

COMET ELECTRONICS

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October 1, 2006

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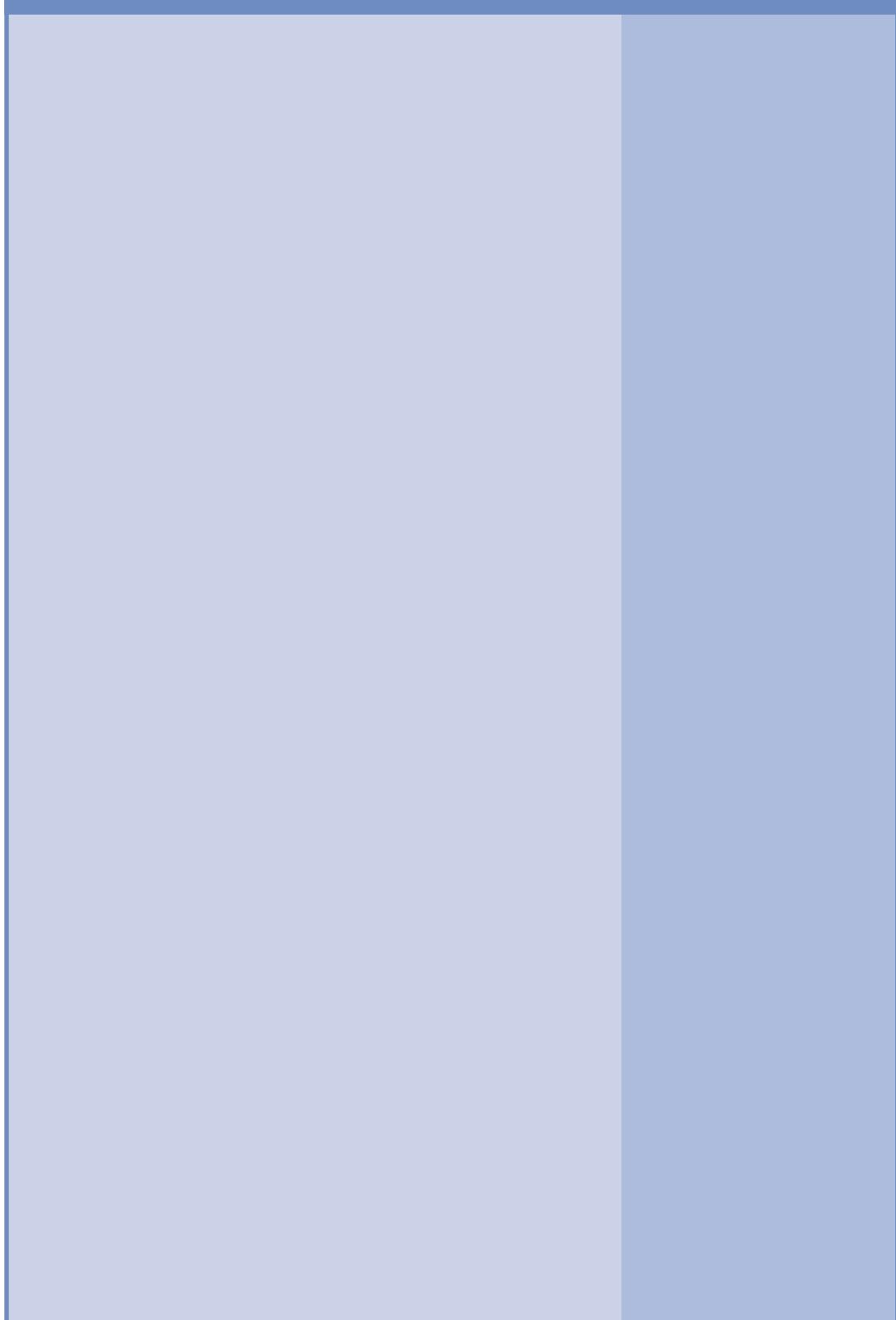
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- cable and cable form manufacture;
- stencil manufacture (laser cutting available also);
- test.

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COMET ELECTRONICS



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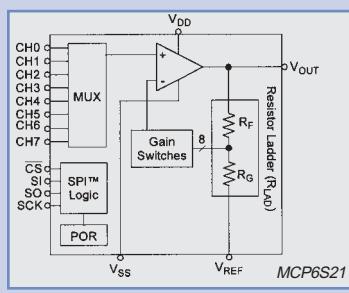
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Operational Amplifiers

			1-4	5-24	25-99	100+	500+
OP07CP	DIP8	1 OA 60uV,0.8nA, $\pm 1.8nA,\pm 3\pm 18V,0.6MHz$	0.339	0.280	0.258	0.219	
OP07CD SMD	SO8	1 OA 60uV,0.8nA, $\pm 1.8nA,\pm 3\pm 18V,0.6MHz$	0.339	0.280	0.258	0.218	
TL061CN	DIP8	1 OA 3mV,5pA,30pA, $\pm 1.5V\pm 18V,200uA,1MHz$	0.176	0.160	0.147	0.129	0.123
TL062CN	DIP8	2 OA 3mV,5pA,30pA, $\pm 1.5V\pm 18V,200uA,1MHz$	0.176	0.160	0.147	0.129	0.123
TL062CD SMD	SO8	2 OA 3mV,5pA,30pA, $\pm 1.5V\pm 18V,200uA,1MHz$	0.174	0.158	0.146	0.128	0.122
TL064CN	DIP14	4 OA 3mV,5pA,30pA, $\pm 1.5V\pm 18V,200uA,1MHz$	0.243	0.221	0.204	0.178	0.170
TL064CD SMD	SO14	4 OA 3mV,5pA,30pA, $\pm 1.5V\pm 18V,200uA,1MHz$	0.250	0.227	0.210	0.184	0.175
TL071CN	DIP8	1 OA,3mV,5pA,65pA, $\pm 3.5V\pm 18V,1.4mA,3MHz$	0.176	0.160	0.147	0.129	0.123
TL072CN	DIP8	2 OA,3mV,5pA,65pA, $\pm 3.5V\pm 18V,1.4mA,3MHz$	0.176	0.160	0.147	0.129	0.123
TL072CD SMD	SO8	2 OA,3mV,5pA,65pA, $\pm 3.5V\pm 18V,1.4mA,3MHz$	0.174	0.158	0.146	0.128	0.122
TL074CN	DIP14	4 OA,3mV,5pA,65pA, $\pm 3.5V\pm 18V,1.4mA,3MHz$	0.223	0.202	0.187	0.163	0.156
TL074CD SMD	SO14	4 OA,3mV,5pA,65pA, $\pm 3.5V\pm 18V,1.4mA,3MHz$	0.238	0.217	0.200	0.175	0.167
TL081CN	DIP8	1 OA,3mV,25pA,50pA, $\pm 3.5V\pm 18V,3.6mA,2.5MHz$	0.176	0.160	0.147	0.129	0.123
TL082CN	DIP8	2 OA,3mV,25pA,50pA, $\pm 3.5V\pm 18V,3.6mA,2.5MHz$	0.176	0.160	0.147	0.129	0.123
TL082CD SMD	SO8	2 OA,3mV,25pA,50pA, $\pm 3.5V\pm 18V,3.6mA,2.5MHz$	0.174	0.158	0.146	0.128	0.122
TL084CN	DIP14	4 OA,3mV,25pA,50pA, $\pm 3.5V\pm 18V,3.6mA,2.5MHz$	0.217	0.197	0.182	0.159	0.152
TL084CD SMD	SO14	4 OA,3mV,25pA,50pA, $\pm 3.5V\pm 18V,3.6mA,2.5MHz$	0.212	0.193	0.178	0.156	0.148
LM324N	DIP14	4 OA,2mV,5nA,45nA,0.7mA,3-32V,1MHz	0.160	0.136	0.118	0.102	0.097
LM324D SMD	SO14	4 OA,2mV,5nA,45nA,0.7mA,3-32V,1MHz	0.149	0.126	0.109	0.095	0.090
LM324/BA10324A ROHM	DIP14	4 OA,2mV,5nA,20nA,0.6mA,3-32V,-40+85°C	0.294	0.267	0.247	0.216	0.206
LM324AF ROHM SMD	SO14	4 OA,2mV,5nA,20nA,0.6mA,3-32V,-40+85°C	0.211	0.192	0.177	0.155	0.148
LF356N	DIP8	1 OA,3mV,3pA,30pA, $\pm 18V,5MHz,12V/us$	0.527	0.479	0.442	0.387	0.368
LM358N	DIP8	2 OA,2mV,5nA,45nA,lq 1mA,3-32V	0.138	0.117	0.101	0.088	0.084
LM358D SMD	SO8	2 OA,2mV,5nA,45nA,3-32V,1mA	0.160	0.135	0.117	0.102	0.097
LM358/BA10358 ROHM	DIP8	2 OA,2mV,5nA,45nA,0.7mA,3-32V,-40+85°C	0.207	0.189	0.174	0.152	0.145
LM358F ROHM SMD	SO8	2 OA,2mV,5nA,45nA,0.7mA,3-32V,-40+85°C	0.177	0.161	0.149	0.130	0.124
MAX472CPA	DIP8	1 OA,120uV,0.4uA,20uA,3-36V,current-sense	4.044	3.595	3.206	2.996	
MAX472EPA	DIP8	1 OA,120uV,0.4uA,20uA,3-36V,current-sense,ind.t.	5.261	4.677	4.170	3.897	
UA741CN	DIP8	1 OA,2mV,20nA,80nA, $\pm 22V,1.4mA$	0.155	0.141	0.130	0.114	0.108
MC1458CN	DIP8	2 OA,1mV,80nA,200nA, $\pm 18V$	0.155	0.132	0.114	0.099	0.094
MC1458D SMD	SO8	2 OA,1mV,80nA,200nA, $\pm 18V$	0.144	0.122	0.106	0.092	0.087
LM2902N	DIP14	4 OA,2mV,5nA,45nA,0.7mA,3-26V,-40+85°C	0.179	0.152	0.131	0.114	0.108
LM2904N	DIP8	2 OA,2mV,5nA,45nA,lq 1mA,3-26V,-40+85°C	0.167	0.142	0.123	0.106	0.101
LMC6482AIM	SO8	2 OA,0.75mV,2pA,4pA,lq 1.6mA,3-15.5V,-40+85°C	0.992	0.923	0.862	0.763	
CA3130E	DIP8	1 OA,5mV,0.5pA,5pA,5-16V,10mA,15MHz	0.938	0.873	0.815	0.721	
CA3140E	DIP8	1 OA,5mV,0.5pA,10pA,36V,4mA,4.5MHz	0.520	0.484	0.452	0.400	
CA3240E	DIP8	2 OA,5mV,0.5pA,10pA,36V,8.4mA,4.5MHz	0.975	0.908	0.848	0.750	
MAX4238ASA	SO8	1 OA,2uV,1pA,2pA,0.6mA,2.7-5.5V,1MHz	1.687	1.499	1.337	1.249	
NE5534	DIP8	1 OA,0.5mV,20nA,500nA, $\pm 22V,4mA,10MHz$	0.293	0.272	0.254	0.225	
NE5534D SMD	SO8	1 OA,0.5mV,20nA,500nA, $\pm 22V,4mA,10MHz$	0.238	0.222	0.207	0.183	

Operational Amplifiers MICROCHIP

			1-4	5-24	25-99	100+
MCP601-I/P	DIP8	1 OA 2mV,1pA,2.7-5.5V,230uA,2.8MHz	0.513	0.475	0.391	0.380
MCP601-I/SN	NS08	1 OA 2mV,1pA,2.7-5.5V,230uA,2.8MHz	0.513	0.475	0.391	0.380
MCP602-I/P	DIP8	2 OA 2mV,1pA,2.7-5.5V,230uA,2.8MHz	0.662	0.613	0.505	0.490
MCP602-I/SN	NS08	2 OA 2mV,1pA,2.7-5.5V,230uA,2.8MHz	0.662	0.613	0.505	0.490
MCP603-I/P	DIP8	1 OA 2mV,1pA,2.7-5.5V,230uA,2.8MHz,C/S	0.540	0.500	0.412	0.400
MCP603-I/SN	NS08	1 OA 2mV,1pA,2.7-5.5V,230uA,2.8MHz,C/S	0.540	0.500	0.412	0.400
MCP604-I/P	DIP14	4 OA 2mV,1pA,2.7-5.5V,230uA,2.8MHz	1.229	1.138	0.937	0.910
MCP604-I/SL	NS014	4 OA 2mV,1pA,2.7-5.5V,230uA,2.8MHz	1.229	1.138	0.937	0.910
MCP606-I/P	DIP8	1 OA 0.2mV,80pA,25uA,2.7-5.5V,155kHz	0.770	0.713	0.587	0.570
MCP606-I/SN	NS08	1 OA 0.2mV,80pA,25uA,2.7-5.5V,155kHz	0.770	0.713	0.587	0.570
MCP607-I/P	DIP8	2 OA 0.2mV,80pA,25uA,2.7-5.5V,155kHz	1.026	0.950	0.783	0.760
MCP607-I/SN	NS08	2 OA 0.2mV,80pA,25uA,2.7-5.5V,155kHz	1.026	0.950	0.783	0.760
MCP608-I/P	DIP8	1 OA 0.2mV,80pA,25uA,2.7-5.5V,155kHz,C/S	0.824	0.763	0.628	0.610
MCP608-I/SN	NS08	1 OA 0.2mV,80pA,25uA,2.7-5.5V,155kHz,C/S	0.824	0.763	0.628	0.610
MCP609-I/P	DIP14	4 OA 0.2mV,80pA,25uA,2.7-5.5V,155kHz	1.539	1.425	1.174	1.140
MCP609-I/SL	NS014	4 OA 0.2mV,80pA,25uA,2.7-5.5V,155kHz	1.539	1.425	1.174	1.140
MCP6041-I/P ^{NEW}	DIP8	1 OA 3mV,1pA,1pA,1.4-5.5V,600nA,14kHz	0.635	0.588	0.484	0.470
MCP6041-I/SN ^{NEW}	NS08	1 OA 3mV,1pA,1pA,1.4-5.5V,600nA,14kHz	0.635	0.588	0.484	0.470
MCP6022-I/P	DIP8	2 OA 0.5mV,30pA,1pA,2.5-5.5V,1.0mA,10MHz	1.377	1.275	1.051	1.020
MCP6022-I/SN	NS08	2 OA 0.5mV,30pA,1pA,2.5-5.5V,1.0mA,10MHz	1.377	1.275	1.051	1.020
MCP6024-I/P	DIP14	4 OA 0.5mV,30pA,1pA,2.5-5.5V,1.0mA,10MHz	2.025	1.875	1.545	1.500



Operational Amplifiers MICROCHIP

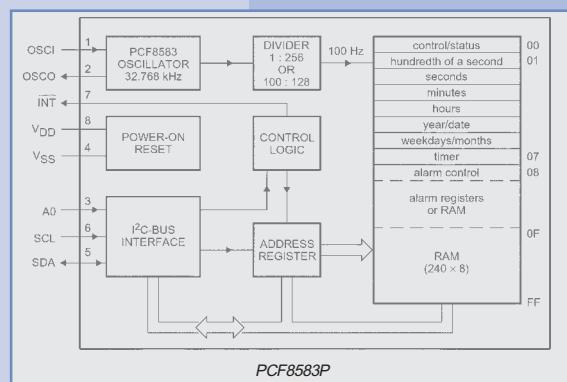
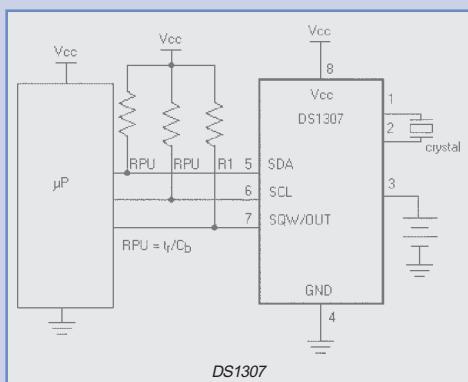
			1-4	5-24	25-99	100+
MCP6142-I/P	DIP8	2 OA 3mV, 1pA, 1.4-5.5V, 600nA, 100kHz	0.851	0.788	0.649	0.630
MCP6142-I/SN	NS08	2 OA 3mV, 1pA, 1.4-5.5V, 600nA, 100kHz	0.851	0.788	0.649	0.630
MCP6S21-I/P	DIP8	1ch. PGA, 8 Gain Steps, 2.5-5.5V, 1.1mA, 12MHz, SPI	1.404	1.300	1.071	1.040
MCP6S21-I/SN	NS08	1ch. PGA, 8 Gain Steps, 2.5-5.5V, 1.1mA, 12MHz, SPI	1.337	1.238	1.020	0.990
MCP6S28-I/P _{NEW}	DIP16	8ch. PGA, 8 Gain Steps, 2.5-5.5V, 1.1mA, 12MHz, SPI	2.943	2.725	2.245	2.180
MCP6S28-I/SN _{NEW}	NS016	8ch. PGA, 8 Gain Steps, 2.5-5.5V, 1.1mA, 12MHz, SPI	2.687	2.488	2.050	1.990

Comparators

			1-4	5-24	25-99	100+	500+
LM311N	DIP8	1 comp. 2mV, 6nA, 100nA, 5-36V, 5mA	0.166	0.141	0.121	0.105	0.100
LM311D SMD	NS08	1 comp. 2mV, 6nA, 100nA, 5-36V, 5mA	0.171	0.145	0.126	0.109	0.104
LM339N	DIP14	4 comp. 2mV, 5nA, 25nA, 3-36V, 0.8mA	0.169	0.143	0.124	0.107	0.102
LM339D SMD	NS014	4 comp. 2mV, 5nA, 25nA, 3-36V, 0.8mA	0.146	0.124	0.107	0.093	0.089
LM339/BA10339 ROHM	DIP14	4 comp. 2mV, 5nA, 25nA, 3-36V, -40+85°C	0.315	0.279	0.252	0.220	0.210
LM339F ROHM SMD	NS014	4 comp. 2mV, 5nA, 25nA, 3-36V, -40+85°C	0.197	0.175	0.158	0.138	0.131
LM393N	DIP8	2 comp. 2mV, 5nA, 25nA, 3-36V, 0.4mA	0.163	0.138	0.119	0.104	0.099
LM393D SMD	NS08	2 comp. 2mV, 5nA, 25nA, 3-36V, 0.4mA	0.163	0.138	0.119	0.104	0.099
LM393/BA393 ROHM	DIP8	2 comp. 2mV, 5nA, 25nA, 3-36V, -40+85°C	0.192	0.174	0.161	0.141	0.134
LM393F ROHM SMD	NS08	2 comp. 2mV, 5nA, 25nA, 3-36V, -40+85°C	0.156	0.132	0.114	0.099	0.094
LM2901N	DIP14	4 comp. 1mV, 5nA, 25nA, 2-36V, 1.1mA, -40+85°C	0.176	0.149	0.129	0.112	0.107
LM2903N	DIP8	2 comp. 1mV, 5nA, 25nA, 2-36V, 0.4mA, -40+85°C	0.175	0.148	0.128	0.111	0.106
MAX903CSA	NS08	1 comp. 1mV, 4uA, 100nA, 5-10V, High Speed, Low power	6.194	5.744	5.344	4.995	

Timers, RTC

			1-4	5-24	25-99	100+	500+
LMC555CN (7555)	DIP8	DIP8 CMOS timer 555, 1.5-15V	0.446	0.396	0.357	0.312	0.297
LMC555CD (7555) SMD	SO8	SO8 CMOS timer 555, 1.5-15V	0.408	0.361	0.326	0.285	0.272
NE555N	DIP8	DIP8 timer 555, 4.5-16V	0.134	0.119	0.107	0.094	0.090
NE555D SMD	SO8	SO8 timer 555, 4.5-16V	0.135	0.120	0.108	0.095	0.090
NE556N	DIP14	DIP14 Dual Timer, 4.5-16V	0.205	0.184	0.172	0.152	
NE556D SMD	SO14	SO14 Dual Timer, 4.5-16V	0.196	0.176	0.164	0.145	
DS12C887	DIP24	real time clock+quartz+RAM+lithium batt.-10years	4.796	4.448	4.138	3.868	
DS1307	DIP8	64 x 8 Serial Real Time Clock 0/+70°C	2.292	2.125	1.977	1.848	
DS1307N	DIP8	64 x 8 Serial Real Time Clock -40+85°C	2.128	1.973	1.836	1.716	
DS1302Z SMD	SO8	Trickle-charge serial timekeeper	2.468	2.289	2.130	1.990	
DS1307Z SMD	SO8	64 x 8 Serial Real Time Clock 0/+70°C	2.451	2.273	2.115	1.977	
DS1307ZN SMD	SO8	64 x 8 Serial Real Time Clock, -40+85°C	3.089	2.865	2.666	2.491	
DS1338Z-3 SMD	SO8	Serial Real Time Clock, 3V	2.300	2.133	1.985	1.855	
PCF8583P	DIP8	241 x 8 Serial real time clock, -40+85°C	2.007	1.852	1.775	1.543	

**Audio Integrated Circuits**

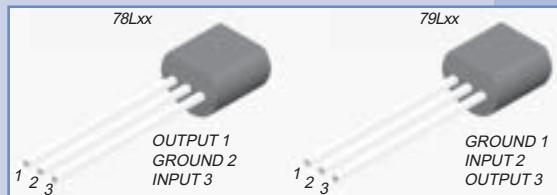
			1-24	25-99	100-499	500+
LM386N-1	DIP8	325mW/8Ohm, THD 10%, 4-12V	0.383	0.340	0.304	0.284
TBA820M	DIP8	2W/8 Ohm 16V 20 KHz	0.282	0.251	0.223	0.209
TDA2003V	TO220-5	10W/2 Ohm, THD 0.15%, 8-18V	0.449	0.399	0.356	0.333

Voltage References

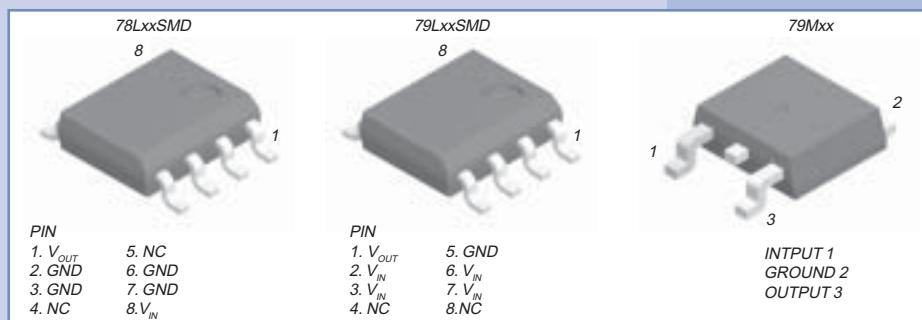
			1-4	5-24	25-99	100+	500+
LM336Z-2.5	TO92	2.5V, If=10mA max., 0/+70°C	0.173	0.155	0.143	0.133	0.123
LM336Z-5.0	TO92	5V If=10mA max 54 ppm/°C	0.173	0.155	0.143	0.133	0.123
LM385Z-1.2	TO92	1.2V If=20mA max 150 ppm/°C	0.326	0.293	0.270	0.252	0.233
LM385M-1.2 SMD	NS08	1.2V If=20mA max 150 ppm/°C	0.388	0.353	0.310	0.287	
LM385Z-2.5	TO92	2.5V If=10mA max 150 ppm/°C	0.343	0.309	0.284	0.264	0.245
LM385M-2.5 SMD	NS08	2.5V If=10mA max 150 ppm/°C	0.388	0.353	0.310	0.287	
TL431CLP MBR	TO92	2.5V Shunt reg. 2% 50 ppm/°C	0.125	0.106	0.092	0.080	0.076
TL431 DIV	TO92	2.5V Shunt reg. 2% 50 ppm/°C	0.080	0.068	0.059	0.051	0.048
TL431CD SMD	NS08	2.5V Shunt reg. 2% 50 ppm/°C	0.156	0.132	0.114	0.099	0.095
ZR431F SMD	SOT23	2.5V Shunt reg. 2% 55 ppm/°C	0.279	0.257	0.244	0.231	0.218
ZRC250Y02	TO92	2.5V 90 ppm/°C min 20uA max 5mA E-line	0.704	0.649	0.616	0.583	0.550

Voltage Regulators - Linear**100mA TO92**

			1-4	5-24	25-99	100+	500+
78L05	TO92	5V 100mA 5%	0.085	0.075	0.068	0.059	0.057
78L05 ZETEX	TO92	5V 200mA / 600mW -55+125°C 0.1mV/°C	0.264	0.234	0.211	0.185	0.176
78L06	TO92	6V 100mA 5%	0.135	0.120	0.108	0.095	0.090
78L08	TO92	8V 100mA 5%	0.122	0.108	0.097	0.085	0.081
78L09	TO92	9V 100mA 5%	0.101	0.090	0.081	0.071	0.067
78L12	TO92	12V 100mA 5%	0.097	0.086	0.078	0.068	0.065
78L15	TO92	15V 100mA 5%	0.124	0.110	0.099	0.087	0.083
79L05	TO92	-5V 100mA 5%	0.146	0.129	0.117	0.102	0.097
79L12	TO92	-12V 100mA 5%	0.102	0.090	0.082	0.071	0.068
79L15	TO92	-15V 100mA 5%	0.130	0.115	0.104	0.091	0.086

**100mA SMD**

			1-4	5-24	25-99	100-499	500+
78L33 SMD	S08	3.3V 100mA 5%	0.124	0.108	0.103	0.097	0.092
78L33 SMD SOT89	SOT89	3.3V 100mA 5%	0.211	0.185	0.175	0.166	0.156
78L05 SMD S08	S08	5V 100mA 5%	0.115	0.100	0.095	0.090	0.085
78L05 SMD SOT89 MBR	SOT89	5V 150mA 5%	0.159	0.139	0.132	0.125	0.118
78L05 SMD SOT89 DIV	SOT89	5V 100mA	0.127	0.111	0.105	0.100	0.094
78M05 SMD	DPAK	5V 500mA	0.295	0.263	0.234	0.219	
7805 SMD	TO263	5V 1A	0.382	0.340	0.303	0.283	
7805FP ROHM SMD	TO252	5V 1A 5%	0.369	0.328	0.292	0.273	
78L08 SMD	S08	8V 100mA 5%	0.130	0.113	0.107	0.102	0.096
78L12 SMD	S08	12V 100mA 5%	0.123	0.107	0.102	0.097	0.091
79L05 SMD	S08	-5V 100mA 5%	0.123	0.108	0.102	0.097	0.091

**LDO**

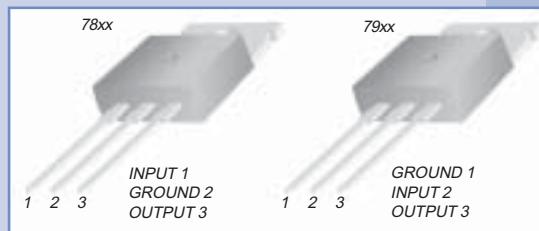
			1-4	5-24	25-99	100+
MCP1700T-1502E/TT	SOT23-3	1.5V±2% 250mA, LDO 0.3V, $V_{IN_{max}}=6V$	0.405	0.375	0.309	0.300
MCP1700T-1802E/TT	SOT23-3	1.8V±2% 250mA, LDO 0.3V, $V_{IN_{max}}=6V$	0.405	0.375	0.309	0.300
MCP1700T-2502E/TT	SOT23-3	2.5V±2% 250mA, LDO 0.3V, $V_{IN_{max}}=6V$	0.405	0.375	0.309	0.300
MCP1700T-2502E/MB ^{NEW}	SOT89-3	2.5V±2% 250mA, LDO 0.3V, $V_{IN_{max}}=6V$	0.405	0.375	0.309	0.300
MCP1700T-3002E/TT	SOT23	3.0V±2% 250mA, LDO 0.3V, $V_{IN_{max}}=6V$	0.405	0.375	0.309	0.300
MCP1700T-3302E/TT	SOT23	3.3V±2% 250mA, LDO 0.3V, $V_{IN_{max}}=6V$	0.405	0.375	0.309	0.300
MCP1700T-3302E/MB ^{NEW}	SOT89	3.3V±2% 250mA, LDO 0.3V, $V_{IN_{max}}=6V$	0.405	0.375	0.309	0.300
MCP1700T-5002E/TT	SOT23	5.0V±2% 250mA, LDO 0.3V, $V_{IN_{max}}=6V$	0.405	0.375	0.309	0.300
MCP1700T-5002E/MB ^{NEW}	SOT89	5.0V±2% 250mA, LDO 0.3V, $V_{IN_{max}}=6V$	0.405	0.375	0.309	0.300
TC1117-3.0VOA	S08	3.0V 300mA LDO ON/OFF, ERROR OUT & Bypass	0.884	0.819	0.675	0.655
TC1263-3.0VETTR	DDPAK5	3.0V 500mA CMOS LDO ON/OFF	1.435	1.329	1.095	1.063
LM2931AZ-5.0	TO92	5V 0.1A, LDO 0.16V	0.373	0.331	0.296	0.276
BH33FB1WG-TR ROHM	SSOP5	3.3V±1% $V_{IN_{max}}=150mA$, LDO 0.25V, ON/OFF $I_{LSTBY}=1\mu A$	0.195	0.174	0.155	0.145

LDO 1A ROHM

			1-4	5-24	25-99	100+
BA033T ROHM	TO220FP	3.3V±5% 1A, LDO 0.3V Insulated package	0.567	0.504	0.450	0.420
BA033ST ROHM	TO220FP5	3.3V±5% 1A, LDO 0.3V, ON/OFF Insulated package	0.656	0.583	0.520	0.486
BA033SFP ROHM	TO252-5	3.3V±5% 1A, LDO 0.3V, ON/OFF Insulated package	0.557	0.495	0.442	0.413
BA033CC0WFP ROHM	TO252-5	3.3V±2% 1A, LDO 0.3V, ON/OFF Insulated package	0.476	0.423	0.377	0.353
BA05T ROHM	TO220FP	5V±5% 1A, LDO 0.3V Insulated package	0.567	0.504	0.450	0.420
BA05ST ROHM	TO220FP5	5V±5% 1A, LDO 0.3V, ON/OFF Insulated package	0.648	0.576	0.514	0.480
BA05CC0WT ROHM	TO220FP5	5V±2% 1A, LDO 0.3V, ON/OFF Insulated package	0.566	0.503	0.449	0.420
BA05CC0WFP ROHM	TO252-5	5V±2% 1A, LDO 0.3V, ON/OFF Insulated package	0.476	0.423	0.377	0.353
BA12T ROHM ^{NEW}	TO220FP	12V±5% 1A, LDO 0.3V Insulated package	0.648	0.576	0.514	0.480

Voltage Regulators**1A**

			1-4	5-24	25-99	100-499	500+
7805 DIV	TO220	5V 1A	0.172	0.153	0.138	0.121	0.115
7805 MBR	TO220	5V 1.5A 4%	0.223	0.197	0.178	0.156	0.148
7805/BA17805T ROHM	TO220FP	5V 1A 2W Insulated package -40+85°C	0.375	0.333	0.300	0.263	0.250
7806	TO220	6V 1A	0.225	0.199	0.180	0.157	0.150
7808	TO220	8V 1A	0.220	0.195	0.176	0.154	0.147
7809	TO220	9V 1A	0.192	0.170	0.154	0.134	0.128
7810	TO220	10V 1A	0.276	0.245	0.221	0.193	0.184
7812	TO220	12V 1A	0.177	0.157	0.141	0.124	0.118
7812 SMD	TO263	12V 1A	0.399	0.354	0.320	0.280	0.266
7812/BA17812T ROHM	TO220FP	12V 1A 2W Insulated package -40+85°C	0.375	0.333	0.300	0.263	0.250
7815	TO220	15V 1A	0.218	0.193	0.174	0.153	0.145
7815/BA17815T ROHM	TO220FP	15V 1A 2W Insulated package -40+85°C	0.375	0.333	0.300	0.263	0.250
7818	TO220	18V 1A	0.228	0.202	0.182	0.160	0.152
7824	TO220	24V 1A	0.230	0.204	0.184	0.161	0.154
7824/BA17824T ROHM	TO220FP	24V 1A 2W Insulated package -40+85°C	0.375	0.333	0.300	0.263	0.250
7905	TO220	-5V 1A	0.231	0.205	0.185	0.162	0.154
7906	TO220	-6V 1A	0.231	0.205	0.185	0.162	0.154
7908	TO220	-8V 1A	0.231	0.205	0.185	0.162	0.154
7912	TO220	-12V 1A	0.242	0.215	0.194	0.169	0.161
7915	TO220	-15V 1A	0.245	0.217	0.196	0.171	0.163
7924	TO220	-24V 1A	0.240	0.213	0.192	0.168	0.160

**2A**

			1-4	5-24	25-99	100+
78S05	TO220	5V 2A	0.438	0.389	0.347	0.324
78S12	TO220	12V 2A	0.438	0.389	0.347	0.324
78S15	TO220	15V 2A	0.438	0.389	0.347	0.324
78S24	TO220	24V 2A	0.438	0.389	0.347	0.324

3A

			1-4	5-24	25-99	100+
78T05	TO220	5V 3A 25W	0.724	0.644	0.574	0.537

Adjustable

			1-4	5-24	25-99	100-499	500+
LM317LZ	TO92	1.2-37V 100mA Adjustable	0.188	0.166	0.150	0.131	0.125
LM317T	TO220	1.2-37V 1.5A Adjustable	0.241	0.213	0.193	0.169	0.160
LM317S SMD	TO263	1.2-37V 1.5A Adjustable	1.103	0.981	0.875	0.817	
LM337LZ	TO92	-1.2/-37V 100mA Negative, Adjustable	0.344	0.305	0.272	0.254	
LM337T	TO220	-1.2/-37V 1.5A Negative	0.331	0.294	0.263	0.245	
UA723CN	DIP14	2-37V 150mA Adjustable	0.340	0.302	0.269	0.252	

Voltage Regulators - Switching Mode

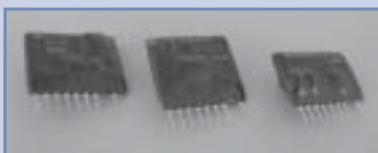
			1-4	5-24	25-99	100-499	500+
TL494CN	DIP16	500mA 1-200kHz 0-70C	0.272	0.242	0.218	0.191	0.182
LM2574N-5.0	DIP8	52kHz 5V 0.5A Uin 1.3-40V	1.145	1.018	0.908	0.848	
LM2575T-ADJ	TO220	52kHz 1.23-37V 1A Uin 1.4-40V	1.754	1.559	1.390	1.299	
LM2575T-5.0	TO220	52kHz 5V 1A Uin 1.4-40V	1.508	1.340	1.195	1.117	
LM2575T-12	TO220	52kHz 12V 1A Uin 1.4-40V	1.758	1.562	1.393	1.302	
LM2575SS-5.0 SMD	TO263	52kHz 5V 1A Uin 1.4-40V	1.508	1.340	1.195	1.117	
LM2575D2T-ADJ SMD	TO263	52kHz 1.23-37V 1A Uin 1.4-40V	1.994	1.772	1.580	1.477	
LM2575HVT-5.0	TO220	52kHz 5V 1A Uin 1.4-60V	4.727	4.291	3.855	3.636	
LM2575HVT-ADJ	TO220	52kHz 1.23-57V 1A Uin 1.4-60V	4.918	4.464	4.010	3.783	
LM2576T-5.0	TO220	52kHz 5V 3A Uin 1.4-40V	1.846	1.641	1.463	1.368	
LM2576T-12	TO220	52kHz 12V 3A Uin 1.4-40V	2.197	1.994	1.791	1.690	
LM2576T-ADJ	TO220	52kHz 1.23-37V 3A Uin 1.4-40V	1.683	1.496	1.334	1.246	
LM2576S-5.0 SMD	TO263	52kHz 5V 3A Uin 1.4-40V	2.115	1.920	1.725	1.627	
LM2576S-ADJ SMD	TO263	52kHz 1.23-37V 3A Uin 1.4-40V	2.115	1.920	1.725	1.627	
LM2576HVT-5.0	TO220	52kHz 5V 3A Uin 1.4-60V	5.693	5.168	4.642	4.379	
LM3578AN	DIP8	1Hz-100kHz 750mA up/down/inverting	1.673	1.487	1.326	1.239	
UC3842N	DIP8	current mode controller to 500kHz, 1A	0.388	0.344	0.310	0.271	0.258
UC3843N	DIP8	current mode controller to 500kHz, 1A	0.388	0.344	0.310	0.271	0.258
UC3843D SMD	SO14	current mode controller to 500kHz, 1A	0.388	0.344	0.310	0.271	0.258
UC3844N	DIP8	current mode controller to 500kHz, 1A	0.403	0.357	0.322	0.282	0.268
UC3844D SMD	SO14	current mode controller to 500kHz, 1A	0.503	0.446	0.402	0.352	0.335
MC34063AP1/ACN MBR	DIP8	1Hz-100kHz 1.5A up/down/inverting	0.463	0.410	0.370	0.324	0.309
MC34063AP1/ACN DIV	DIP8	1Hz-100kHz 1.5A up/down/inverting	0.183	0.162	0.146	0.128	0.122

Voltage Regulators - Switching Mode

			1-4	5-24	25-99	100-499	500+
MC34063AD SMD MBR	SO8	1Hz-100kHz 1,5A up/down/inverting	0.460	0.408	0.368	0.322	0.306
MC34063AD SMD DIV	SO8	1Hz-100kHz 1,5A up/down/inverting	0.194	0.172	0.155	0.136	0.129
MAX5003CSE	SO16	11-110V / 300kHz Forward / Flyback PWM	2.643	2.399	2.155	2.033	
MAX5021EUA	uMAX	Low-Power, Current-Mode PWM Controllers for 1 uMAX	1.718	1.527	1.362	1.273	
LNK501P	DIP8B	Low cost CC/CV switcher, 4W	0.996	0.886	0.790	0.738	
BD9001F ROHM SMD NEW	SO8	50-300kHz, 2A, In 5-48V, Adj Out 1-Vin, -40+95°C, 0.69W	1.029	0.915	0.816	0.762	
BD9778F ROHM SMD NEW	SO8	50-500kHz, 2A, In 5-35V, Adj Out 1-Vin, -40+125°C, 0.69W	1.122	0.997	0.889	0.831	
BD9778HFP ROHM SMD	HRP-7	50-500kHz, 2A, In 5-35V, Adj Out 1-Vin, -40+125°C, 5.5W	1.142	1.015	0.905	0.846	
BD9781HFP ROHM SMD	HRP-7	50-500kHz, 4A, In 5-35V, Adj Out 1-Vin, -40+125°C, 5.5W	1.828	1.625	1.449	1.354	
MCP1650S-E/MS	MSOP8	750kHz, 560/440mA, In 2.7-5.5V, Adj Out 2.5-Ext Tx, -40+125°	1.491	1.325	1.182	1.105	

DC/DC hybrid modules

			1-4	5-24	25-99	100+
BP5020A(BP5220)ROHM	SIP9	DC/DC Hybrid In 8-38V Out 5V/1A	3.580	3.379	3.093	2.864
BP5021A(BP5221)ROHM	SIP9	DC/DC Hybrid In 8-38V Out 5V/0.5A	3.170	2.993	2.739	2.536
BP5022A(BP5222)ROHM	SIP9	DC/DC Hybrid In 15-38V Out 12V/0.5A	3.170	2.993	2.739	2.536
BP5233-33A	SIP11	DC/DC Hybrid In 4.5-5.5V Out 3.3V/3A	6.115	5.773	5.283	4.892
BP5234-33A	SIP11	DC/DC Hybrid In 4.5-5.5V Out 3.3V/4A	6.189	5.843	5.347	4.951
BP5040(BP5041A5)ROHM	SIP10	DC/DC Hybrid In 224-358V Out 5V/0.1A	4.135	3.904	3.573	3.308
BP5041A ROHM	SIP10	DC/DC Hybrid In 224-358V Out 12V/0.1A	3.235	3.054	2.795	2.588
BP5041A15 ROHM	SIP10	DC/DC Hybrid In 224-358V Out 15V/0.1A	3.235	3.054	2.795	2.588
BP5722-12 ROHM	SIP11	DC/DC Hybrid In 224-358V Out 12V/1A Insulated	3.521	3.324	3.042	2.817



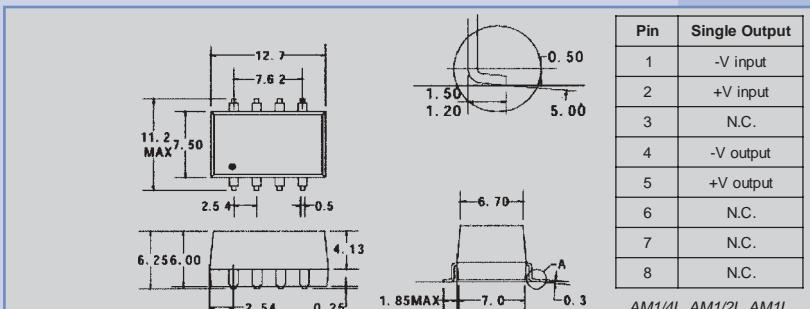
BP502x



BP5041

DC/DC converters AIMTEC

			1+
AM1/4L-0505S-NZ NEW	SO8	0.25W/In5/Out5VDC Isol. 1000VDC UL94	3.941
AM1/4L-1205S-NZ NEW	SO8	0.25W/In12/Out5VDC Isol. 1000VDC UL94	3.941
AM1/2L-0505S-NZ NEW	SO8	0.5W/In5/Out5VDC Isol. 1000VDC UL94	4.063
AM1/2L-1205S-NZ NEW	SO8	0.5W/In12/Out5VDC Isol. 1000VDC UL94	4.063
AM1D-0505D-NZ	SIP7	1W/In5/Out+5/-5VDC Isol. 1000VDC	4.013
AM1D-0505S-NZ	SIP7	1W/In5/Out5VDC Isol. 1000VDC	4.027
AM1D-1205D-NZ	SIP7	1W/In12/Out+5/-5VDC Isol. 1000VDC	4.102
AM1D-1205S-NZ	SIP7	1W/In12/Out5VDC Isol. 1000VDC	4.102
AM1D-1212D-NZ	SIP7	1W/In12/Out+12/-12VDC Isol. 1000VDC	4.102
AM1D-1212S-NZ	SIP7	1W/In12/Out12VDC Isol. 1000VDC	4.102
AM1D-1215SH30-NZ	SIP7	1W/In12/Out15VDC Isol. 3000VDC UL94	5.614
AM1D-1224SZ	SIP7	1W/In12/Out24VDC Isol. 1000VDC	5.099
AM1D-2412DH30-NZ NEW	SIP7	1W/In24/Out+12/-12VDC Isol. 3000VDC	5.721
AM1L-0505D-N	SO10	1W/In5/Out+5/-5VDC Isol. 1000VDC	4.468
AM1L-0505S-NZ NEW	SO8	1W/In5/Out5VDC Isol. 1000VDC	4.468
AM1L-1205S-NZ NEW	SO8	1W/In12/Out5VDC Isol. 1000VDC	4.468
AM1L-1212D-N	SO10	1W/In12/Out+12/-12VDC Isol. 1000VDC	4.468
AM1L-1212S-NZ	SO8	1W/In12/Out12VDC Isol. 1000VDC	4.468



Pin	Single Output
1	-V input
2	+V input
3	N.C.
4	-V output
5	+V output
6	N.C.
7	N.C.
8	N.C.

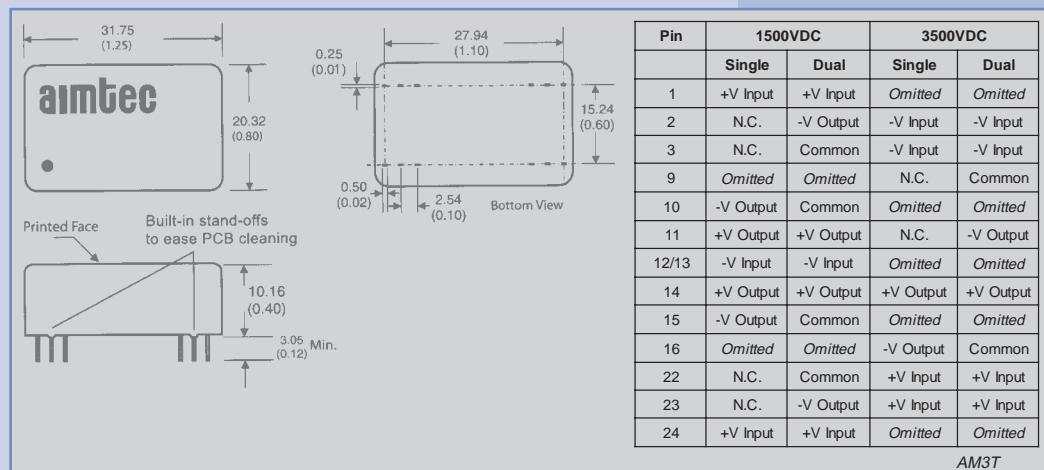
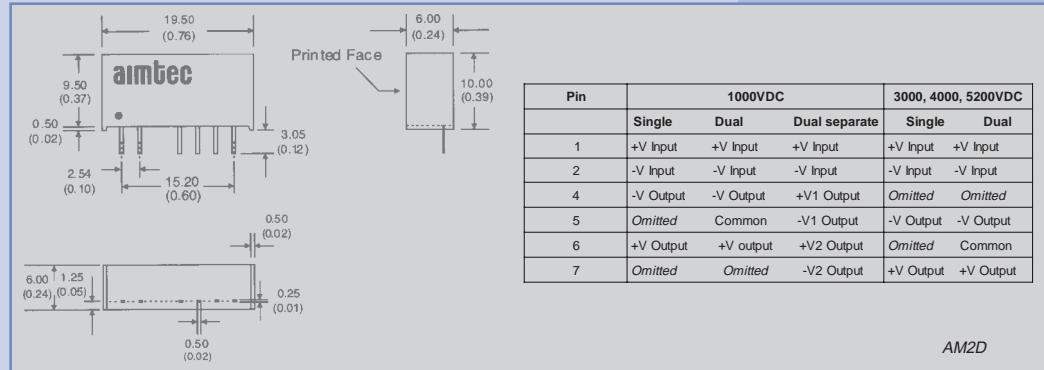
AM1/4L, AM1/2L, AM1L

			1+
AM1S-0512S-NZ	SIP4	1W/In5/Out12VDC Isol. 1000VDC UL94	3.850
AM1S-1205S-NZ	SIP4	1W/In12/Out5VDC Isol. 1000VDC UL94	3.850
AM1S-2405S-NZ NEW	SIP4	1W/In24/Out 5VDC Isol. 1000VDC UL94	4.177
AM1S-2412S-N	SIP4	1W/In24/Out 12VDC Isol. 1000VDC UL94	4.115
AM1S-0505S-NZ	SIP4	1W/In5/Out5VDC Isol. 1000VDC	3.850
AM1S-0505SH30Z	SIP4	1W/In5/Out5VDC Isol. 3000VDC	4.875

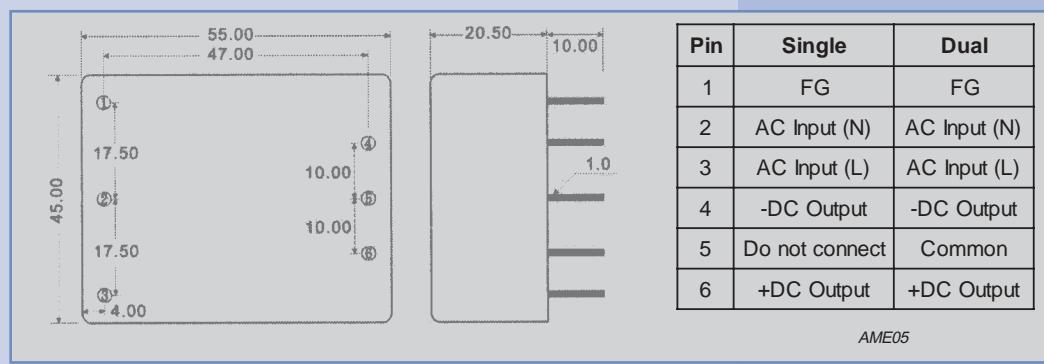
DC/DC converters AIMTEC

1+

AM2D-0505S-NZ	SIP7	2W/In5/Out5VDC Isol.1000VDC	4.374
AM2D-1212S-NZ	SIP7	2W/In12/Out12VDC Isol.1000VDC	3.926
AM2D-1212D-NZ	SIP7	2W/In12/Out+12/-12VDC Isol.1000VDC	4.374
AM2D-2424DH30Z ^{NEW}	SIP7	2W/In24/Out+24/-24VDC Isol.3000VDC	6.309
AM3T-1203S	DIP24	3W/In9-18/Out3VDC Isol.1500VDC	14.190
AM3TW-2405SH35	DIP24	3W/In9-36/Out5VDC Isol.3500VDC	18.877
AM3T-2405SZ	DIP24	3W/In18-36/Out5VDC Isol.1500VDC	13.914
AM3TW-2412SH35Z	DIP24	3W/In9-36/Out12VDC Isol.3500VDC	19.827
AM3TW-2412S	DIP24	3W/In9-36/Out12VDC Isol.1500VDC	17.103
AM6T-1205SZ	DIP24	6W/In9-18/Out5VDC Isol.1500VDC	15.139



AM6T-1212S	DIP24	6W/In9-18/Out12VDC Isol.1500VDC	16.351
AM6T-1224SZ	DIP24	6W/In9-18/Out24VDC Isol.1500VDC	15.608
AM15E-2405SZ ^{EW}	DIP24	15W/In18-36/Out5VDC Isol.1500VDC	26.233
AM15E-2412SZ ^{EW}	DIP24	15W/In18-36/Out12VDC Isol.1500VDC	25.600

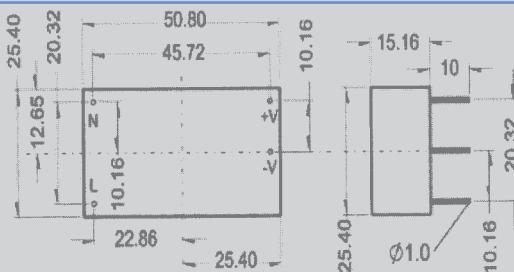


AC/DC converters AIMTEC

1+

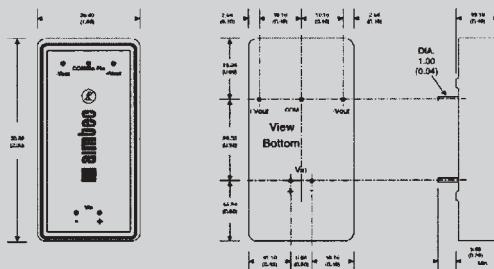
AME05-5SZ	5W/In90-260VAC/Out5VDC
AME05-12SZ	5W/In90-260VAC/Out12VDC
AMEL05-12SZ	5W/In90-260VAC/Out12VDC
AME30-12SZ	30W/In90-260VAC/Out12VDC

23.582
23.582
25.829
40.752



Pin	Single
N	AC Input
L	AC Input
+V	+DC Output
-V	-DC Output

AMELO5



Pin	Single	Dual
1	-V Input	-V Input
2	+V Input	+V Input
3	-V Output	-V Output
4	No Pin	Common
5	+V Output	+V Output

AM15E

AC/DC converters POWER INTEGRATION

1-4 5-24 25-99 100+

TNY254P	DIP8	8W 0.4A -0.3-700V 28 Ohm@25mA
TNY264P	DIP8	9W 0.4A -0.3-700V 28 Ohm@25mA
TNY266P	DIP8	15W 0.56A -0.3-700V 14 Ohm@35mA
TNY267P	DIP8	19W 0.72A -0.3-700V 7.8 Ohm@45mA
TNY268P	DIP8	23W 0.72A -0.3-700V 7.8 Ohm@45mA
TOP224P	DIP8	31W 1.5A -0.3-700V 5.2 Ohm@150mA
TOP224Y	TO220	75W 1.5A -0.3-700V 5.2 Ohm@150mA
TOP225Y	TO220	100W 2A -0.3-700V 3.9 Ohm@200mA
TOP226Y	TO220	125W 2.5A -0.3-700V 3.1 Ohm@250mA
TOP233Y	TO220-7	50W 1.6A -0.3-700V 7.8 Ohm@100mA
TOP244P	DIP8	30W 2.16A -0.3-700V 5.2 Ohm@150mA
TOP244Y	TO220-7	65W 2.16A -0.3-700V 5.2 Ohm@150mA
TOP245Y	TO220-7	85W 2.88A -0.3-700V 3.9 Ohm@200mA
TOP246Y	TO220-7	125W 4.32A -0.3-700V 2.6 Ohm@300mA
TOP247Y	TO220-7	165W 5.76A -0.3-700V 1.95 Ohm@400mA

1.035	0.977	0.894	0.828
1.087	1.026	0.939	0.870
1.305	1.232	1.128	1.044
1.329	1.254	1.148	1.063
1.346	1.270	1.163	1.077
2.482	2.343	2.145	1.986
2.517	2.376	2.174	2.013
3.201	3.022	2.766	2.561
3.527	3.329	3.047	2.821
2.380	2.246	2.056	1.904
2.517	2.376	2.174	2.013
2.648	2.499	2.288	2.118
3.082	2.909	2.663	2.465
3.338	3.151	2.884	2.671
3.612	3.410	3.121	2.890

DC-DC Charge Pumps

1-4 5-24 25-99 100+

MCP1252-ADJ/MS	SO8	In 2.1/2.7-5.5V, 120uA max; V _{out} = 3.3V or 5V or adj, 650kHz
TC1121CPA	DIP8	In 2.4-5.5V, 100uA max; V _{out} = -V _{in} or 2V _{in} 100mA; 10kHz osc
TC1121COA	SO8	In 2.4-5.5V, 100uA max; V _{out} = -V _{in} or 2V _{in} 100mA; 10kHz osc
TC1121EOA	SO8	In 2.4-5.5V, 100uA max; V _{out} = -V _{in} or 2V _{in} 100mA; 10kHz osc
TC1240AECHTR	SOT23A6	In 2.5-5.5V, 900uA max; V _{out} = -2V _{in} 40mA; 160kHz osc, SHDN
TC7660COA	SO8	In 1.5-10V, 180uA max; V _{out} = V _{in} or 2V _{in} 20mA; 10kHz osc
TC7660HCOA	NS08	In 1.5-10V, 1mA max; V _{out} = -V _{in} or 2V _{in} 20mA; 120kHz osc
TC7662BCPA	DIP8	In 1.5-15V, 180uA max; V _{out} = -V _{in} or 2V _{in} 20mA; 35kHz osc
TC7662BCOA	NS08	In 1.5-15V, 180uA max; V _{out} = -V _{in} or 2V _{in} 20mA; 35kHz osc
TC7662BEP	DIP8	In 1.5-15V, 180uA max; V _{out} = -V _{in} or 2V _{in} 20mA; 35kHz osc
TC7662BEOA	NS08	In 1.5-15V, 180uA max; V _{out} = -V _{in} or 2V _{in} 20mA; 35kHz osc

1.735	1.542	1.414	1.285
1.602	1.424	1.305	1.186
1.560	1.387	1.271	1.156
1.698	1.510	1.384	1.258
1.049	0.933	0.855	0.777
0.594	0.528	0.484	0.440
0.759	0.675	0.619	0.563
1.422	1.264	1.159	1.053
1.422	1.264	1.159	1.053
1.657	1.473	1.350	1.227
1.657	1.473	1.350	1.227

TC1046VNBT <small>NEW</small>	SOT23A-6	High Precision Temp-to-Voltage Converter (6.25mV/°C)
TC1047AVNBTR <small>EW</small>	SOT23A-6	High Precision Temp-to-Voltage Converter (10mV/°C)
TC1047VNBT <small>EW</small>	SOT23A-6	High Precision Temp-to-Voltage Converter (10mV/°C)

0.727	0.646	0.593	0.539
0.649	0.577	0.529	0.481
0.621	0.552	0.506	0.460

ADC, S/H, V/F

1-4 5-24 25-99 100+

LM331N	DIP8	VCO 1Hz to 100KHz, 0.01%lin
LF398N	DIP8	S/H, 0.002%, ±5-18V, <10usec acquisition time
ICL7106CPL	DIP40	ADC 3 1/2 LCD 333 mS
ICL7107CPL	DIP40	ADC 3 1/2 LED 333 mS

1.899	1.688	1.506	1.407
1.161	1.032	0.921	0.860
1.646	1.463	1.305	1.219
1.645	1.463	1.304	1.219

ADC, S/H, V/F

			1-4	5-24	25-99	100+
MAX542ACSD	NSO14	5V, 16-bit, serial input, voltage-output DAC	35.395	33.815	32.551	31.603
MAX632CSA	NSO8	1ppm/ $^{\circ}$ C, Low-Noise, +2.5V Voltage Reference	13.246	12.011	11.675	11.226
MAX194ACWE	WSO16	14-Bit, 85ksps ADC with 10µA Shutdown	30.386	29.030	27.944	27.131
TC510COG	WSO24	Precision A/D 17-bits, Single Power Supply	2.871	2.662	2.477	2.315
MCP3001-I/P	DIP8	10-bit ADC, SPI, single channel 200ksps@5V	1.650	1.523	1.307	1.269
MCP3001-I/SN	NSO8	10-bit ADC, SPI, single channel 200ksps@5V	1.650	1.523	1.307	1.269
MCP3002-I/SN	NSO8	10-bit ADC, SPI, dual channel 200ksps@5V	1.768	1.632	1.401	1.360
MCP3002-I/P	DIP8	10-bit ADC, SPI, dual channel 200ksps@5V	1.768	1.632	1.401	1.360
MCP3008-I/P	DIP16	10-bit ADC, SPI, 8-channel 200ksps@5V	2.174	2.006	1.722	1.672
MCP3008-I/SL	NSO16	10-bit ADC, SPI, 8-channel 200ksps@5V	2.174	2.006	1.722	1.672
MCP3201-BI/P	DIP8	12-bit ADC, SPI, 1ch 1LSB DNL, 1LSB INL 100ksps@5V	2.632	2.429	2.085	2.025
MCP3201-BI/SL	NSO8	12-bit ADC, SPI, 1ch 1LSB DNL, 1LSB INL 100ksps@5V	2.632	2.429	2.085	2.025
MCP3201-CI/SN	NSO8	12-bit ADC, SPI, 1ch 1LSB DNL, 2LSB INL 100ksps@5V	2.265	2.091	1.795	1.743
MCP3202-BI/P	DIP8	12-bit ADC, SPI, 2ch 1LSB DNL, 1LSB INL 100ksps@5V	2.868	2.647	2.272	2.206
MCP3204-BI/SL	NSO14	12-bit ADC, SPI, 4ch 1LSB DNL, 1LSB INL 100ksps@5V	3.915	3.614	3.102	3.012
MCP3208-BI/P	DIP16	12-bit ADC, SPI, 8ch 1LSB DNL, 1LSB INL 100ksps@5V	4.321	3.989	3.424	3.324
MCP3208-BI/SL	NSO16	12-bit ADC, SPI, 8ch 1LSB DNL, 1LSB INL 100ksps@5V	4.321	3.989	3.424	3.324
MCP3301-BI/P	DIP8	13-bit ADC, SPI, 1ch,diff, 1LSB DNL, 1LSB INL 100ksps@5V	2.580	2.381	2.044	1.984
MCP3301-BI/SL	NSO8	13-bit ADC, SPI, 1ch,diff, 1LSB DNL, 1LSB INL 100ksps@5V	2.580	2.381	2.044	1.984
MCP3301-CI/P	DIP8	13-bit ADC, SPI, 1ch,diff, 1LSB DNL, 2LSB INL 100ksps@5V	2.252	2.079	1.784	1.732
MCP3301-CI/SL	NSO8	13-bit ADC, SPI, 1ch,diff, 1LSB DNL, 2LSB INL 100ksps@5V	2.252	2.079	1.784	1.732
MCP3302-BI/P	DIP14	13-bit ADC, SPI, 2ch,diff, 1LSB DNL, 1LSB INL 100ksps@5V	3.889	3.590	3.081	2.992
MCP3302-BI/SL	NSO14	13-bit ADC, SPI, 2ch,diff, 1LSB DNL, 1LSB INL 100ksps@5V	3.889	3.590	3.081	2.992
MCP3302-CI/P	DIP14	13-bit ADC, SPI, 2ch,diff, 1LSB DNL, 2LSB INL 100ksps@5V	3.103	2.865	2.459	2.387
MCP3302-CI/SL	NSO14	13-bit ADC, SPI, 2ch,diff, 1LSB DNL, 2LSB INL 100ksps@5V	3.103	2.865	2.459	2.387
MCP3304-BI/P	DIP16	13-bit ADC, SPI, 4ch,diff, 1LSB DNL, 1LSB INL 100ksps@5V	4.295	3.965	3.403	3.304
MCP3304-BI/SL	NSO16	13-bit ADC, SPI, 4ch,diff, 1LSB DNL, 1LSB INL 100ksps@5V	3.431	3.167	2.718	2.639
MCP3304-CI/P	DIP16	13-bit ADC, SPI, 4ch,diff, 1LSB DNL, 2LSB INL 100ksps@5V	3.431	3.167	2.718	2.639
MCP3304-CI/SL	NSO16	13-bit ADC, SPI, 4ch,diff, 1LSB DNL, 2LSB INL 100ksps@5V				

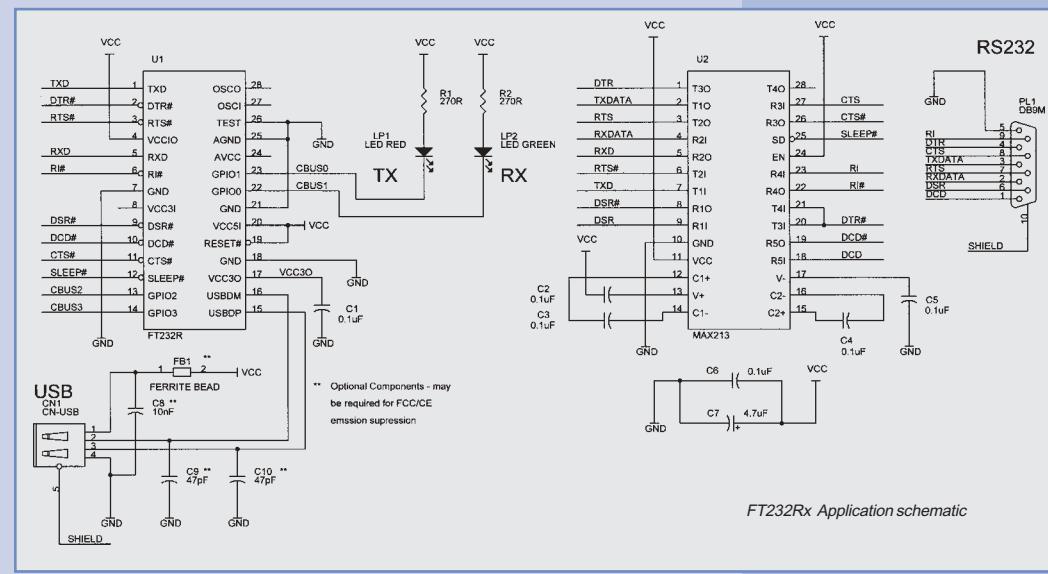
DNL-Differential Nonlinearity, INL-Integral Nonlinearity

DAC

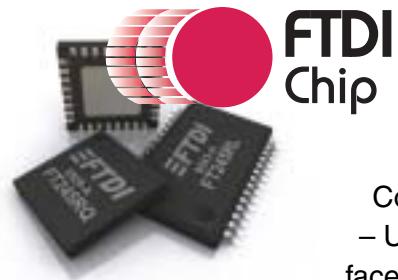
			1-4	5-24	25-99	100+
MAX5123AESEE	QSO16	3V, 12-bit Serial Force/Sense DAC 10ppm/ $^{\circ}$ C	9.596	8.702	8.458	8.132
MAX518BCPA	DIP8	5V,Dual, 2-wire serial, 8-bit DAC, R2R output	4.213	3.820	3.713	3.570
MAX521BCWG	WSO24	Octal, 2-Wire Serial 8-Bit DAC with R2R output	10.005	9.073	8.818	8.479
MAX548AEPA	DIP8	Dual,Serial, 8-bit voltage-output DAC +2.5V to +5.5V	4.213	3.820	3.713	3.570
TC1320EOA	SO8	8-Bit DAC Converter with 2-Wire Interface	1.525	1.384	1.243	1.173
TC1321EOA	SO8	10-Bit DAC Converter with 2-Wire Interface	1.961	1.780	1.599	1.508

Interface ICs

			1-4	5-24	25-99	100+
FT232BL/BM SMD	LQFP32	USB-UART transceiver (RS232, RS485, RS422)	4.685	3.964	3.784	3.604
FT232BQ SMD	QFN32	USB-UART transceiver (RS232, RS485, RS422)	5.836	4.938	4.713	4.489
FT232RL SMD ^{NEW}	SSOP28	USB-UART Transceiver with integrated EEPROM and oscillator	3.990	3.449	3.221	2.850
FT2322CL/L SMD	LQFP48	USB-2UART transceiver (RS232, RS485, RS422)	7.299	6.176	5.895	5.615
FT245BL/BM SMD	LQFP32	USB-PARALLEL PORT transceiver	4.616	3.906	3.728	3.551
FT245BQ SMD	QFN32	USB-PARALLEL PORT transceiver	5.836	4.938	4.713	4.489
FT8U100AX SMD	QFP100	USB-Hub controller	6.968	5.896	5.628	5.360



FT232Rx Application schematic



USB interface integrated circuits

Comet Electronics offers integrated circuits from **FTDI**

– USB to serial interface device , USB to parallel interface device. There is no need to be USB "guru" - needed software drivers for most popular OS can be download for free.

Order code	Description	Package
FT232BL/BM SMD	USB-UART transceiver (RS232, RS485, RS422)	LQFP32
FT232BQ SMD	USB-UART transceiver (RS232, RS485, RS422)	QFN32
FT232RL SMD	USB-UART Transceiver with integrated EEPROM	SSOP28
FT232RQ SMD	and oscillator	QFN32
FT2232C/L SMD	USB-2UART transceiver (RS232, RS485, RS422)	LQFP48
FT245RL SMD	USB- PARALLEL PORT Transceiver with integrated EEPROM and oscillator	SSOP28
FT245RQ SMD		QFN32
FT245BL/BM SMD	USB-PARALLEL PORT transceiver	LQFP32
FT245BQ SMD	USB-PARALLEL PORT transceiver	QFN32
FT8U100AX SMD	USB-Hub controller	PQFP100

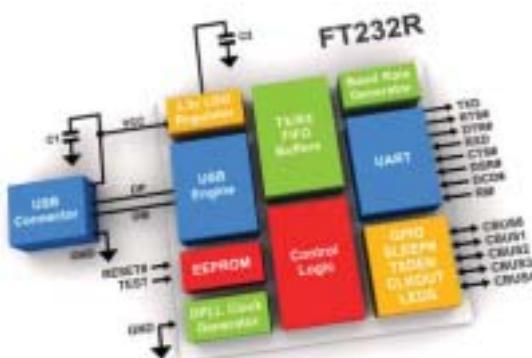
Above described devices are state machine based, not microcontroller based. They require no programming and no firmware. Moreover, you can power your device from USB – there is no more need of external power supply.

FT232RL SMD - USB-UART Transceiver with integrated EEPROM and oscillator



- ◆ Single chip USB-to-Serial interface;
- ◆ Fully integrated USB protocol;
- ◆ On-chip 1024 bit EEPROM;Integrated oscillator 12MHz;
- ◆ Unique identification number for every chip - **FTDChip-ID™**;
- ◆ VCP & D2XX drivers for all popular OS from FTDI;
- ◆ Synchronous and asynchronous „Bit bang” modes;
- ◆ Compact lead free SSOP28 and QFN32 packages.

Parameters	
Power supply, VCCIO	1.8 - 5.25 V
Power supply , VCC	3.3 - 5.25V
Operating temperature	-40 - 85 °C
Power consumption	15 mA
EEPROM	1024 bit
Read/write cycles	100 000
Data retention	15 Years
Oscillator frequency	12 MHz
Maximum power dissipation	500 mW



Interface ICs

			1-4	5-24	25-99	100+
AM26LS31	DIP16	Quad RS422 transmitter	0.422	0.383	0.326	0.302
AM26LS32	DIP16	Quad RS422 receiver	0.384	0.348	0.296	0.274
AM26LS32 SMD	SO16	Quad RS422 receiver	0.378	0.343	0.292	0.270
MC1488P(SN75188)	DIP14	Quad RS232 transmitter	0.242	0.220	0.187	0.173
MC1488D(SN75188D)	SO14	Quad RS232 transmitter	0.225	0.204	0.173	0.160
MC1489P(SN75189)	DIP14	Quad RS232 receiver	0.242	0.220	0.187	0.173
MC1489AD(SN75189AD)	SO14	Quad RS232 receiver	0.242	0.220	0.187	0.173
MAX232N	DIP16	RS232, 5V, 2 Tx, 2 Rx, 200kbps	0.519	0.471	0.400	0.371
MAX232D SMD	SO16	RS232, 5V, 2 Tx, 2 Rx, 200kbps	0.462	0.419	0.357	0.330
MAX232DW SMD	WSO16	RS232, 5V, 2 Tx, 2 Rx, 200kbps	0.466	0.422	0.359	0.333
MAX233CPP	DIP20	RS232, 5V, 2 Tx, 2 Rx, 120kbps, internal cap.	5.470	5.073	4.720	4.411
MAX236CNG	DIP24	RS232, 5V, 4 Tx, 3 Rx, 120kbps, shutdown	5.556	5.153	4.794	4.481
MAX3232CPE	DIP16	RS232, 3-5.5V, 2 Tx, 2 Rx, 120kbps	3.079	2.856	2.657	2.483
MAX3223CPB	DIP20	RS232, 3-5.5V, 2 Tx, 2 Rx, 120kbps, shutdown	3.079	2.856	2.657	2.483
MAX3222CWN	WSO18	RS232, 3-5.5V, 2 Tx, 2 Rx, 120kbps, shutdown	3.079	2.856	2.657	2.483
MAX202EEUE	TSS16	RS232, 5V, 2Tx, 2Rx, 120kbps, ESD-protected	3.654	3.388	3.153	2.946
MAX3085CPA	DIP8	RS485/RS422, 5V, 1Tx, 1Rx, half-duplex, 500kbps	2.205	2.045	1.902	1.778
MAX3160CAP	SSOP20	RS232, 2Tx/2Rx, RS485/RS422, 1Tx/1Rx, 3-5.5V, 1Mbps	9.928	9.207	8.567	8.006
MAX3160EAP	SSOP20	RS232, 2Tx/2Rx, RS485/RS422, 1Tx/1Rx, 3-5.5V, 1Mbps	14.169	13.141	12.226	11.427
MAX3237CAI	SSOP28	RS232, 3-5.5V, 5 Tx, 3 Rx, 1000kbps	5.526	5.125	4.769	4.457
MAX3241CWI	SO28	RS232, 3-5.5V, 3 Tx, 5 Rx, 120kbps, micropower	5.534	5.133	4.776	4.463
MAX491CPD	DIP14	RS485/RS422, 5V, 1Tx, 1Rx, full-duplex, 2500kbps	2.072	1.921	1.788	1.671
ST232CN	DIP16	RS232 receiv/transmitter 5V; C=0.1uF	0.761	0.676	0.603	0.563
ST232CD SMD	SO16	SO-16 RS232 driver/receiver; C=0.1uF	0.468	0.416	0.371	0.347
75176	DIP8	RS485/RS422 receiv/transmitter	0.304	0.270	0.241	0.225
75176 SMD	SO8	SO-8 RS485/RS422 bidirectional transceiver	0.290	0.258	0.230	0.215
MAX485CSA	SO8	RS485/RS422, 5V, 1Tx, 1Rx, half-duplex, 2500kbps	1.919	1.706	1.521	1.422
SP485EN	SO8	RS485/RS422, 5V, 1Tx, 1Rx, half-duplex, 5Mbps	1.019	0.906	0.808	0.755
SP485CS	DIP8	RS485/RS422, 5V, 1Tx, 1Rx, half-duplex, 5Mbps	1.215	1.080	0.963	0.900
MCS7780CS	SSOP28	USB1.1 to IRDA	7.511	6.356	6.067	5.778
MCS7703CS	SSOP28	USB1.1 to UART	4.037	3.416	3.260	3.105
MCS7720CQ	QFP48	USB1.1 to 2xUART	5.616	4.752	4.536	4.320

CAN Controllers Microchip

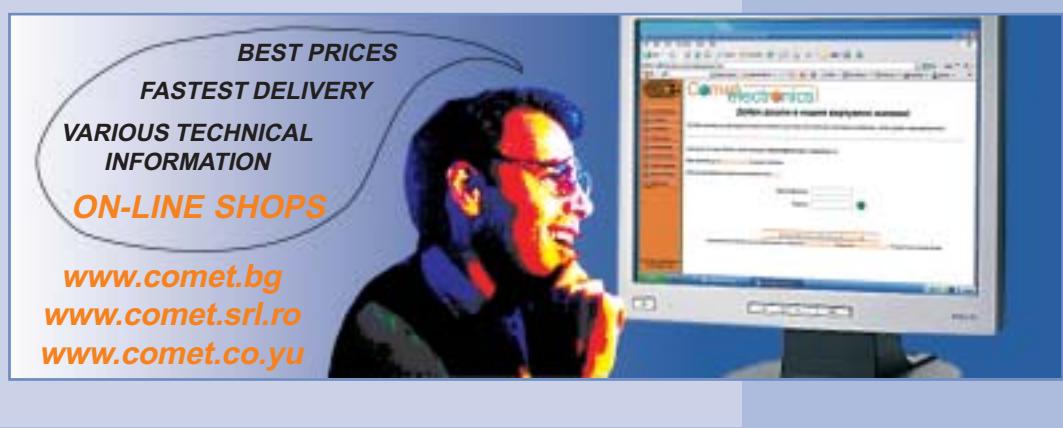
			1-4	5-24	25-99	100+
MCP2510-I/P	DIP18	CAN V2.0A and V2.0B Controller with SPI interface, 1 Mb/s	2.959	2.651	2.438	2.367
MCP2551-I/P	DIP8	High Speed CAN Transceiver 1 Mb/s	1.045	0.936	0.861	0.836
MCP2551-I/SN	NS08	High Speed CAN Transceiver 1 Mb/s	1.045	0.936	0.861	0.836
MCP25020-I/P	NEW	Digital CAN I/O Expander	2.430	2.178	2.003	1.944
MCP2515-I/P	DIP18	1 Mb/s CAN controller with SPI interface	2.153	1.929	1.774	1.723
MCP2515-I/SN	NEW	1 Mb/s CAN controller with SPI interface	2.153	1.929	1.774	1.723

ETHERNET controllers Microchip

			1-4	5-24	25-99	100+
ENC28J60/SO	NEW	8KB RAM, MAC&PHY, Ethernet Controller	4.508	3.895	3.715	3.606
ENC28J60/SP	NEW	8KB RAM, MAC&PHY, Ethernet Controller	4.760	4.113	3.922	3.808
ENC28J60/M/L	NEW	8KB RAM, MAC&PHY, Ethernet Controller	4.911	4.243	4.047	3.929
ENC28J60/SS	NEW	8KB RAM, MAC&PHY, Ethernet Controller	4.458	3.851	3.673	3.566

I/O expanders Microchip

			1-4	5-24	25-99	100+
MCP23016-I/SP	DIP28	16-bit Input/Output Port Expander	1.511	1.354	1.245	1.209
MCP23S08-E/SS	SSOP18	8-bit Input/Output Expander, SPI interface & I2C	1.096	0.982	0.903	0.876



Analog products



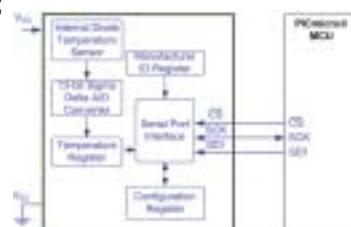
MICROCHIP

Temperature sensors

Device	Description
Voltage output	
TC1046 TC1047/47A MCP9700/01	High-precision temperature-to-voltage converter, 6.25mV/°C High-precision temperature-to-voltage converter, 10mV/°C Linear Active thermistors, low-cost (high performance "A" version)
Logic output	
TC6501/2/3/4 TC620/21 TC622/24 TC623	Ultra small temperature switches with pin-selectable hysteresis 5V Dual trip-point temperature switches Single trip-point temperature switches, low cost 3V Dual trip-point temperature switches
Serial output	
TC72 TC74 TC77 TCN75A MCP9800/1/2/3 MCP9805 MCP98242	High-accuracy 10-bit Digital thermal sensor, 4-wire SPI interface Digital thermal sensor, SMBus interface, SOT23 package High-accuracy 13-bit Digital thermal sensor, 3-wire SPI interface Digital thermal sensor, serial interface and temperature switch High-accuracy 12-bit Digital thermal sensor with 2-wire interface High-accuracy 10-bit Digital thermal sensor with 2-wire interface and programmable temperature switch High-accuracy Digital thermal sensor with 2-wire interface and programmable temperature switch

TC77 - High-accuracy 13-bit Digital thermal sensor with 3-wire SPI interface

- ♦ Digital thermal sensor in small 5-pin SOT32A or 8SOIC package;
- ♦ Outputs Temperature as a 13-Bit Digital Word;
- ♦ Standard SPI Serial interface;
- ♦ ±1°C (max.) accuracy from +25°C to +65°C
- ♦ ±2°C (max.) accuracy from -40°C to +85°C
- ♦ ±3°C (max.) accuracy from -55°C to +125°C
- ♦ Power supply 2.7 – 5.5 V;
- ♦ Low power consumption 250 µA typ.



Linear ICs

Standard operational amplifiers

Programmable gain amplifiers

Single, dual and quad channel OA with excellent performance and single supply operation. Series **MCP7382x**, SPI interface.

MCP7383x, **MCP7384x**, **MCP7385x**, **MCP7386x**.

Series **MCP6S21/2/6/8**, **MCP6S91/2/3**.

Comparators

Microchip offers a variety of comparators with low power supply voltage and power consumption. Series **MCP654x**, voltage reference in single package. Series **TC1026/TC1027**, **TC1037/8/9**, **TC1041**.

Integrated devices

Combination of operational amplifier, comparator and 1026C, **TC1043/1043C**.

Mixed signal ICs

- ♦ 22 – bit Delta-Sigma ADC - Series **MCP3550-50/60**, **MCP3551/3**;
- ♦ 10/12/13 – bit SAR ADC - Series **MCP3001/2/4/8**, **MCP3201/2/4/8**, **MCP3021**, **MCP3221**, **MCP3301/2/4**; (Binary);
- ♦ LCD ADC-**TC835**,**TC7135**,**TC14433/A**,**TC850**;
- ♦ LED Display ADC - **TC7107/A**,**TC7117/A**,**TC820**;
- ♦ 12/16/17 – bit Dual Slope ADC - Series **TC500/A**, **TC510/4**, **TC520A**, **TC530/4**, **TC7109/A**;
- ♦ BCD ADC - **TC835**, **TC7135**, **TC14433/A**, **TC850**
- ♦ System DAC - Digital to analog converters, series **MCP492/2**, **MCP4821/2**, **TC1320/1**.

MOSFET drivers

MOSFET drivers with supply voltage up to 30V and peak output current up to 12A. Series **TC1410/1/2/3N**, **TC1426/7/8/9/B**, **7/8**, **TC4467/8/9**, **TC426/7/8**, **TC4403/4/5**, **TC442x**, **TC451/2**, **TC4626/7**, **TC4431/2**.

PWM controllers for BLDC

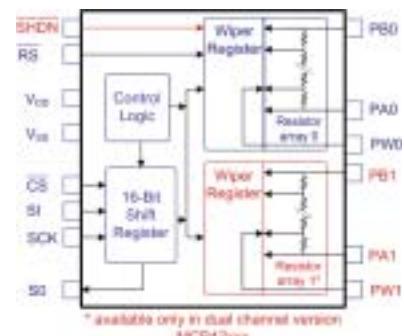
Easy to use integrated PWM controllers for BLDC motors with motor fault control. Series **TC642/6/7/8/9/B**, **7/8**, **TC4467/8/9**, **TC426/7/8**, **TC4403/4/5**, **TC442x**, **TC650/1/2/3/4/5**, **TC664/5**.

Digital potentiometers

Integrated circuits acting like variable resistance with digital control. Series **MCP401/2/3/4**, **MCP4021/2/3/4**. MCP41xxx – Single channel, MCP42xxx – Dual channel.

MCP41xxx/42xxx- Digital potentiometers

- ◆ Nominal resistance 10, 50, 100 kohm;
 - ◆ 256 taps for each potentiometer;
 - ◆ Single channel MCP41xxx;
 - ◆ Dual channel MCP42xxx;
 - ◆ Standard SPI interface;
 - ◆ Power supply 2.7-5.5V;
 - ◆ Low power consumption;
 - ◆ Standard PDIP, SOIC, TSSOP packages.



Power ICs

LDO (Low Drop Out) linear voltage regulators

- ◆ LDOs with output current up to 250 mA
Series **TC10xx**, **TC122x**, **TC20xx**, **TC118x**, **TC218x**,
TC56, **MCP1700**, **MCP1701A** – CMOS LDO with low quiescent current (MCP1700 - 1.6 A / MCP1701A - 2.0 A).
 - ◆ LDOs with output current from 300 mA up to 500 mA
Series **TC110x**, **TC117x**, **TC126x**, **TC2117**.

♦ LDO with output current above 1 A
MCP1726 – output current 1.0 A, **MCP1727** – output current 1.5 A

- ◆ Power management Combo ICs

Series **TC130x** - LDOs with RESET output;
TC1303 – Double linear and switching reg.

DC-DC Charge pumps

- ◆ Inverters and doublers, $V_{out} = -V_{in}$ or $V_{out} = +2V_{in}$
 - Series **TC766x**, **TCM828/29**, **TC12xx**, **TC1044S**, **TC962**, **TC1121**.
 - ◆ **TC682** – Inverter/doubler, $V_{out} = -2V_{in}$.
 - ◆ Regulated positive converters - Series **MCP1252/53**, **MCP1256/57/58/59**

Switching voltage regulators

- ◆ Buck (step down) voltage regulators and controllers.
MCP1601, TC105, TC120, MCP1612.
 - ◆ Boost (step up) voltage regulators and controllers -
Series **MCP165x, TC110/115, TC125/126**

System supervisors

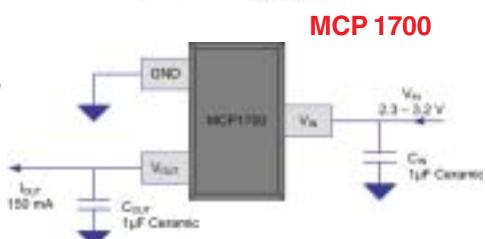
- ◆ Power supply monitors with RESET generator for 3.3V and 5V. Series **MCP1xx**, **TC127x**, **TCM809/10/11/12**, **MCP809/10**.
 - ◆ Power supply monitors with RESET generator, Watch-dog timer and manual RESET - series **MCP13xx**, **TC32M**, **TC1232**.

Voltage reference

Voltage reference with extremely small temperature drift. MCP1525 - $V_{out} = 2.5V$, MCP1541 - $V_{out} = 4.096V$.

Battery chargers

Battery chargers
Integrated battery charge controllers for Li-Ion and Li-Polymer batteries - Series **MCP738x**



- ◆ 1.6 μ A quiescent current;
 - ◆ Input voltage 2.3 – 6.0 V;
 - ◆ Output voltage 1.2 – 5.0 V;
 - ◆ Output current 250 mA ($V_{\text{OUT}} \geq 2.5V$)
 - ◆ Output current 200 mA ($V_{\text{OUT}} < 2.5V$)
 - ◆ Stable with 1 μ F ceramic capacitor;
 - ◆ Short-circuit protection;
 - ◆ Overtemperature protection.

MCP 1252



- ◆ 80 μ A quiescent current;
 - ◆ No need of inductors;
 - ◆ Output current 120 mA;
 - ◆ Input voltage 2.0 – 5.5 V;
 - ◆ Output voltage 3.3, 5.5V or adjustable;
 - ◆ Short-circuit protection;
 - ◆ Overtemperature protection.

Digital Potentiometers Microchip

			1-4	5-24	25-99	100-499	500+
MCP41010-I/SN	NS08	Digital Pot, 256 steps, SPI, 10kohms, single ch	1.295	1.160	1.119	1.036	
MCP41010-I/P	DIP8	Digital Pot, 256 steps, SPI, 10kohms, single ch	1.295	1.160	1.119	1.036	
MCP41100-I/P	DIP8	Digital Pot, 256 steps, SPI, 100kohms, single ch	1.295	1.160	1.119	1.036	
MCP41100-I/JSN	NS08	Digital Pot, 256 steps, SPI, 100kohms, single ch	1.295	1.160	1.119	1.036	
MCP42010-I/P	DIP14	Digital Pot, 256 steps, SPI, 10kohms, dual ch	1.929	1.729	1.667	1.543	
MCP42010-I/SL	NS08	Digital Pot, 256 steps, SPI, 10kohms, dual ch	1.929	1.729	1.667	1.543	
MCP42050-I/SL	NS08	Digital Pot, 256 steps, SPI, 50kohms, dual ch	1.929	1.729	1.667	1.543	
MCP42100-I/SL	NS08	Digital Pot, 256 steps, SPI, 100kohms, dual ch	1.929	1.729	1.667	1.543	
MCP42100-I/P	DIP14	Digital Pot, 256 steps, SPI, 100kohms, dual ch	1.929	1.729	1.667	1.543	

Driver ICs

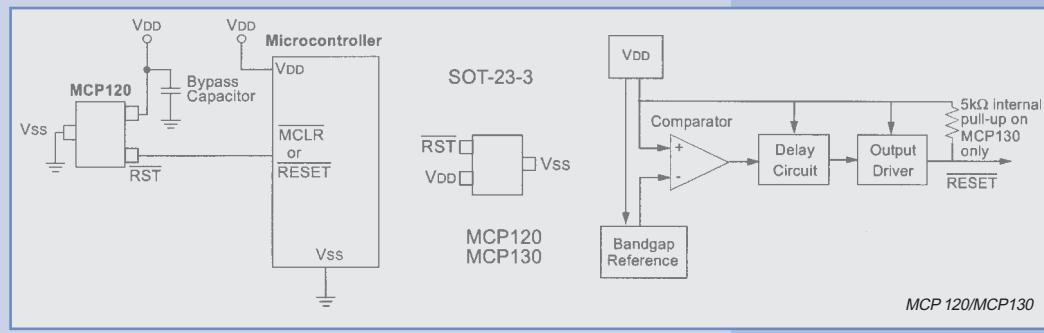
			1-4	5-24	25-99	100-499	500+
AY0438-I/P	DIP40	LCD DRIVER up to 32 segments	3.612	3.350	3.117	2.913	
AY0438/L	PLCC44	LCD DRIVER up to 32 segments	4.706	4.364	4.060	3.795	
HT1621B	SS48	LCD Controller 4x32 segments	0.795	0.681	0.636	0.568	
MAX7219CNG	DIP24	Serial 8-digit 7-segment LED display driver	7.981	7.402	6.887	6.437	
ULN2003	DIP16	7 channel Darlington driver 0.5A/50V 2.4V	0.233	0.200	0.181	0.162	0.150
ULN2003AD SMD	SO16	7 channel Darlington driver 0.5A/50V 2.4V	0.241	0.207	0.187	0.168	0.156
ULN2004	DIP16	7 channel Darlington driver 0.5A/50V 5V	0.206	0.206	0.176	0.169	0.147
ULN2004AD SMD	SO16	7 channel Darlington driver 0.5A/50V 5V	0.233	0.200	0.180	0.162	0.150
ULN2803	DIP18	8dr.0.5A/50V Uin 2.4V	0.441	0.368	0.344	0.304	
ULN2803AFW SMD	SO18	8 channel Darlington driver 0.5A 2.4V	0.430	0.359	0.335	0.296	
ULN2804	DIP18	8 dr.0.5A/50V Uin 5V	0.434	0.362	0.338	0.299	
ULN2804AFW SMD	SO18	8 channel Darlington driver 0.5A 5V	0.446	0.373	0.348	0.308	
L293B	DIP16	4 drivers 1A 36V	3.426	3.177	2.956	2.763	
BA6287F ROHM	SO8	Reversible DC motor driver for one motor	0.588	0.504	0.470	0.420	
BA6845FS ROHM	SSOP16	Stepping motor driver 12V 1A	0.952	0.816	0.762	0.680	
BA7604N ROHM 7545Z	SIP10	Video/audio signal switch	0.960	0.823	0.768	0.685	
	DIP8	Dual NAND input 20V/0.3A	0.364	0.303	0.283	0.251	

MOSFET drivers

			1-4	5-24	25-99	100+
IR2110	DIP14	MOSFET/IGBT high&low side Driver,600V	1.886	1.749	1.627	1.521
TC4420EOA	SO8	6A Single MOSFET Driver,non inv	0.921	0.854	0.795	0.743
TC4420EPA	DIP8	6A Signal MOSFET Driver	0.938	0.870	0.810	0.757
TC4420CPA	DIP8	6A Single MOSFET Driver,non inv	0.921	0.854	0.795	0.743
TC4421CAT	TO220-5	9A Single MOSFET Driver,inv	2.252	2.089	1.943	1.816
TC4422AVOA	SO8	9A Single MOSFET Driver,non inv	2.044	1.896	1.764	1.649
TC4422CAT	TO220-5	9A Single MOSFET Driver,non inv	2.287	2.121	1.973	1.844
TC4422CPA	DIP8	9A Single MOSFET Driver,non inv	1.819	1.687	1.570	1.467
TC4422EMF	DFN-8	9A Single MOSFET Driver,non inv	2.148	1.992	1.854	1.732
TC4424EPA	DIP8	3A Dual MOSFET Driver,non inv	1.594	1.478	1.375	1.285
TC4426CPA	DIP8	1.5A Dual MOSFET Drvr,Voltage tripler,inv	0.720	0.667	0.621	0.580
TC4427EOA	SO8	1.5A Dual MOSFET Drvr,Voltage tripler,non inv	0.703	0.652	0.606	0.567
TC4428ACOA	SO8	1.5A Dual MOSFET Drvr,Voltage tripler,inv & non inv	0.706	0.654	0.609	0.569
TC4468CPD	DIP14	1.2A Quad MOSFET Drvr, AND I/P	1.642	1.523	1.417	1.325

RESET, Supervisor ICs

			1-4	5-24	25-99	100+	500+
MCP120-450I/SN	SO8	Active low, Open drain, 4.5V	0.380	0.338	0.301	0.281	
MCP120-450DI/TO	TO92	Active low, Open drain, 4.5V	0.323	0.287	0.256	0.239	
MCP120T-475I/TT	SOT23	Active low, Open drain, 4.75V	0.323	0.287	0.256	0.239	
MCP130T-300/TT	SOT23	Active low, Open drain 2.93V (int. pull-up 5k)	0.323	0.287	0.256	0.239	
TC1232CPA	DIP8	Active low/high Open drain,WDT,4.5V or 4.75V	0.973	0.865	0.771	0.721	
TC1275-10ENBTR	SOT23	Active low CMOS Push Pull 2.91V	0.493	0.439	0.391	0.365	
ZM33064C	TO92	Active low, Open drain 4.6V	0.564	0.512	0.486	0.460	0.434
ZM33064G SMD	SOT23	Active low , Open drain 4.6V SMD	0.599	0.543	0.516	0.488	0.460
ZM33164C	TO92	Active low, Open drain 4.3V	0.576	0.523	0.497	0.470	0.443
ZXCM210LF OBSOLETE	SOT23	Active high, Low power, 4.63V	0.498	0.452	0.429	0.406	0.383
MAX690CPA	DIP8	Active low, Push-pull 4.65V,Battery control,WDT	5.534	5.023	4.512	4.257	
MAX691CPE	DIP16	Active low and high, Push-pull 4.65V,Battery control,WDT	2.827	2.566	2.305	2.175	
SP691ACP	DIP16	Low power microprocessor supervisory with battery switch-over	1.567	1.422	1.278	1.205	



MCP 120/MCP130

RESET, Supervisor ICs

			1-4	5-24	25-99	100+	500+
TL7705ACP LM809M3-4.38	DIP8 SOT23	Active low and high, Adj. duration, 4.55V 3-Pin Microprocessor Reset Circuits	0.317 0.353	0.282 0.314	0.251 0.280	0.235 0.262	
MC34064-5 MC34064D-5	TO92 SO8	Active low, Open Collector, 4.61V Active low, Open Collector, 4.61V	0.385 0.346	0.342 0.307	0.305 0.274	0.285 0.256	
ADM705AN ADM705AR SMD	DIP8 SO8	Active low, WDT, Manual input, 4.65V Active low, WDT, Manual input, 4.65V	1.065 1.010	0.987 0.936	0.919 0.871	0.859 0.814	
DS1232LPS-2 DS1233-5 DS1312S-2 DS1312 DS1321S DS1833-5 DS1834AS	SO8 TO92 SO8 DIP8 SO16 TO92 SO8	Act. low, Open drain; Act. high, Push-pull 4.62V Active low, 4.62V NV Controller & battery monitor NV Controller & battery monitor NV controller flex&batt. monitor for SRAM Active high, Push-pull 4.625V Act. low, Open drain, Dual 2.55/4.63V, pushbutton	1.698 1.041 9.089 9.089 7.577 1.343 1.813	1.575 0.965 8.429 8.429 7.027 1.246 1.682	1.465 0.898 7.843 7.843 6.538 1.159 1.565	1.370 0.839 7.330 7.330 6.110 1.083 1.462	
BD5227G ROHM SMD NEW BD5237G ROHM SMD NEW BD5242G ROHM SMD NEW BD5342G ROHM SMD NEW BD5245G ROHM SMD NEW BD5345G ROHM SMD NEW	SSOP5 SSOP5 SSOP5 SSOP5 SSOP5 SSOP5	Active Low, Open Drain, 2.7V±1%, Adj. duration, -40+105°C Active Low, CMOS, 2.7V±1%, Adj. duration, -40+105°C Active Low, Open Drain, 4.2V±1%, Adj. duration, -40+105°C Active Low, CMOS, 4.2V±1%, Adj. duration, -40+105°C Active Low, Open Drain, 4.5V±1%, Adj. duration, -40+105°C Active Low, CMOS, 4.5V±1%, Adj. duration, -40+105°C	0.126 0.126 0.126 0.126 0.126 0.126	0.115 0.115 0.115 0.115 0.115 0.115	0.101 0.101 0.101 0.101 0.101 0.101	0.093 0.093 0.093 0.093 0.093 0.093	

GSM modules Sony Ericsson and components

		1+		
GSM GR64/10 NEW GSM GR64/20 NEW GSM GR64/30 NEW GSM GR64/40 NEW	60-pin Quad Band GSM, Standart Version 60-pin Quad Band GSM, Vref Input, USB, SIM Holder 60-pin Quad Band GSM, Standart Version, M2M 60-pin Quad Band GSM, Vref Input, USB, SIM Holder, M2M	📞 📞 📞 📞		
GSM GS64/10 NEW GSM GS64/20 NEW GSM GS64/40 NEW GSM GS64/50 NEW	100-pin Quad Band GSM, Standart Version, USB 100-pin Quad Band GSM, USB, M2M 100-pin Quad Band GSM, USB, SIM Holder 100-pin Quad Band GSM, USB, SIM Holder, M2M	📞 📞 📞 📞		
		1-24 25-99 100+		
GSM SIMH 1 GSM SIMH 2 GSM FLAT ANTENNA 1 GSM FLAT ANTENNA 2 GSM GR64 ANT CABLE 1 GSM GR64 ANT CABLE 2 GSM GR64 SMD CON GSM MG5F	SIM card holder with SIMCARD PRESENCE SIM card holder without SIMCARD PRESENCE GR64 antenna, flat, SMA 1dB GR64 antenna, flat, SMA 3dB GR64 antenna cable MMCX->SMA, RG174, 150mm GR64 antenna cable MMCX->SMA, RG174, 70mm GR64 60-pin SMD Female header, 1.27mm Pitch GSM GM29/GT47 Antenna, magnetic, 5dB, FME	1.73 0.65 6.37 6.37 5.44 5.31 2.61 9.75	1.44 0.54 6.37 6.37 9.1579 90.592 2.18 8.12	1.33 0.50 59.028 63.048 159.357 84.795 83.882 2.00 7.47

Receivers and components for Global Positioning System (GPS)

		1-4	5-24	25-99	100+
GPS LEA-LA GPS LEA-4A NEW GPS LEA-4P NEW GPS LEA-4H NEW GPS LEA-4T NEW GPS RCB-LJ GPS SAM-LS GPS SBR-LS GPS TIM-4A NEW GPS TIM-4P NEW GPS TIM-4H GPS TIM-LA NEW GPS TIM-LC GPS TIM-LF GPS TIM-LH GPS TIM-LL GPS TIM-LP GPS TIM-LR	Low cost GPS receiver module, 17x25mm, with LNA Low cost GPS receiver, 17x22.4mm, 34mA, USB Programmable GPS receiver, 17x22.4mm, 35mA, USB SuperSense indoor GPS receiver, 17x22.4mm, 38mA, USB Programmable GPS receiver with precision timing, 17x22.4mm, 35mA GPS receiver board, 41x71mm, programmable GPS smart antenna module, 32x47mm Sensor-based GPS receiver board, 41x71mm, dead reckoning Low cost GPS receiver, 25.4x25.4mm, 34mA Programmable GPS receiver, 25.4x25.4mm, 35mA SuperSense indoor GPS receiver, 25.4x25.4mm, 38mA Low cost GPS receiver module, 25x25mm, LNA Low cost GPS receiver module, 25x25mm, no LNA, FLASH GPS receiver module, 25x25mm, no LNA, FLASH GPS receiver module, weak signal tracking, 25x25mm, LNA, FLASH GPS receiver module, 25x25mm, LNA, FLASH GPS receiver module, 25x25mm, LNA, not recommended for new projects GPS receiver module, dead reckoning, 25x25mm, LNA, FLASH	61.692 53.611 66.111 70.614 178.480 94.971 93.947 127.310 57.355 68.567 73.480 63.663 61.692 72.251 81.667 74.298 89.444 87.807	59.488 51.696 63.750 68.092 172.105 91.579 90.592 122.763 55.307 66.118 70.855 61.389 59.488 69.671 78.750 71.645 86.250 84.671	55.082 47.867 59.028 63.048 159.357 84.795 83.882 113.670 51.210 61.221 65.607 56.842 55.082 64.510 72.917 66.338 79.861 78.399	
GPS ANN-1 MCX GPS ANN-1 SMA GPS ANN-2 MCX GPS ANN-3 MCX	GPS antenna 2.7-6V, 8.5mA, 27dB, 5m RG174 cable GPS antenna 2.7-6V, 8.5mA, 27dB, 5m RG174 cable GPS antenna 3-5V, 22mA, 27dB, 5m RG174 cable GPS antenna 3-5V, 22mA, 27dB, 5m RG174 cab.low cost	14.073 13.490 15.431 13.490	13.098 12.556 14.363 12.556	12.232 11.726 13.413 11.726	10.825 10.377 11.870 10.377

Bluetooth модули

		1-4	5-24	25+
PROMI-ESD-01 PROMI-ESD-02 PROMI-MSP-02	Bluetooth Class1 UART module Bluetooth Class2 UART module Wireless Bluetooth based server	57.25 46.93 368.72	55.21 45.25	51.12 41.90
Parani-ESD100 NEW Parani-ESD110 NEW Parani-ESD200 NEW Parani-ESD210 NEW	Bluetooth Class1 UART module, 100m, chip antenna Bluetooth Class1 UART module, 100m, external ant. Bluetooth Class2 UART module, 30m, chip antenna Bluetooth Class2 UART module, 30m, external ant.	54.44 65.70 54.44 65.70	52.49 63.35 52.49 63.35	48.60 58.66 48.60 58.66

Sony Ericsson

Wireless M2M Communications



GSM Radio Devices

A radio with many integrated features, low cost, powerful and compact, easy and flexible interfacing, simple device management through standard AT commands, it enables wireless communications via the public GSM network.

Parameters	GM47(GM48)**	GR47(GR48)**	GR64	GS64***
Frequency range, MHz/ RF Power, dBm	900/33-1800/30 (850/33-1900/30)	900/33-1800/30 (850/33-1900/30)	850/900/331800/ 1900/30	850/900/331800/ 1900/30
Power Supply, VDC	3.4 – 4	3.4 – 4	3.2 - 4.5	3.2 - 4.5
Operating Temperature, °C	-30 to +75	-30 to +75	-30 to +75	-30 to +75
Dimensions, mm	50x33x7.2	50x33x7.2	50x33x3.2	37x30x3.2
Embedded applications	-	Yes	Optional	Optional
Interface connector	60 pin	60 pin	60 pin	100 pin
Antenna connector	MMCX	MMCX	MMCX	MHF
Data interfaces	RS232*, 2xUART	RS232*, 2xUART	SPI, USB, 2xUART	SPI, USB, 2xUART
General purpose I/Os	Yes	Yes	Yes	Yes
SIM interface	3/5 V	3/5 V	1.8/3 V	1.8/3 V
ADCs	5	5	4	4
DACs	1	1	-	-
Mic & Speaker interface	Yes	Yes	Yes	Yes
Buzzer output	1	1	1	1
Keypad matrix interface	-	5x4	4x4	5x4
Telephony	Yes	Yes	Yes	Yes
Emergency call	Yes	Yes	Yes	Yes
Voice coding	FR/EFR/HR	FR/EFR/HR	FR/EFR/AMR	FR/EFR/AMR
DTMF function	Yes	Yes	Yes	Yes
SMS Text and PDU	Yes	Yes	Yes	Yes
SMS Cell broadcast	Yes	Yes	Yes	Yes
CSD/HSCSD	9.6/19.2 kbps	9.6/19.2 kbps	9.6/- kbps	9.6/- kbps
GPRS	Yes	Yes	Yes	Yes
GSM Multiplexing Protocol	Yes	Yes	Yes	Yes
GSM Supplementary Services	Yes	Yes	Yes	Yes
TCP/IP & UDP Protocol	Yes	Yes	Yes	Yes
Dynamic & Static IP allocation	-	-	Yes	Yes
PPP Protocol	-	-	Yes	Yes

* The signal levels do not match the standard RS232. An electrical level conversion hardware must be used where necessary; ** Please consider GR64 for new designs; *** Specification is preliminary and subject to change without prior notice.

Order Code	On-board SIM card holder	Embedded application	USB
GSM GR64/10	-	-	-
GSM GR64/20	Yes	-	Yes
GSM GR64/30	-	Yes	-
GSM GR64/40	Yes	Yes	Yes
GSM GS64/10	-	-	Yes
GSM GS64/20	-	Yes	Yes
GSM GS64/40	Yes	-	Yes
GSM GS64/50	Yes	Yes	Yes



Accessories for GSM products

Order Code	Description
GSM FLAT ANTENNA 1	Antenna for GM47/GR47/GM41/GR64/GS64/GA64, flat, SMA, 1dB
GSM FLAT ANTENNA 2	Antenna for GM47/GR47/GM41/GR64/GS64/GA64, flat, SMA, 3dB
GSM MG5F	GSM GM29/GT47 Antenna, magnetic, 5dB, FME connector
GSM GM47/GR47 ANT CABLE 1	GM/GR47/GR64 antenna cable MMCX->SMA, RG174, 150mm
GSM GM47/GR47 ANT CABLE 2	GM47/GR47/GR64 antenna cable MMCX->SMA, RG174, 70mm
GSM GM47/GR47 SMD CON	GM47/GR47/GR64 60-pin SMD connector, 1.27mm pitch
GSM SIMH 1	SIM card holder with SIMCARD PRESENCE
GSM SIMH 2	SIM card holder without SIMCARD PRESENCE

OEM GPS receivers ANTARIS 4 Technology



Founded in 1997, **u-blox**, now offers innovative solutions for a wide range of GPS applications, telecommunications, fleet management, car navigation, tracking systems, aeronautics, military, security.

The latest TIM-4x **ANTARIS 4** products offer a GPS macro-component, which can be processed like a single chip component. Their ultra thin and small packages in combination with minimal power consumption and excellent GPS performance, make this receiver first choice for mobile GPS applications.

All **ANTARIS 4** products are RoHS compatible.

ANTARIS4 Products

Order code	Dimensions, mm	Antenna	Memory	Ports		GPIO and firmware					Power								
		Passive antenna	Active antenna	Antenna supervision	Firmware update	Save configuration settings	Programmable ¹	USB	Number of UARTs	UART voltage levels, V	5V tolerant inputs	Boot time configuration pins ¹	SPI ¹	Time pulse output	I/O voltage levels, V	Super Sense	Precision Timing	Supply voltage, V	Current consumption, mA ²
GPS LEA-4A	17x22	●	●	●				●	2	Var	●	●		●	Var		2.7-3.3	35	
GPS TIM-4A	25x25	●	●	●					2	3.0	●	●		●	3.0		2.7-3.3	35	
GPS LEA-4P	17x22	●	●	●	●	●	●	●	1	Var	●		●	●	●	Var		2.7-3.3	36
GPS TIM-4P	25x25	●	●	●	●	●	●		2	3.0	●		●	●	●	3.0		2.7-3.3	36
GPS LEA-4H	17x22	●	●	●	●	●	●	●	1	Var	●			●	Var	●		2.7-3.3	39
GPS TIM-4H	25x25	●	●	●	●	●	●		2	3.0	●		●	●	●	3.0	●	2.7-3.3	39
GPS LEA-4S	17x22	●	●	●				●	2	Var	●	●	●	●	Var	●		2.7-3.3	38
GPS TIM-4S	25x25	●	●	●					2	3.0	●	●		●	3.0	●		2.7-3.3	38
GPS LEA-4T	17x22	●	●	●	●	●	●	●	1	Var	●			●	Var	●	2.7-3.3	39	
GPS RCB-4H	41x71	●	●	●	●	●	●		2	3.0	●			●	3.0	●		3.15-5.25	39

• Supported, ¹ANTARIS SCKIT required, ² Supply voltage: 3.0V

Var - UART and I/O voltage levels are set by voltage applied to the VDDIO pin. Range: 1.65 ... 3.6 V

Evaluation kits for **ANTARIS 4** products

These new evaluation kits use a built-in USB interface for both power supply and high-speed data transfer to PC.

- ◆ **GPS Antaris 4 EvKit AEK-4P** – Evaluation kit for LEA-4A, TIM-4A, LEA-4P and TIM-4P.
- ◆ **GPS Antaris 4 EvKit AEK-4H** – Evaluation kit for Super Sense products LEA-4H, TIM-4H.

The u-Center GPS Evaluation Software provides a powerful platform for fast product evaluation, configuration, testing and performance visualization of **u-blox** GPS receiver products.



GPS Active Antennas

Order code	Description
GPS ANN	GPS antenna 5m RG174 coaxial cable, u-blox
GPS ANN-1 MCX	GPS antenna 2.7-6V, 8.5mA, 27dB, 5m RG174 coaxial cable, MCX connector
GPS ANN-1 SMA	GPS antenna 2.7-6V, 8.5mA, 27dB, 5m RG174 coaxial cable, SMA connector
GPS ANN-2 MCX	GPS antenna 3-5V, 22mA, 27dB, 5m RG174 coaxial cable, MCX connector
GPS ANN-3 MCX	GPS antenna 3-5V, 22mA, 27dB, 5m RG174 coaxial cable, MCX connector LOW COST

SENA

Device Servers

SENA offers a variety of device servers and adapters for Ethernet, wireless 802.11b WiFi, Bluetooth and Serial Communications.

Serial device servers with Ethernet interface

LS100 – Ethernet-to-serial device adapter

- ✓ Single port serial adapter;
- ✓ 10Base-T Ethernet interface;
- ✓ Integrated ARP, IP/ICMP, TCP/IP, Telnet, DHCP, PPPoE protocols;
- ✓ Standard RS232 port up to 115 Kbps;
- ✓ Power supply 7.5V ~ 15V DC.



STS800/1600 - Linux based terminal servers



- ✓ 8/16 serial ports;
- ✓ 10/100Base-T Ethernet interface;
- ✓ Integrated Ethernet protocols (TCP/IP, DNS, SMTP, DHCP, HTTP, etc.)
- ✓ PCMCIA card slot.



SS100/110/400/800 – Linux based serial device servers

- ✓ 1/4/8 serial ports;
- ✓ 10/100Base-T Ethernet interface
- ✓ RS232/422/485 interface, up to 230Kbps;
- ✓ Integrated Ethernet protocols (TCP/IP, DNS, SMTP, DHCP, PPP, etc.)
- ✓ PCMCIA card slot (without SS100).



Wireless servers and adapters



LS100W – Wireless adapter

- ✓ Single port wireless-to-serial adapter;
- ✓ 802.11b WiFi wireless interface;
- ✓ Integrated ARP, IP/ICMP, TCP/IP, Telnet, DHCP protocols;
- ✓ Standard RS232 port, up to 115 Kbps;
- ✓ Power supply 9V ~ 30V DC.

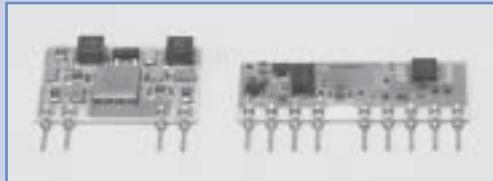


Parani-MSP100 – Industrial Bluetooth server

- ✓ RoHS compliant version of well known Promi-MSP Bluetooth server;
- ✓ Bluetooth v2.0 Class I, output level 18dBm;
- ✓ Bluetooth point-to-multipoint with up to 6 devices,
- ✓ Profiles: Serial Port, LAN Access, PAN, Dial up Networking;
- ✓ 10/100 Base-T Ethernet interface;
- ✓ Integrated HTTP, FTP, Telnet, DHCP, SNMP protocols.

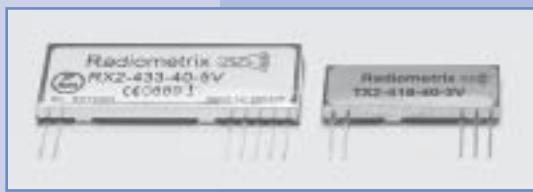
Radio Receiver/Transmitter Modules

		1-4	5-24	25-99	100+
AM-HRR3-418	AM Receiver 418 MHz 5V 2.5mA	6.932	6.211	5.989	5.545
AM-HRR3-433	AM Receiver 433 MHz 5V 2.5mA	6.568	5.885	5.674	5.254
AM-HRR30-433	AM Receiver 433 MHz 5V 2.5mA, miniature	6.989	6.262	6.039	5.591
AM-HRR6-418	AM Receiver 418 MHz 5V 0.5mA	7.022	6.292	6.067	5.618
AM-HRR6-433	AM Receiver 433 MHz 5V 0.5mA	7.022	6.292	6.067	5.618
AM-HRR8-433	AM Receiver 433 MHz 3V 0.5mA	6.952	6.229	6.006	5.561
AM-RT4-418	AM Transm.DIL 418 MHz 50Hz-9.6kHz 2-14V 100m	10.024	8.981	8.660	8.019
AM-RT4-433	AM Transm.DIL 433 MHz 50Hz-9.6kHz 2-14V 100m	6.189	5.545	5.347	4.951
AM-RT5-418	AM Transm.SIL 418 MHz 50Hz-9.6kHz 2-14V 100m	8.818	7.901	7.619	7.055
AM-RT5-433	AM Transm.SIL 433 MHz 50Hz-9.6kHz 2-14V 100m	8.018	7.184	6.927	6.414
AM-TX1-433	AM Transmitter 433 MHz 2.5-12V 2.5mA up to 30m	11.693	10.477	10.103	9.354
FM-TX1-173-10-225K	FM Transmitter 173.225MHz 10kbps 3-10V	36.170	34.555	33.263	32.294
FM-RX1-173-10-225K	FM Receiver 173.225MHz 3-10V	86.832	82.956	79.854	77.529
FM-BIM2-433-160-5V	FM Transceiver 433 MHz 160kbps 5V	45.975	43.922	42.280	41.049
FM-RX2-433-40-5V	FM Receiver 433 MHz 40kbps 5V	26.525	25.341	24.394	23.683
FM-RX2-418-40-3V	FM Receiver 418 MHz 40kbps 3V	26.525	25.341	24.394	23.683
FM-RX2-433-160-3V	FM Receiver 433 MHz 160kbps 3V	26.525	25.341	24.394	23.683
FM-RX2-433-160-5V	FM Receiver 433 MHz 160kbps 5V	26.525	25.341	24.394	23.683
FM-RX2-433-40-3V	FM Receiver 433 MHz 40kbps 3V	26.525	25.341	24.394	23.683
FM-RX2A-433-64	FM Receiver 433MHz 64kbps with RSSI	49.306	47.105	45.344	44.023
FM-RX3A-869-64	FM Receiver 869 MHz 64kbps 2.7-16V	31.982	30.555	29.412	28.556
FM-SILRX-418-5	FM Receiver 418 MHz 5kbps 5V	25.129	24.007	23.110	22.437
FM-SILRX-433-5	FM Receiver 433 MHz 5kbps 5V	25.129	24.007	23.110	22.437
FM-SPM2-433-28	FM Spaceport Modem 433MHz 28kbps 5V	110.339	105.413	101.472	98.517
FM-TX2-433-40-5V	FM Transmitter 433 MHz 40kbps 5V	14.189	13.556	13.049	12.669
FM-TX2-433-160-3V	FM Transmitter 433 MHz 160kbps 3V	14.189	13.556	13.049	12.669
FM-TX2-433-160-5V	FM Transmitter 433 MHz 160kbps 5V	14.189	13.556	13.049	12.669
FM-TX2-433-40-3V	FM Transmitter 433 MHz 40kbps 3V	14.189	13.556	13.049	12.669
FM-TX3A-869-64	FM Transmitter 869 MHz 64kbps 2.2-12V	25.541	24.401	23.489	22.804
FM-TXM-418-5	FM Transmitter 418 MHz 5kbps 9V	11.352	10.845	10.439	10.135
FM-TXM-433-5	FM Transmitter 433 MHz 5kbps 9V	11.352	10.845	10.439	10.135
FLEXI-4BA-418	Flexi 4BA 1/4 Wave Antenna 418 MHz	7.072	6.336	6.110	5.657
FLEXI-4BA-433	Flexi 4BA 1/4 Wave Antenna 433 MHz	7.072	6.336	6.110	5.657
PU-4BA-418	Helical 4BA 1/4 Wave Antenna 418 Mhz	9.934	8.901	8.583	7.947
PU-4BA-433	Helical 4BA 1/4 Wave Antenna 433 MHz	7.940	7.114	6.860	6.352



AM-RT5-433

AM-HRR30-433



FM-RX2-433-40-5V

FM-TX2-418-40-3V

CML Microcircuits - Application specific ICs for radio and telecommunications

		1-4	5-24	25+	
CMX469AD3 SMD	SO20	Baud duplex FFSK modem	16.563	15.817	14.922
CMX469AE2 SMD	TSSOP24	Baud duplex FFSK modem	16.563	15.817	14.922
CMX602BD4 SMD	SO16	CLIP + Call waiting 1	5.761	5.502	5.190
CMX639E2 SMD <small>NEW</small>	TSSOP24	CVSD Digital Voice Codec	12.884	12.304	11.607
CMX649AD3 SMD	SO20	Adaptive Delta Modulation Codec			
CMX808AE3 SMD	TSSOP20	CTCSS Type 2 Tone Coder / Decoder			
CMX850L8 SMD	LQFP100	Communications controller 8051 based	20.426	19.506	18.402
CMX868AD2 SMD	SO24	Low Power V.22 bis modem, CMX868 upgrade	6.073	5.800	5.471
CMX868D2 SMD	SO24	Low power V.22 bis modem	14.403	13.754	12.976
CMX869D2 SMD <small>NEW</small>	SO24	Low power V.32 bis modem	14.665	14.004	13.212
CMX881D6 SMD	SSOP28	Baseband processor for PMR and Trunked Radios			
CMX882D6 SMD	SSOP28	Baseband processor for PMR + GPS data			
CMX909BD5 SMD	SSOP24	GMSK packet data modem	34.693	33.130	31.255
CMX981Q1 SMD	QFP64	ADR Baseband processor			
FX604D4 SMD	SO16	V.23, 1200b/s modem	8.313	7.938	7.489
FX604P3	DIP16	V.23, 1200b/s modem	8.767	8.373	7.899
FX614D4 SMD	SO16	Bell 202 FSK modem	8.118	7.752	7.314
FX614P3	DIP16	Bell 202 FSK modem	10.972	10.478	9.885
FX631P	DIP16	SPM / Call Charge Metering	10.349	9.883	9.324



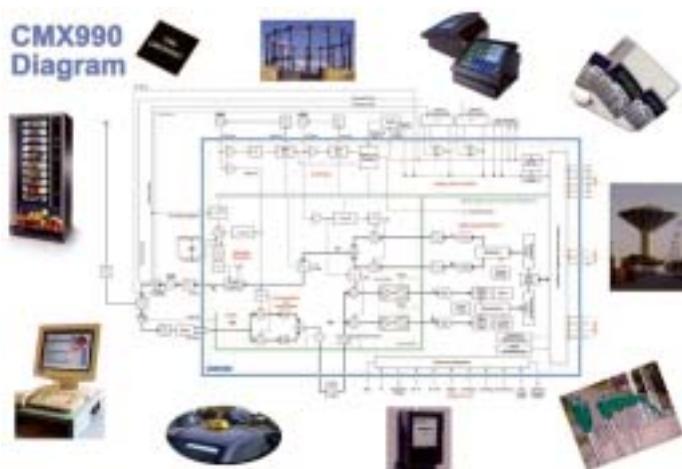
CML Microcircuits

COMMUNICATION SEMICONDUCTORS

Communication ASICs from CML Microcircuits

CMX990 GMSK Packet-Data Modem and RF Transceiver

- ✓ Half-Duplex GMSK Modem, 4 – 16 kb/s;
- ✓ Low supply voltage - 3.0 - 3.6 V;
- ✓ Custom-Packet and Freeformat modes for data transmissions;
- ✓ Simple Parallel Interface for host microcontroller;
- ✓ Suitable for Mobitex wireless standard, EN 300 113 and FCC CFR 47 Part 90 Applications;
- ✓ Full-Feature Airlink Frame Formatting FEC and CRC;
- ✓ Integrated RF, IF and Synthesizer Sections - 400MHz to 1GHz Range;
- ✓ On-Chip ADCs and DACs for Radio Control and General Purpose Monitoring.



CMX909B GMSK Packet-Data Modem

- ✓ Half-Duplex GMSK Modem;
- ✓ Maximum Rx and Tx data speed 38.4 kb/s;
- ✓ Power supply 2.7 – 5.5V;
- ✓ Operating temperature -40 to +85°C;
- ✓ Full Mobitex: compatibility including R14N Short-Block Frames
- ✓ Full packet handling – synchronization, CRC, FEC, scrambling and etc.;
- ✓ Host Processor parallel interface;
- ✓ Tree types of packages: TSSOP, SSOP and DIL 24-pin.

CMX869x series, V32bis modems

- ✓ Multi-standard QAM, DPSK and FSK Modem ICs with multiple modes, data rates and automodem features;
- ✓ Versatile telephone signalling functions provide end-to-end communication;
- ✓ Very low-power supply - 3.0 to 3.6 V;
- ✓ 2- or 4-wire operation;
- ✓ DTMF/Tones Transmit and Receive;
- ✓ Ring detect / line reversal input;
- ✓ Compact 24-pin TSSOP, SOIC and DIL packaging.

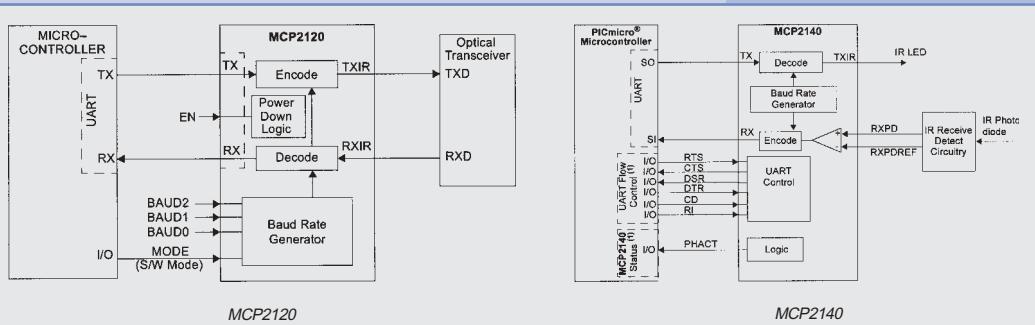


CMX639 – CVSD Digital Voice Codec

- ✓ Single chip, full duplex CVSD voice codec;
- ✓ Integrated input and output filters;
- ✓ Programmable Sampling Clocks;
- ✓ 3 and 4 bit Companding Algorithms;
- ✓ Low power consumption (1.9mA typ. @ 3V);
- ✓ Small size device;
- ✓ Supply voltage - 3.0V to 5.5V;
- ✓ Microcontroller interface.

TELECOM

			1-4	5-24	25-99	100+	500+
LM567CN	DIP8	Tone Decoder	0.517	0.465	0.428	0.398	0.369
LMC567CN	DIP8	Tone Decoder CMOS	0.935	0.849	0.762	0.719	
XR2211ACP	DIP14	FSK Demodulator / Tone decoder	1.917	1.740	1.563	1.475	
MT8870(CM8870PI)	DIP18	DTMF Receiver	0.891	0.799	0.746	0.660	
MT8870(CM8870CSI)	SO18	DTMF Receiver	1.230	1.102	1.029	0.911	
MT8880(CM8880PI)	DIP18	DTMF Transmitter uP/uC Interface	4.406	3.949	3.688	3.264	
rfPIC12C509AF/JW	WCDIP20	310-440MHz, ASK/FSK, 1K EPR	11.665				
rfPIC12C509AF-ISS	SSOP20	310-440MHz, ASK/FSK, 1K OTP	2.947	2.675	2.403	2.267	
rfPIC12C509AG/JW	WCDIP20	310-440MHz, ASK, 1K EPR	11.665				
rfPIC12C509AG-I/SS	SO18	310-440MHz, ASK, 1K OTP	2.816	2.556	2.296	2.166	
rfPIC12F675F-I/SS	SSOP20	380-450MHz, RF TX ASK/FSK, 1K FLASH	2.947	2.675	2.403	2.267	
rfPIC12F675H-I/SS	SSOP20	850-930MHz, RF TX ASK/FSK, 1K FLASH	2.947	2.675	2.403	2.267	
rfPIC12F675K-I/SS	SSOP20	290-350MHz, RF TX ASK/FSK, 1K FLASH	2.947	2.675	2.403	2.267	
rfrXD0420-I/LQ	LQFP	315/433 MHz ASK/FSK Receiver	3.654	3.317	2.980	2.811	
rfrXD0920-I/LQ	LQFP	868/915 MHz ASK/FSK Receiver	3.654	3.317	2.980	2.811	
MCP2120-I/SL	SO14	Infrared Encoder/Decoder	1.729	1.569	1.410	1.330	
MCP2140-I/P	SO14	9600 baud IrDA protocol handler and bit encoder/decoder	2.030	1.842	1.655	1.561	

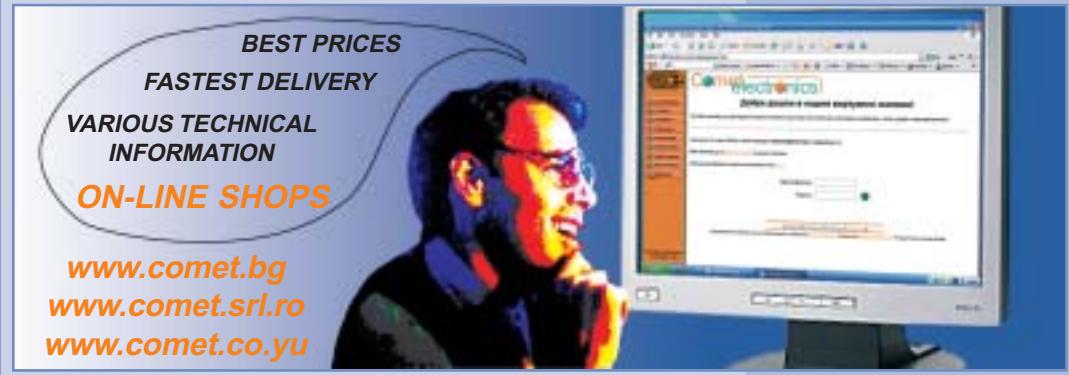


Chipcon - Single-chip RF transceivers and transmitters

		1-24	25+
CC1000 SMD	TSSOP28	RF 0.3-1GHz TX/RX FSK/ASK	4.974
CC1020 SMD	QFN32	RF 0.4-0.94GHz TX/RX FSK/ASK/GFSK	5.951
CC1021 SMD	QFN32	RF 0.4-0.94GHz TX FSK/ASK/GFSK/OOK	4.956
CC1050 SMD	TSSOP24	RF 0.3-1GHz TX FSK/ASK	2.071
CC1100 SMD	QLP20	RF 0.3-0.9GHz TX/RX 2-FSK/ASK/QPSK/OOK	3.261
CC2400 SMD	QLP48	RF 2.4-2.48GHz TX/RX 32Bytes FIFO	4.950
CC2420 SMD	QLP48	CC2420 RF 2.4-2.48GHz TX/RX ZigBee Compl.	4.950

Energy Metering

		1-24	25-99	100+		
MCP3905-I/SS	NSOP24	Energy Meter IC, Gain 1:16, 500:1 Dynamic Range	2.267	2.052	1.954	
Sensors		1-4	5-24	25-99		
LM335Z	TO92	Temp. sensor, 2-terminal zener, 10 mV/K.	0.579	0.504	0.482	0.439
TC77-5.0MOA	SO8	High-Accuracy, 13-bit Thermal Sensor with SPI/TM Interface	1.037	0.962	0.895	0.836
TC77-5.0MCTTR	SOT23A-5	High-Accuracy, 13-bit Thermal Sensor with SPI/TM Interface	1.124	1.043	0.970	0.907
TCN75-5.0MUA NEW	MSO8	2-Wire Serial Temp Sensor/Thermal Monitor	1.187	1.101	1.024	0.957
TCN75AVOA NEW	SO8	2-Wire Serial Temp Sensor/Thermal Monitor	0.662	0.614	0.571	0.534
TCN75AVUA NEW	MSO8	2-Wire Serial Temp Sensor/Thermal Monitor	0.662	0.614	0.571	0.534



Sensors

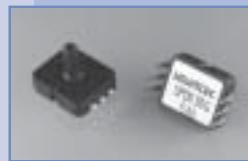
			1-4	5-24	25-99	100+
SMT16030Z	TO92	Temp.sensor -45+130°C pulse output	3.161	2.869	2.577	2.431
SMT16030M	TO18	Temp.sensor -45+130°C pulse output	3.852	3.496	3.141	2.963
SMT16030T	TO220	Temp.sensor -45+130°C pulse output	3.555	3.227	2.899	2.735
SMTIR9902	TO05	IR sensor -40+100°C	16.159	14.947	14.140	13.466
SMTHS10		Humidity sensor 240pF 0-100%RH lin2%	11.548	10.682	10.104	9.623
SMTUT103 DIP	DIP16	Universal transducer interface	5.820	5.283	4.745	4.477
SMTUT103 SMD	SO18	Universal transducer interface	5.820	5.283	4.745	4.477
SPD005G		Smartec pressure sensor 0-0.35Bar (gauge)	4.226	3.836	3.446	3.251
SPD015G		Smartec pressure sensor 0-1.0Bar (gauge)	4.226	3.836	3.446	3.251
SPD030G		Smartec pressure sensor 0-2.0Bar (gauge)	4.226	3.836	3.446	3.251
SPD100G		Smartec pressure sensor 0-6.5Bar (gauge)	4.226	3.836	3.446	3.251
SPD015A		Smartec pressure sensor 0-1.0Bar (absolute)	4.226	3.836	3.446	3.251



SMTIR9902

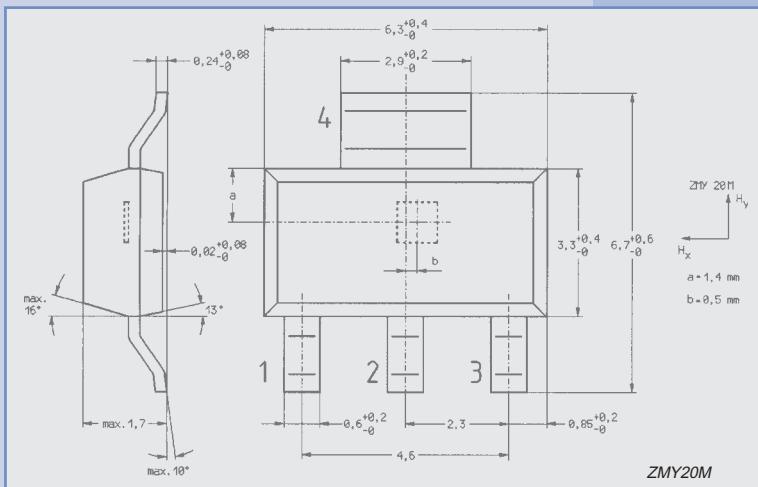


SMTUT103



SMTHS10

			1-4	5-24	25-99	100+
DS1624S	WS08	2-Wire temp sensor w/ 256byte EEPROM, 13-bit	6.370	5.892	5.573	5.308
ZMC10	DIP14	Current Sensor 10A 0.7 mOhm Visol 2KV 100kHz	5.556	4.915	4.274	
ZMC20	DIP14	Current Sensor 20A 0.7 mOhm Visol 2KV 100kHz	5.556	4.915	4.274	
ZMY20	SOT223	magnetic sensor 12V 4(mV/V)/(KA/m) SMD	2.660	2.353	2.046	
ZMY20M	SOT223	magn sensor with a magnet 12V 4(mV/V)/(KA/m)	3.071	2.717	2.362	

**Gas sensors**

			1-4	5-24	25-99	100+
SemiGAS 04 ^{NEW}		natural gas, methane 300-10000ppm	3.635	3.371	3.137	2.932
SemiGAS 06 ^{NEW}		LPG, iso-butane, propane 100-10000ppm	3.635	3.371	3.137	2.932
SemiGAS 07 ^{NEW}		CO 10-1000ppm	8.618	7.992	7.436	6.950
TGS 813-A00 ^{EW}		LP-gas / propane 500-10000 ppm	20.263	18.792	17.485	16.341

Intelligent Optical Sensors

			1-4	5-24	25-99	100+
TSL1402RE ^{NEW}		Linear array 256x1, 400dpi, 3-5V	13.457	12.480	11.612	10.853
TSL2561T ^{NEW}		Ambient light sensor, I2C bus, 2.7-3.6V	2.147	1.908	1.701	1.590
TCS230DJ ^{NEW}	SO8	Sensor RGB 8x8, Light-to-Frequency, 2.7-5.5V	4.441	3.948	3.520	3.290
TSL1401RE ^{NEW}	DIP8	Linear array 128x1, 400dpi, 3-5V	6.147	5.464	4.872	4.553
TSL2550DJ ^{NEW}	SO8	Ambient light sensor, SMBus, 2.7-5.5V	2.634	2.342	2.088	1.951
TSL230BRP ^{NEW}		Light-to-frequency 320-1050nm, 5%, 2.7-5.5V	5.393	4.794	4.275	3.995
TSL254R ^{NEW}		Light-to-Voltage 350-1000nm, 1.1mA, 2.7-5.5V	2.355	2.094	1.867	1.745
TSL202RB ^{EW}		Linear array 128x1, 200dpi, 4.5-5.5V	13.179	12.222	11.372	10.628
TSL237S ^{EW}	SIP3	Light-to-freq. 320-1050nm, 2.7-5.5V tr=2ns	2.854	2.537	2.262	2.114
TSL250R ^{EW}	SIP3	Light-to-Volt. 350-1000nm, 1.1mA, 2.7-5.5V, tr=260ns	1.837	1.633	1.456	1.361

Intelligent Optical Sensors

1-4 5-24 25-99 100+

TSL201RB^{NEW}
TSL210RB^{NEW}
TSL257^{EW}

SIP3

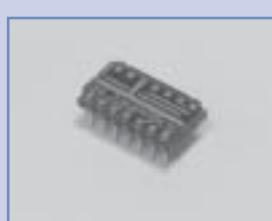
 Linear array, 64x1, 200dpi, 4.5-5.5V
 Linear array, 640x1, 200dpi, 4.5-5.5V
 Light-to-Voltage 350-1000nm, 1.9mA 2.7-5.5V tr=160ns

 5.229 4.648 4.144 3.873
 39.212 37.219 35.225 33.231
 1.460 1.298 1.157 1.082

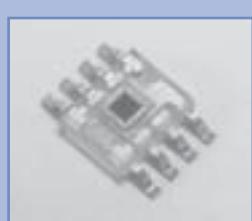

TSL257/237



TSL2xx/14xx



TSL1402/202R



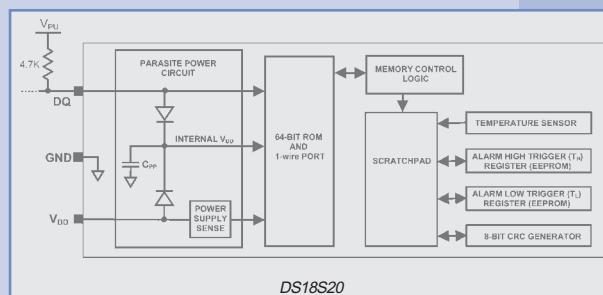
TCS230D

iButton / 1-Wire

1-4 5-24 25-99 100+

DS1822
DS1822Z SMD
DS18B20
DS18S20
DS1821
TO92
S08
TO92
TO92
PR35

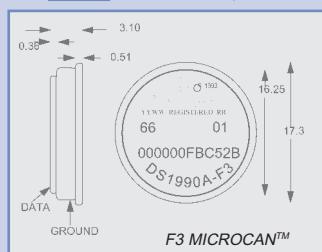
 1-Wire econo Digital Thermometer +/-2°C accu
 1-Wire econo Digital Thermometer +/-2°C accu
 1-Wire Prog Digital Thermometer 9-12bit, +/-0.5°C
 1-Wire Prog Digital Thermometer 9bit, +/-0.5°C
 1-Wire Prog Digital Thermostat ±1°C 0°C +85°C

 2.939 2.726 2.536 2.370
 2.939 2.726 2.536 2.370
 3.833 3.554 3.307 3.091
 3.833 3.554 3.307 3.091
 4.795 4.447 4.138 3.867


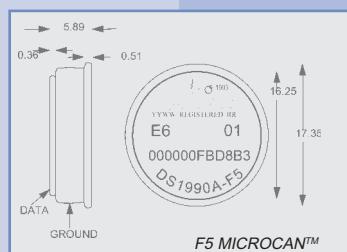
DS18S20

DS1921H-F50
DS1921Z-F50
DS1921G-F5
DS1990A-F3
DS1990A-F5
DS1994L-F5
DS1996L-F5
DS2401
DS2405
DS2406P
DS2408S
DS2409P
F3 (Can)
F3 (Can)
F5 (Can)
F3 (Can)
F5 (Can)
F5 (Can)
F5 (Can)
TO92
TO92
TSOC6
S016
TSOC6

 Thermochron iButton, 0.125°C Resol., 15°C-46°C
 Thermochron iButton, 0.125°C Resol., -5°C - +26°C
 Thermochron iButton, 0.5°C Resol., -40°C - +85°C
 iButton Serial Number F3
 iButton Serial Number F5
 iButton Memory & Time 4kbit R/W F5
 iButton Memory & Time 64kbit R/W F5
 1-Wire Silicon Serial Number
 1-Wire Addressable Switch
 1-Wire Dual Addressable Switch
 1-Wire 8-CH PIO, 1K EEPROM
 1-Wire Coupler

 25.415 23.570 21.931 20.496
 25.415 23.570 21.931 20.496
 25.415 23.570 21.931 20.496
 2.661 2.467 2.296 2.146
 2.661 2.467 2.296 2.146
 14.979 13.892 12.925 12.080
 13.295 12.330 11.473 10.722
 1.372 1.272 1.184 1.106
 1.636 1.517 1.412 1.319
 4.974 4.613 4.292 4.011
 6.058 5.619 5.228 4.886
 3.305 3.065 2.852 2.665


F3 MICROCAN™



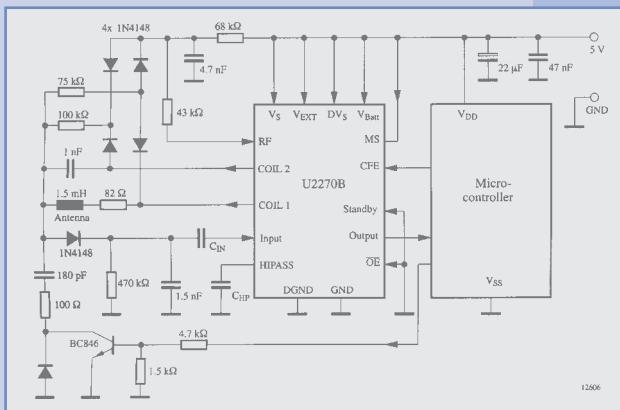
F5 MICROCAN™

iButton / 1-Wire

			1-4	5-24	25-99	100+
DS2417P	SO8	1-Wire Real Time Clock	1.983	1.839	1.711	1.599
DS2450S	SO8	1-Wire A/D Converter Quad	6.399	5.935	5.522	5.161
DS2480B	SO8	1-Wire Serial Line Driver	5.010	4.647	4.323	4.041
DS2423P	TSOC6	1-Wire RAM 4kbit + Event Counters	8.863	8.220	7.648	7.148
DS2432P	TSOC6	1-wire EEPROM 1kb SHA-1 Engine	3.208	2.975	2.768	2.587
DS9092/no brand		iButton probe	8.623	7.997	7.441	6.954
DS9092-1/no brand		iButton probe contact, parallel wall	1.164	1.079	1.004	0.939
DS9092-3/no brand		Touch probe insert, plastic body	1.279	1.186	1.103	1.031
DS9092-4/no brand		iButton probe contact, center contact	1.279	1.186	1.103	1.031
DS9092RG/no brand		iButton port with groove	1.639	1.520	1.415	1.322
DS9092T/no brand		iButton probe panel mount with tactile feedback	15.410	14.291	13.297	12.427
DS9093A		iButton fob, angled, snap-in for F5 iButton BLACK	0.857	0.761	0.679	0.635
DS9093N/no brand		iButton fob through hole for F5 iButton BLACK	1.268	1.127	1.005	0.939
DS9094-SM5		iButton SM METAL CLIP 5 CANS	1.856	1.721	1.601	1.496
DS9097E		1-Wire universal serial adapter, +12V power jack	38.197	35.424	32.960	30.804
DS9097U-009		1-Wire universal serial adapter, with DS2502 ID chip	28.160	26.116	24.299	22.710
DS9097U-S09		1-Wire universal serial adapter, no ID chip	27.647	25.641	23.857	22.296
DS9490R		1-W to USB Port Adapter	27.267	25.288	23.529	21.989
DS9502P	TSOC6	1-Wire ESD protection diode	0.828	0.736	0.656	0.613
DS2438Z	SO8	1-Wire Smart battery monitor	2.830	2.625	2.442	2.282
DSTINIM400		DS80C400 Network Microcontroller Eval. Kit	107.116			
DSTINIS400		DSTINIs400 Sockets Evaluation Board	53.421			

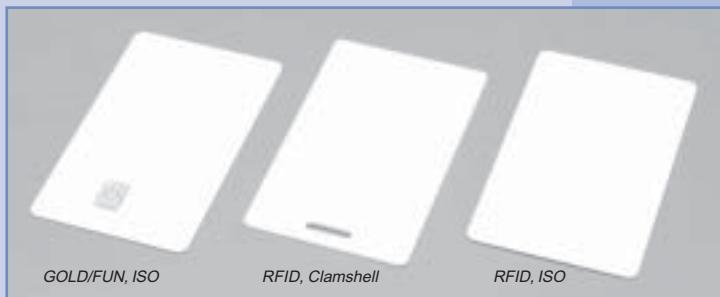
Security components

			1-4	5-24	25-99	100+	500+
MC145026P	DIP16	Encoder	0.701	0.653	0.606	0.564	0.527
MC145027P	DIP16	Decoder, 5bits address,4 bits data	1.115	1.039	0.964	0.897	0.838
MC145028P	DIP16	Decoder, 9 bits address,three state	1.072	0.999	0.927	0.862	0.806
HCS200/SN	NS08	Code-Hopping Encoder 3.5-13V SMD	1.165	1.057	0.950	0.896	
HCS200T/SN	NS08	Code-Hopping Encoder 3.5-13V SMD	1.257	1.141	1.025	0.967	
HCS300/SN	NS08	Code-Hopping Encoder 2-6.3V SMD	1.296	1.176	1.057	0.997	
HCS301/SN	NS08	Code-Hopping Encoder 3.5-13V SMD	1.296	1.176	1.057	0.997	
HCS301-I/SN	NS08	Code-Hopping Encoder 3.5-13V SMD -40+85°C	1.427	1.295	1.163	1.097	
HCS360/SN	NS08	Code-Hopping Encoder 2-6.3V SMD	1.675	1.521	1.366	1.289	
HCS410/SN	NS08	Transponder 2-6.3V SMD	1.911	1.735	1.558	1.470	
HCS412/SN	NS08	Transponder ,2-6.3V,SMD	2.107	1.913	1.718	1.621	
HCS500/P	DIP8	Code-Hopping Decoder 3 functions	2.068	1.877	1.686	1.591	
HCS500/SM	SO8	Code-Hopping Decoder 3 functions	2.159	1.960	1.761	1.661	
HCS515/P	DIP18	Code-Hopping Decoder with serial interface	2.513	2.281	2.049	1.933	
HCS515-I/P	DIP14	Code-Hopping Decoder with serial interface	2.762	2.507	2.252	2.124	
HCS515/SL	NSO14	Code-Hopping Decoder with serial interface	2.552	2.317	2.081	1.963	
2SC4043S ROHM	SC72	NPN 20/11V 50mA 0.3W 3.2GHz 3.5dB	0.051	0.046	0.043	0.0372	0.0355
2SC3837K ROHM SMD	SC59	NPN 30/18V 50mA 0.2W 1.5GHz 4.5dB	0.077	0.070	0.064	0.0597	0.0553
2SC3838K ROHM SMD	SC59	NPN 20/11V 50mA 0.2W 3.2GHz 3.5dB	0.073	0.065	0.060	0.0561	0.0520
2SC4083 ROHM SMD	SOT323	NPN 20/11V 50mA 0.2W 3.2GHz 3.5dB	0.050	0.045	0.041	0.0385	0.0356
ISD1420P	DIP28	voice rec/play 20sec	3.397	3.150	2.931	2.739	
ISD2560P	DIP28	voice rec/play 60sec	5.435	5.041	4.690	4.383	
ISD2590P	DIP28	voice rec/play 90sec	5.621	5.213	4.851	4.533	
ISD25120P	DIP28	voice rec/play 120sec	6.393	5.929	5.517	5.156	
ISD4002-150S	SO28	voice rec/play 150sec	8.714	8.082	7.520	7.028	
ISD4003-4MP	DIP28	voice rec/play 4 min; Sample Rate 8.0 KHz	7.639	7.084	6.591	6.160	
ISD4003-6MP	DIP28	voice rec/play 6 min; Sample Rate 5.3 KHz	10.351	9.600	8.932	8.348	
ZSD100D8	DIP8	Siren Bi-tone Driver	0.627	0.571	0.501	0.464	
U2270B	SO16	Read/write transponders base station IC	2.693	2.497	2.324	2.172	

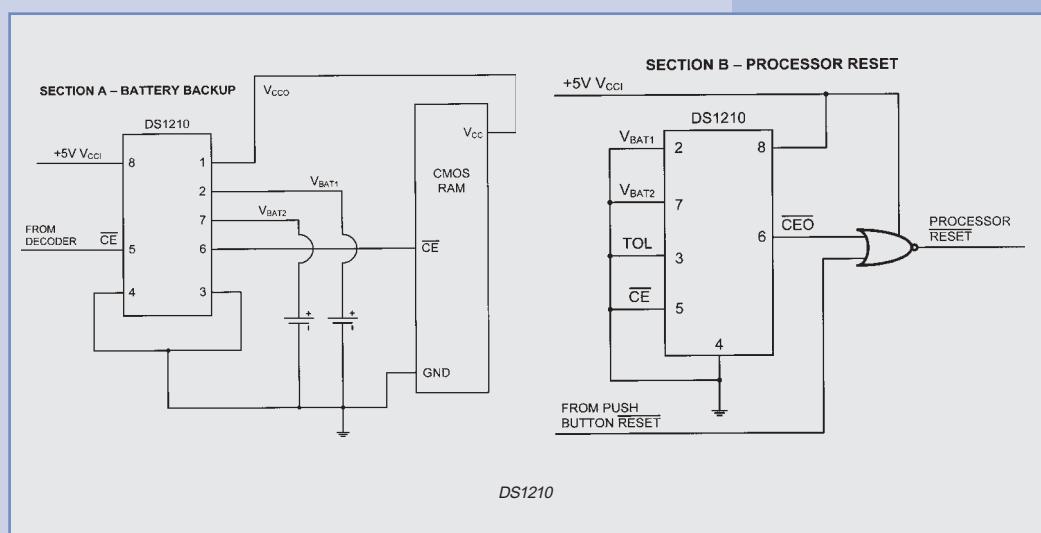


SMART CARDS

		1-4	5-24	25-99	100+
CARD+KEY TAG EM4100	RFID, 125kHz, 64bit read-only CID code drop tag	1.861	1.654	1.475	1.378
CARD EM4102 ISO	RFID, 125kHz, 64bit read-only CID code ISO	1.600	1.422	1.268	1.185
CARD EM4102 Clamshell	RFID, 125kHz, 64bit read-only CID, Clamshell	1.198	1.065	0.950	0.888
CARD SLE4442 ISO	256bytes EEPROM w/write protect and security	2.094	1.861	1.660	1.551
CARD SLE4428 ISO	1K EEPROM with w/write protect and security	2.048	1.821	1.624	1.517
CARD TEMIC5557 ISO	RFID, 125kHz, 330bit read-write, ISO	1.937	1.722	1.535	1.435
CARD MIFARE S-50	RFID, 13.56MHz, 1K read-write, encryption, ISO	3.013	2.678	2.388	2.232
CARD PIC16F84+24LC16	"GOLD 16K" smartcard, ISO	4.094	3.639	3.245	3.032
CARD AT90S8515A+24LC64	"FUN 64K" smartcard, ISO	6.277	5.579	4.975	4.649
CARD AT90S8515A+24LC1024	"FUN 1024K" smartcard, ISO	10.401	9.245	8.244	7.705
C70210M 008 206 4	connector ISO smart card low profile	2.166	1.925	1.717	1.604

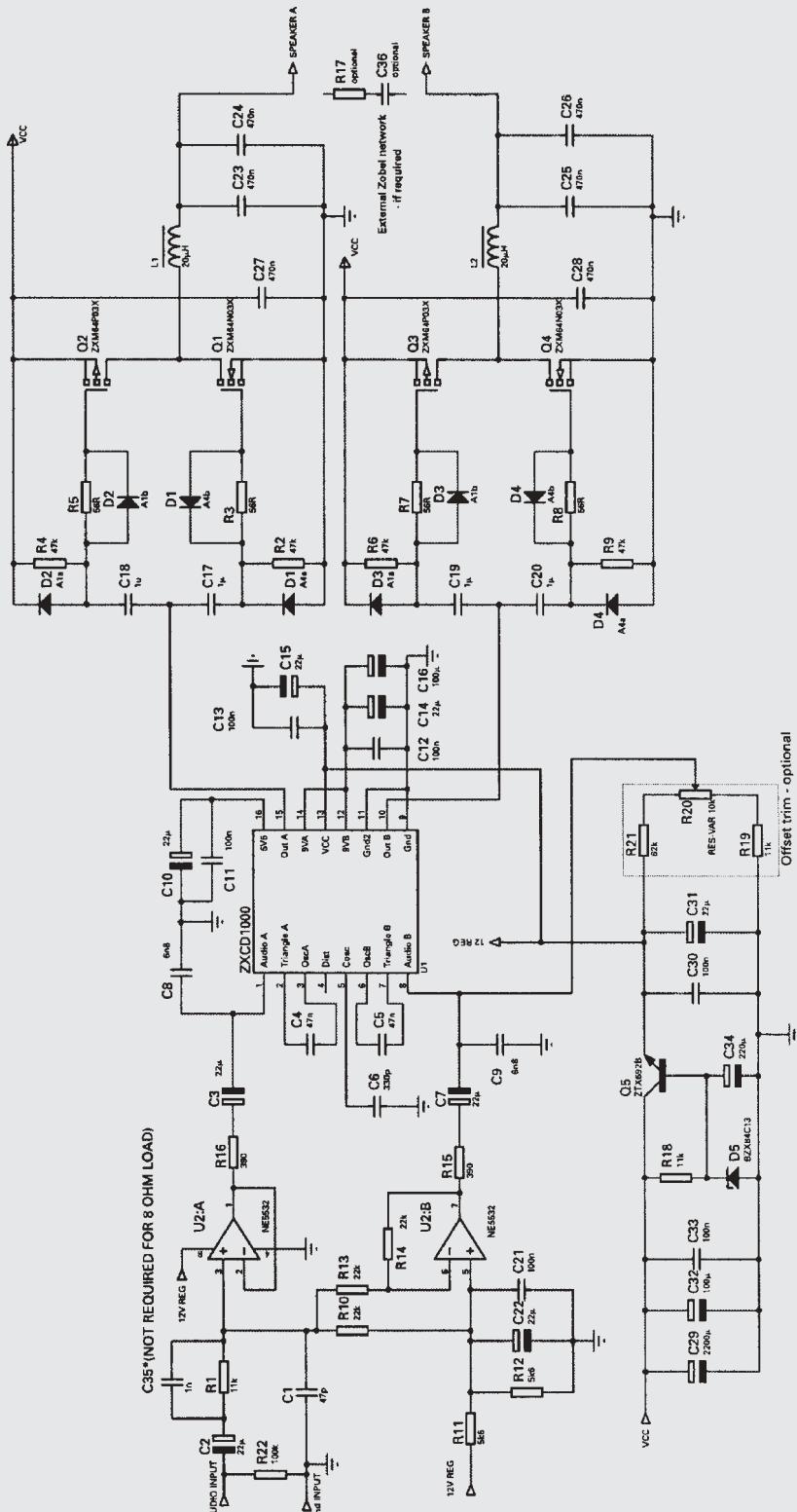
**Miscellaneous**

		1-4	5-24	25-99	100+
DG444CJ	DIP16	Quad SPST analog switches	2.128	1.973	1.836
MAX038CPP	DIP20	High-frequency waveform gen.	16.487	15.290	14.227
MAX4121CSA	NS08	330MHz Buffered Video SPDT Switch/Crosspoint	3.856	3.576	3.327
MAX4610CSD	NS014	Low-voltage 4 SPST CMOS analog switches	1.289	1.195	1.112
MAX662ACPA	DIP8	Flash Memory Programming Supply 12V,30mA	3.533	3.277	3.049
HT9200A	DIP8	DTMF tone generator	0.415	0.377	0.339
UAA2016P	DIP8	Triac Control Circuit	1.107	1.005	0.902
LS1240A	DIP8	2tone ring generator	0.343	0.307	0.287
DS1210	DIP8	Battery back up/RAM controller	2.987	2.770	2.578
					2.409



	1-24	25-99	100+
ZXCD1000MOKIT	7.602	6.724	5.847

Zetex Class D 25W Mono Open Loop



CMOS ICs 4000 Series

		1-4	5-24	25-99	100+
4001	4x2 INP NOR	0.163	0.148	0.130	0.121
4002	2x4 INP NOR	0.097	0.088	0.078	0.072
4007	COMPL.PAIR+INV	0.154	0.140	0.123	0.114
4010	6 NON-INV.BUFFER	0.200	0.182	0.160	0.148
4011	4x2 INP NAND	0.127	0.116	0.102	0.094
4013	2D-TYPE FLIP-FLOP	0.140	0.127	0.112	0.103
4014	8-STAGE STATIC SHIFT REG.	0.196	0.179	0.157	0.145
4015	2x4-STAGE STATIC SHIFT REG.	0.223	0.203	0.178	0.165
4016	4 BILATERAL SWITCH	0.142	0.129	0.113	0.105
4017	5 STAGE JOHNSON DECADE COUNTER	0.216	0.197	0.173	0.160
4018	PRESETTABLE DIVIDE BY 'N' COUNTER	0.282	0.257	0.226	0.209
4020	14-STAGE BINARY/RIPPLE COUNTER	0.245	0.223	0.196	0.182
4021	8-STAGE STATIC SHIFT REG.	0.233	0.212	0.186	0.172
4023	3x3 INP NAND	0.204	0.186	0.164	0.151
4024	7-STAGE BINARY/RIPPLE COUNTER	0.159	0.145	0.127	0.118
4025	3x3 INP NOR	0.120	0.109	0.096	0.089
4027	2J-K FLIP-FLOP	0.228	0.208	0.182	0.169
4028	BCD TO DECIMAL DECODER	0.184	0.167	0.147	0.136
4029	PRESETTABLE BIN/DEC UP/DOWN COUNTER	0.278	0.254	0.223	0.206
4030	4 EXCLUSIVE-OR	0.208	0.190	0.167	0.154
4040	12-STAGE BINARY/RIPPLE COUNTER	0.224	0.204	0.179	0.166
4042	4 CLOCKED D LATCH	0.139	0.126	0.111	0.103
4044	4x R/S LATCH TRIGERS, 3-STATE OUTPUT	0.225	0.205	0.180	0.166
4046	MICROPOWER PHASE-LOCKED LOOP	0.200	0.182	0.160	0.148
4047	MONOSTABLE/ASTABLE MULTIVIBRATOR	0.220	0.200	0.176	0.163
4049	6 INVERTING BUFFER/CONVERTER	0.158	0.144	0.127	0.117
4050	6 NON-INVERTING BUFFER/CONVERTER	0.164	0.150	0.131	0.122
4051	8-CHANNEL AN. MULTIPLEXER/DEMULITPLEXER	0.174	0.159	0.139	0.129
4052	2x4-CHANNEL AN. MULTIPLEXER/DEMULITPLEXER	0.184	0.168	0.148	0.137
4053	3x2-CHANNEL AN. MULTIPLEXER/DEMULITPLEXER	0.151	0.138	0.121	0.112
4060	14-STAGE COUNTER/DIVIDER AND OSCILLATOR	0.181	0.165	0.145	0.134
4066	4 BILATERAL SWITCHES	0.132	0.121	0.106	0.098
4069	6 INVERTERS	0.135	0.123	0.108	0.100
4070	4 EXCLUSIVE-OR GATE	0.128	0.117	0.103	0.095
4071	4x2-INPUT OR GATE	0.166	0.151	0.133	0.123
4081	4x2-INPUT AND	0.130	0.118	0.104	0.096
4082	2x4-INPUT AND	0.206	0.188	0.165	0.153
4093	4x2-INPUT NAND SCHMITT TRIGGER	0.135	0.123	0.108	0.100
4094	8-STAGE SHIFT-AND-STORE BUS REG	0.175	0.159	0.140	0.129
4099	8-BIT ADDRESSABLE LATCH	0.290	0.264	0.232	0.215
4502	STROBED 6 INVERTER/BUFFER	0.140	0.127	0.112	0.104
4510	PRESETTABLE 4-BIT BCD UP/DOWN COUNTER	0.306	0.279	0.245	0.227
4511	BCD TO 7 SEGMENT LATCH-DECODER/DRIVER	0.201	0.183	0.161	0.149
4512	8-C.H. DATA SELECTOR WITH 3-STATE OUTP	0.259	0.236	0.208	0.192
4515	4-BIT LATCH/4 TO 16 LINE DEC. (OUT LOW)	0.748	0.682	0.599	0.554
4516	PRESETTABLE 4-BIT BINARY UP/DOWN COUNTER	0.287	0.262	0.230	0.213
4518	2 BCD 4 BIT UP COUNTERS	0.189	0.172	0.151	0.140
4520	2 BINARY UP COUNTER	0.217	0.198	0.174	0.161
4521	24 STAGE DIVIDER (Q18..Q24)	0.708	0.646	0.567	0.525
4538	2 PRECISION MONOSTABLE MULTIVIBRATOR	0.223	0.203	0.178	0.165
4541	PROGRAMMABLE TIMER	0.206	0.188	0.165	0.153
4543	BCD-TO-7 SEGMENT LATCH-DECODER/DRIVER	0.250	0.228	0.200	0.185
40106=4584	6 SCHMITT TRIGGERS	0.134	0.122	0.107	0.099

CMOS 4000 series SMD

		1-4	5-24	25-99	100+
4001 SMD	4x2 INP NOR	0.112	0.102	0.090	0.083
4007 SMD	COMPL.PAIR+INV	0.126	0.115	0.101	0.094
4011 SMD	4x2 INP NAND	0.082	0.075	0.066	0.061
4013 SMD	2D FLIP-FLOP	0.122	0.111	0.098	0.091
4017 SMD	5 STAGE JOHNSON DECADE COUNTER	0.179	0.163	0.143	0.132
4023 SMD	3x3 INP NAND	0.149	0.135	0.119	0.110
4024 SMD	7-STAGE BINARY/RIPPLE COUNTER	0.228	0.208	0.182	0.169
4040 SMD	12-STAGE BINARY/RIPPLE COUNTER	0.149	0.136	0.119	0.110
4049 SMD	6 INVERTING BUFFER/CONVERTER	0.138	0.126	0.110	0.102
4050 SMD	6 NON-INVERTING BUFFER/CONVERTER	0.144	0.131	0.115	0.107
4051 SMD	8-CHANNEL AN. MULTIPLEXER/DEMULITPLEXER	0.158	0.144	0.127	0.117
4052 SMD	2x4-CHANNEL AN. MULTIPLEXER/DEMULITPLEXER	0.180	0.164	0.144	0.133
4053 SMD	3x2-CHANNEL AN. MULTIPLEXER/DEMULITPLEXER	0.188	0.171	0.150	0.139
4060 SMD	14-STAGE COUNTER/DIVIDER AND OSC.	0.159	0.144	0.127	0.117
4066 SMD	4 BILATERAL SWITCH	0.123	0.112	0.098	0.091
4069 SMD	6 INVERTER	0.125	0.113	0.100	0.092
4093 SMD	4x2-INPUT NAND SCHMITT TRIGGER	0.129	0.117	0.103	0.095
4094 SMD	8-STAGE SHIFT-AND-STORE BUS REG	0.162	0.148	0.130	0.120
4511 SMD	BCD TO 7 SEGMENT LATCH-DECODER/DRIVER	0.217	0.198	0.174	0.161
4541 SMD	PROGRAMMABLE TIMER	0.233	0.213	0.187	0.173
40106 SMD	6 SCHMITT TRIGGER	0.129	0.118	0.103	0.096

ICs 74HC Series

		1-4	5-24	25-99	100+
74HC00	4x2-INPUT NAND	0.103	0.094	0.082	0.076
74HC02	4x2-INPUT NOR	0.085	0.077	0.068	0.063
74HC04	6 INVERTER	0.103	0.094	0.082	0.076

ICs 74HC Series

		1-4	5-24	25-99	100+
74HC05	6 INVERTER O.C.	0.123	0.112	0.098	0.091
74HC08	4x2-INP AND	0.116	0.106	0.093	0.086
74HC10	3x3-INP NAND	0.119	0.109	0.096	0.088
74HC11	TRIPLE 3 INPUT AND	0.120	0.109	0.096	0.089
74HC14	6 INVERTING SCHMITT TRIGGER	0.115	0.105	0.092	0.085
74HC30	8-INP NAND	0.120	0.110	0.096	0.089
74HC32	4x2-INP OR	0.103	0.094	0.082	0.076
74HC42	BCD TO DECIMAL DECODER(4 TO 10)	0.248	0.226	0.199	0.184
74HC74	2 D FLIP-FLOP WITH SET AND RESET	0.120	0.110	0.096	0.089
74HC75	4 BISTABLE TRANSPARENT LATCH	0.203	0.185	0.162	0.150
74HC85	4-BIT MAGNITUDE COMPARATOR	0.186	0.170	0.149	0.138
74HC86	4x2-INP EXCLUSIVE OR	0.103	0.094	0.082	0.076
74HC123	2 RETRIGGERABLE MONOSTABLE	0.148	0.135	0.119	0.110
74HC125	4 BUFFERS/LINE DRIVER 3-STATE	0.157	0.143	0.125	0.116
74HC126	4 BUFFERS 3-STATE	0.187	0.171	0.150	0.139
74HC132	4x2-INP NAND SCHMITT TRIGGER	0.153	0.139	0.122	0.113
74HC137	3 TO 8 DEC. W ADDR.LATCHES (INV OUTP)	0.137	0.125	0.109	0.101
74HC138	3-TO-8 LINE DECODER	0.141	0.129	0.113	0.105
74HC139	DUAL 2 TO 4 LINE DECODER	0.194	0.177	0.155	0.144
74HC148	8 TO 3 LINE PRIORITY ENCODER	0.198	0.181	0.159	0.147
74HC151	8-CHANNEL MULTIPLEXER	0.184	0.168	0.147	0.136
74HC154	4-TO-16 LINE DECODER/DEMULTIPLEXER	0.498	0.454	0.399	0.369
74HC157	4x2-INP MULTIPLEXER	0.187	0.170	0.150	0.138
74HC161	PRESETTABLE SYNCHRONOUS BINARY COUNTER	0.202	0.184	0.162	0.150
74HC163	PRESETTABLE SYNCHR.4-BIT DEC/BINARY COUNTER	0.223	0.204	0.179	0.165
74HC164	8-BIT SERIAL-IN/PARALLEL-OUT SHIFT REG	0.193	0.176	0.154	0.143
74HC165	8-BIT PAR.IN/SER. OUT SHIFT REG.	0.173	0.158	0.139	0.128
74HC166	8-BIT PAR.IN/SER. OUT SHIFT REG. W RESET	0.214	0.195	0.171	0.159
74HC174	6 D FLIP-FLOPS WITH RESET	0.187	0.170	0.150	0.138
74HC175	4 D-TYPE FLIP-FLOP WITH CLEAR	0.173	0.157	0.138	0.128
74HC191	REVERSABLE 4 BIT BINARY UP/DOWN COUNTER	0.202	0.184	0.161	0.149
74HC193	SYNCHRONOUS BINARY 4 BIT UP/DOWN COUNTERS	0.278	0.253	0.223	0.206
74HC240	8 INVERTING 3-STATE BUFFER/LINE DRIVER	0.157	0.143	0.126	0.117
74HC238	3-TO-8 LINE DECODER/DEMULITPLEXER	0.200	0.182	0.160	0.148
74HC241	8x3-STATE BUFFER 1 LOW AND 1 HIGH ENABLE INP.	0.201	0.183	0.160	0.149
74HC244	8x3-STATE BUFFER 2 LOW ENABLE INP.	0.175	0.159	0.140	0.130
74HC245	8x3-STATE TRANSCEIVER	0.186	0.169	0.149	0.138
74HC251	8-CHANNEL 3-STATE MULTIPLEXER	0.185	0.168	0.148	0.137
74HC257	4x2-CHANNEL 3-STATE MULTIPLEXER	0.181	0.165	0.144	0.134
74HC259	8-BIT ADDR. LATCH/3-TO-8 LINE DECODER	0.181	0.165	0.145	0.134
74HC273	8 D FLIP-FLOPS WITH CLEAR	0.171	0.156	0.137	0.127
74HC367	HEX BUS LINE DRIVER	0.175	0.159	0.140	0.130
74HC373	8 D-TYPE LATCH 3-STATE	0.171	0.156	0.137	0.126
74HC374	8 D-TYPE FLIP-FLOP 3-STATE	0.171	0.156	0.137	0.126
74HC377	OCTAL D-TYPE FLIP FLOP WITH ENABLE	0.173	0.158	0.139	0.129
74HC390	2x4-BIT DECADE COUNTER	0.219	0.199	0.175	0.162
74HC393	2x4-BIT BINARY COUNTER	0.180	0.164	0.144	0.133
74HC540	OCTAL BUFFER AND LINE DRIVER INVERTED	0.159	0.145	0.127	0.118
74HC541	8x3-STATE BUFFER NON INVERTING	0.187	0.171	0.150	0.139
74HC573	8 D-TYPE TRANSPARENT LATCH 3-STATE	0.164	0.150	0.131	0.122
74HC574	8 D-TYPE EDGE TRIGGERED FLIP-FLOP 3-STATE	0.182	0.166	0.146	0.135
74HC595	8 BIT SERIAL TO PARALLEL/SERIAL SHIFT REGISTER	0.189	0.172	0.151	0.140
74HC597	8-BIT SHIFT REG. WITH INP. FLIP/FLOPS PAR. IN SER. OUT	0.163	0.148	0.130	0.121
74HC688	8-BIT MAGNITUDE COMPARATOR	0.228	0.208	0.183	0.169
74HC4040	12-BIT BINARY COUNTER	0.228	0.208	0.182	0.169
74HC4046	PHASE-LOCKED-LOOP+VCO	0.274	0.249	0.219	0.203
74HC4051	8-CHANNEL AN. MULTIPLEXER/DEMULITPLEXER	0.193	0.176	0.154	0.143
74HC4052	2x4-CHANNEL AN. MULTIPLEXER/DEMULITPLEXER	0.228	0.208	0.182	0.169
74HC4053	3x2-CHANNEL AN.MULTIPLEXER/DEMULITPLEXER	1.831	1.668	1.465	1.356
74HC4060	14-STAGE BINARY COUNTER/OSCILATOR	0.237	0.216	0.190	0.176
74HC4066	4 ANALOG SWITCH	0.132	0.121	0.106	0.098
74HC4094	8-STAGE SHIFT-AND-STORE BUS REG. SER. IN PAR. OUT	0.212	0.193	0.170	0.157
74HC4538	2 PRECISION RETRIGGERABLE MONOST. MULTIVIBRATOR	0.230	0.210	0.184	0.170

IC 74HC series SMD

		1-4	5-24	25-99	100+
74HC00 SMD	4x2-INP NAND	0.100	0.091	0.080	0.074
74HC02 SMD	4x2-INP NOR	0.101	0.092	0.080	0.075
74HC04 SMD	6 INVERTER	0.104	0.095	0.083	0.077
74HC05 SMD	6 INVERTER O.C.	0.110	0.100	0.088	0.081
74HC08 SMD	4x2-INP AND	0.101	0.092	0.081	0.075
74HC10 SMD	3x3-INP NAND	0.110	0.100	0.088	0.081
74HC14 SMD	6 INVERTING SCHMITT TRIGGER	0.111	0.101	0.089	0.082
74HC27 SMD	3x3-INP NOR	0.105	0.095	0.084	0.077
74HC30 SMD	8-INP NAND	0.119	0.109	0.095	0.088
74HC32 SMD	4x2-INP OR	0.100	0.091	0.080	0.074
74HC74 SMD	2 D FLIP-FLOP WITH PRESET AND CLEAR	0.126	0.115	0.101	0.093
74HC85 SMD	4-BIT MAGNITUDE COMPARATOR	0.231	0.210	0.185	0.171
74HC123 SMD	2 RETRIGGERABLE MONOSTABLE	0.165	0.151	0.132	0.123
74HC125 SMD	4 BUFFERS/LINE DRIVER 3-STATE	0.152	0.138	0.121	0.112
74HC126 SMD	4 BUFFERS 3-STATE	0.167	0.153	0.134	0.124
74HC132 SMD	4x2-INP NAND SCHMITT TRIGGER	0.138	0.126	0.110	0.102

IC 74HC series SMD

		1-4	5-24	25-99	100+
74HC138 SMD	3-TO-8 LINE DECODER	0.138	0.126	0.110	0.102
74HC139 SMD	DUAL 2-TO-4 LINE DECODER	0.153	0.140	0.123	0.113
74HC154 SMD	4-TO-16 LINE DECODER/DEMUTIPLEXER	0.346	0.315	0.277	0.256
74HC157 SMD	4x2-INP MULTIPLEXER	0.165	0.150	0.132	0.122
74HC161 SMD	PRESETABLE SYNCHRONOUS BINARY COUNTER	0.197	0.179	0.157	0.146
74HC164 SMD	8-BIT SERIAL-IN/PARALLEL-OUT SHIFT REG	0.179	0.163	0.143	0.132
74HC165 SMD	8-BIT PAR.IN/SER. OUT SHIFT REG.	0.156	0.142	0.125	0.116
74HC193 SMD	SYNCHRONOUS BINARY UP/DOWN COUNTERS	0.260	0.237	0.208	0.193
74HC244 SMD	8x3-STATE BUFFER	0.156	0.142	0.125	0.116
74HC245 SMD	8x3-STATE TRANSCEIVER	0.172	0.157	0.138	0.127
74HC251 SMD	8-CHANNEL 3-STATE MULTIPLEXER	0.179	0.163	0.143	0.132
74HC273 SMD	8D FLIP-FLOPS WITH CLEAR	0.156	0.142	0.125	0.116
74HC373 SMD	8D-TYPE LATCH 3-STATE	0.156	0.142	0.125	0.116
74HC374 SMD	8D-TYPE FLIP-FLOP 3-STATE	0.167	0.153	0.134	0.124
74HC540 SMD	OCTAL BUFFER AND LINE DRIVER INVERTED	0.147	0.134	0.118	0.109
74HC541 SMD	8 BUFFER/LINE DRIVER 3-STATE	0.174	0.159	0.139	0.129
74HC573 SMD	8D-TYPE LATCH 3-STATE	0.158	0.144	0.127	0.117
74HC574 SMD	8D-TYPE EDGE-TRIGG. FLIP-FLOP 3-STATE	0.156	0.142	0.125	0.116
74HC595 SMD	8 BIT SERIAL TO PARALLEL SHIFT REGISTER	0.181	0.165	0.145	0.134
74HC597 SMD	8-BIT SHIFT REG. WITH INP. FLIP/FLOPS PAR.IN SER.OUT	0.238	0.216	0.190	0.176
74HC4040 SMD	12-BIT BINARY COUNTER	0.215	0.196	0.172	0.159
74HC4046 SMD	PHASE-LOCKED-LOOP+VCO	0.312	0.284	0.250	0.231
74HC4050 SMD	6 NON-INVERTING BUFFER/CONVERTER	0.170	0.155	0.136	0.126
74HC4051 SMD	8-CHANNEL AN. MULTIPLEXER/DEMUTIPLEXER	0.195	0.177	0.156	0.144
74HC4052 SMD	2x4-CHANNEL AN.MULTIPLEXER/DEMUTIPLEXER	0.163	0.148	0.130	0.121
74HC4053 SMD	3x2-CHANNEL AN.MULTIPLEXER/DEMUTIPLEXER	0.188	0.171	0.150	0.139
74HC4060 SMD	14-STAGE BINARY COUNTER	0.233	0.212	0.186	0.173
74HC4066 SMD	4 BILATERAL SWITCH	0.118	0.107	0.094	0.087
74HC4094 SMD	8-STAGE SHIFT-AND-STORE BUS REG	0.190	0.173	0.152	0.141

ICs 74HCT Series

		1-4	5-24	25-99	100+
74HCT00	4x2-INP NAND	0.103	0.094	0.082	0.076
74HCT02	4x2-INP NOR	0.153	0.139	0.122	0.113
74HCT04	6 INVERTER	0.111	0.101	0.089	0.082
74HCT05	6 INVERTER O. C.	0.150	0.137	0.120	0.111
74HCT08	4x2-INP AND	0.120	0.110	0.096	0.089
74HCT10	3x3-INP NAND	0.116	0.105	0.093	0.086
74HCT11	3x3-INP AND	0.089	0.081	0.071	0.066
74HCT14	6 INVERTING SCHMITT TRIGGER	0.120	0.110	0.096	0.089
74HCT30	8-INP NAND	0.176	0.160	0.141	0.130
74HCT32	4x2-INP OR	0.119	0.108	0.095	0.088
74HCT74	2D FLIP-FLOP W PRESET/CLEAR	0.103	0.094	0.082	0.076
74HCT85	4-BIT MAGNITUDE COMPARATOR	0.179	0.163	0.144	0.133
74HCT86	4x2-INP EXCLUSIVE OR	0.160	0.146	0.128	0.119
74HCT123	2 RETRIGGERABLE MONOSTABLE	0.196	0.179	0.157	0.145
74HCT125	4 BUFFERS/LINE DRIVER 3-STATE	0.130	0.118	0.104	0.096
74HCT126	4 BUFFERS 3-STATE	0.176	0.161	0.141	0.131
74HCT132	4x2-INP NAND SCHMITT TRIGGER	0.182	0.166	0.146	0.135
74HCT137	3-TO-8 LINE DEC.W ADDR.LATCHES(INV OUTP)	0.153	0.140	0.123	0.114
74HCT138	3-TO-8 LINE DECODER	0.148	0.135	0.119	0.110
74HCT139	DUAL 2-TO-4 LINE DECODER	0.205	0.187	0.164	0.152
74HCT151	8-CHANNEL MULTIPLEXER	0.160	0.146	0.128	0.118
74HCT157	4x2-INP MULTIPLEXER	0.166	0.152	0.133	0.123
74HCT161	SYNCHRONOUS BINARY COUNTER	0.215	0.196	0.172	0.160
74HCT164	8-BIT SERIAL-IN/PARALLEL-OUT SHIFT REG	0.187	0.171	0.150	0.139
74HCT165	8-BIT PAR.IN/SER. OUT SHIFT REG.	0.215	0.196	0.172	0.159
74HCT166	8-BIT SHIFT REGISTERS WITH FLIP-FLOPS	0.194	0.176	0.155	0.143
74HCT174	6 D FLIP-FLOPS WITH CLEAR	0.176	0.160	0.140	0.130
74HCT193	SYNCHRONOUS BINARY UP/DOWN COUNTERS	0.301	0.274	0.241	0.223
74HCT238	3-TO-8 LINE DECODER/DEMUTIPLEXER	0.237	0.216	0.190	0.176
74HCT240	INVERTING 8x3-STATE BUFFER	0.137	0.125	0.109	0.101
74HCT241	8x3-STATE BUFFER 1 LOW 1 HIGH ACTIVE ENABLE	0.180	0.164	0.144	0.133
74HCT244	8x3-STATE BUFFER 2 LOW ACTIVE ENABLE	0.157	0.143	0.126	0.117
74HCT245	8x3-STATE TRANSCEIVER	0.171	0.156	0.137	0.127
74HCT251	8-CHANNEL 3-STATE MULTIPLEXER	0.217	0.197	0.173	0.160
74HCT257	4x2-CHANNEL 3-STATE MULTIPLEXER	0.249	0.226	0.199	0.184
74HCT259	8-BIT ADDR. LATCH/3-TO-8 LINE DECODER	0.220	0.201	0.176	0.163
74HCT273	8D FLIP-FLOPS WITH CLEAR	0.221	0.202	0.177	0.164
74HCT367	HEX BUS DRIVER	0.331	0.301	0.264	0.245
74HCT373	8D-TYPE LATCH 3-STATE	0.162	0.148	0.130	0.120
74HCT374	8D-TYPE FLIP-FLOP 3-STATE	0.164	0.150	0.131	0.122
74HCT377	OCTAL D-TYPE FLIP FLOP WITH ENABLE	0.221	0.201	0.177	0.164
74HCT541	8x3-STATE BUFFER	0.239	0.218	0.191	0.177
74HCT573	8D-TYPE LATCH 3-STATE	0.187	0.171	0.150	0.139
74HCT574	3-STATE 8 D-TYPE EDGE-TRIGG.FLIP-FLOP	0.197	0.180	0.158	0.146
74HCT597	8-BIT SHIFT REGISTERS WITH FLIP-FLOPS	0.339	0.309	0.271	0.251
74HCT688	8-BIT MAGNITUDE COMPARATOR	0.280	0.256	0.224	0.208
74HCT4053	3x2-CHANNEL AN.MULTIPLEXER/DEMUTIPLEXER	0.163	0.148	0.130	0.121
74HCT4066	4 ANALOG SWITCH	0.188	0.172	0.151	0.140
74HCT4094	8-STAGE SHIFT-AND-STORE BUS REG	0.235	0.214	0.188	0.174

IC 74HCT series SMD

		1-4	5-24	25-99	100+
74HCT00 SMD	4x2-INP NAND	0.097	0.088	0.077	0.072
74HCT02 SMD	4x2-INP NOR	0.107	0.097	0.085	0.079
74HCT04 SMD	6 INVERTER	0.097	0.088	0.077	0.072
74HCT05 SMD	6 INVERTER O.C.	0.186	0.170	0.149	0.138
74HCT08 SMD	4x2-INP AND	0.091	0.083	0.073	0.068
74HCT10 SMD	3x3-INP NAND	0.141	0.128	0.113	0.104
74HCT14 SMD	6 INVERTING SCHMITT TRIGGER	0.098	0.090	0.079	0.073
74HCT32 SMD	4x2-INP OR	0.097	0.089	0.078	0.072
74HCT74 SMD	2D FLIP-FLOP W/PRESET/CLEAR	0.106	0.097	0.085	0.079
74HCT125 SMD	4 BUFFERS/LINE DRIVER 3-STATE	0.163	0.148	0.130	0.121
74HCT126 SMD	4 BUFFERS 3-STATE	0.128	0.116	0.102	0.094
74HCT132 SMD	4x2-INP NAND SCHMITT TRIGGER	0.119	0.109	0.095	0.088
74HCT138 SMD	3-TO-8 LINE DECODER	0.143	0.130	0.114	0.106
74HCT139 SMD	2x2-TO-4 LINE DECODER	0.179	0.163	0.143	0.133
74HCT151 SMD	8-CHANNEL MULTIPLEXER	0.209	0.190	0.167	0.155
74HCT164 SMD	8-BIT SERIAL-IN/PARALLEL-OUT SHIFT REG	0.181	0.165	0.145	0.134
74HCT165 SMD	8-BIT PAR.IN/SER. OUT SHIFT REG.	0.174	0.159	0.139	0.129
74HCT245 SMD	8x3-STATE TRANSCEIVER	0.179	0.163	0.143	0.132
74HCT244 SMD	8x3-STATE BUFFER 2 ACTIVE LOW ENABLES	0.185	0.169	0.148	0.137
74HCT251 SMD	8-CHANNEL 3-STATE MULTIPLEXER	0.199	0.181	0.159	0.147
74HCT273 SMD	8 D FLIP-FLOPS WITH CLEAR	0.128	0.117	0.103	0.095
74HCT373 SMD	8 D-TYPE LATCH 3-STATE	0.155	0.141	0.124	0.114
74HCT374 SMD	8 D-TYPE FLIP-FLOP 3-STATE	0.166	0.151	0.133	0.123
74HCT541 SMD	8x3-STATE BUFFER	0.202	0.184	0.161	0.149
74HCT573 SMD	8 D-TYPE LATCH 3-STATE	0.156	0.142	0.125	0.116
74HCT574 SMD	8 D-TYPE EDGE-TRIGG.FLIP-FLOP 3-STATE	0.152	0.138	0.121	0.112
74HCT597 SMD	8-BIT SHIFT REGISTERS WITH FLIP-FLOPS	0.219	0.200	0.175	0.162
74HCT4052 SMD	2x4-CHANNEL AN.MUX/DEMUX	0.181	0.165	0.144	0.134
74HCT4053 SMD	3x2-CHANNEL AN.MUX/DEMUX	0.215	0.196	0.172	0.159
74HCT4066 SMD	4 BILATERAL SWITCH	0.161	0.146	0.129	0.119
74HCT4094 SMD	8-STAGE SHIFT-AND-STORE BUS REG	0.215	0.196	0.172	0.159

TTL Standard Series

		1-4	5-24	25-99	100+
7406	HEX INVERTER/BUFFER 30 V O/P O.C.	0.304	0.277	0.243	0.225
7407	HEX BUFFER 30 V O/P O.C.	0.276	0.252	0.221	0.205
7407 SMD	HEX BUFFER 30 V O/P O.C.	0.273	0.249	0.218	0.202

TTL IC - LS Series

		1-4	5-24	25-99	100+
74LS00	QUAD 2 INPUT NAND	0.170	0.155	0.136	0.126
74LS02	QUAD 2 INPUT NOR	0.203	0.185	0.162	0.150
74LS04	HEX INVERTER	0.214	0.195	0.171	0.159
74LS05	HEX INVERTER O.C. HIGH VOLTAGE	0.227	0.207	0.181	0.168
74LS06	HEX INVERTER/BUFFER 30 V O.C.	0.235	0.214	0.188	0.174
74LS07	HEX BUFFER 30 V O.C.	0.367	0.334	0.294	0.272
74LS08	QUAD 2 INPUT AND	0.250	0.228	0.200	0.185
74LS10	TRIPLE 3 INPUT NAND	0.109	0.099	0.087	0.081
74LS14	HEX INVERTER SCHMITT	0.196	0.179	0.157	0.145
74LS32	QUAD 2 INPUT OR	0.241	0.219	0.193	0.178
74LS38	QUAD 2 INPUT NAND BUFFER O.C.	0.167	0.152	0.133	0.123
74LS42	BCD DECIMAL DECODER	0.486	0.443	0.389	0.360
74LS47	BCD SEVEN SEGMENT DECODER O.C.	0.687	0.626	0.549	0.509
74LS74	DUAL D-TYPE FLIP FLOP	0.285	0.260	0.228	0.211
74LS90	DECade COUNTER	0.362	0.330	0.289	0.268
74LS93	4 BIT BINARY COUNTER	0.413	0.376	0.330	0.306
74LS123	DUAL MONOSTABLE MULTIVIBRATOR	0.412	0.376	0.330	0.305
74LS125	QUAD BUFFER/LINE DRIVER 3-STATE	0.180	0.164	0.144	0.134
74LS132	QUAD 2 INPUT NAND SCHMITT	0.169	0.154	0.135	0.125
74LS138	3 LINE TO 8 DECODER/DEMUTIPLEXER	0.287	0.262	0.230	0.213
74LS139	DUAL 2 LINE TO 4 LINE DECODER/DEMUTIPLEXER	0.241	0.219	0.193	0.178
74LS145	BCD DECIMAL DECODER/DRIVER 15 V O/P	0.304	0.277	0.244	0.226
74LS151	8 CHANNEL MULTIPLEXER	0.320	0.292	0.256	0.237
74LS155	DUAL 2 TO 4 LINE DECODER	0.280	0.255	0.224	0.207
74LS163	SYNCHRONOUS BINARY COUNTER SYNC.	0.195	0.178	0.156	0.145
74LS164	8 BIT SHIFT REGISTER SER.IN PAR. OUT	0.316	0.288	0.253	0.234
74LS173	QUAD 3 STATE LATCH	0.399	0.364	0.319	0.296
74LS193	SYNC UP/DOWN DUAL CLK COUNTER	0.315	0.287	0.252	0.233
74LS194	4 BIT BIDIR. UNIV. SHIFT REG.	0.495	0.451	0.396	0.367
74LS221	DUAL MONOSTABLE MULTIVIBRATORS SCHMITT	0.361	0.329	0.289	0.268
74LS241	OCTAL BUFFER NON INVERTED 3 STATE	0.354	0.322	0.283	0.262
74LS244	OCTAL 3 STATE DRIVER	0.356	0.324	0.285	0.264
74LS245	OCTAL 3 STATE BUS TRANSCEIVER	0.416	0.379	0.333	0.308
74LS247	BCD SEVEN SEGMENT DECODER O.C.	0.690	0.629	0.552	0.511
74LS257	QUAD 2 TO 1 LINE SELECTOR 3 ST. NON INV	0.251	0.228	0.200	0.186
74LS258	QUAD 2 TO 1 LINE SELECTOR 3 STATE INV	0.343	0.312	0.274	0.254
74LS273	OCTAL D-TYPE FLIP FLOP WITH CLEAR	0.288	0.263	0.231	0.214
74LS373	OCTAL TRANSPARENT LATCH	0.263	0.239	0.210	0.195
74LS07 SMD	HEX BUFFER 30 V O/P O.C.	0.461	0.420	0.369	0.342

EPROMs

			1-4	5-24	25-99	100+
27C256-100/120	DIP28	32k x 8 100/120ns	1.811	1.610	1.476	1.341
27C256-120 OTP	DIP28	32k x 8 100/120ns OTP	1.512	1.344	1.232	1.120
27C512-100/120	DIP28	64k x 8 100/120ns	1.893	1.683	1.542	1.402
27C512 PLCC OTP	PLCC32	64k x 8 OTP	1.247	1.108	1.016	0.923
27C010-100/120	DIP32	128k x 8 100/120ns	2.521	2.241	2.054	1.867
27C010 PLCC OTP	PLCC32	128k x 8 OTP	1.292	1.149	1.053	0.957
27C020-100/120	DIP32	256k x 8 100/120ns	3.970	3.529	3.235	2.941
27C020 PLCC OTP	PLCC32	256k x 8 OTP	1.976	1.757	1.610	1.464
27C040-100/120	DIP32	512k x 8 100/120ns	5.487	4.878	4.471	4.065
27C040-12PC PDIP OTP	DIP32	512k x 8 120ns OTP	2.571	2.285	2.095	1.904
27C080-100/120	DIP32	1024k x 8 100/120ns	7.244	6.439	5.902	5.366

EEPROMs - I2C BUS

			1-24	25-99	100-499	500+
24C02	DIP8	EEPROM 2K I2C bus	0.223	0.203	0.172	0.160
24C02 SMD	SO8	EEPROM 2K I2C bus	0.223	0.203	0.172	0.160
24C04	DIP8	EEPROM 4K I2C bus	0.233	0.211	0.180	0.166
24C04 SMD	SO8	EEPROM 4K I2C bus	0.247	0.224	0.190	0.176
24C08	DIP8	EEPROM 8K I2C bus	0.298	0.270	0.230	0.213
24C08 SMD	SO8	EEPROM 8K I2C bus	0.272	0.247	0.210	0.194
24C16	DIP8	EEPROM 16K I2C bus	0.307	0.279	0.237	0.219
24C16 SMD	SO8	EEPROM 16K I2C bus	0.321	0.291	0.248	0.229
24C32	DIP8	EEPROM 32K I2C bus	0.466	0.422	0.359	0.333
24C32 SMD	SO8	EEPROM 32K I2C bus	0.465	0.422	0.359	0.332
24C64	DIP8	EEPROM 64K I2C bus	0.596	0.541	0.460	0.426
24C256	DIP8	EEPROM 256K, 32K X 8 I2C bus	1.124	1.020	0.867	0.803

EEPROMs - I2C BUS MICROCHIP

			1-24	25-99	100-499	500+
24LC00-I/P	DIP8	128 bit, 16x8, 4ms, 400kHz, 2.5-6V, 1M ER/WR	0.256	0.225	0.213	0.204
24LC00-I/SN SMD	NS08	128 bit, 16x8, 4ms, 400kHz, 2.5-6V, 1M ER/WR	0.277	0.244	0.230	0.221
24LC01B-I/P	DIP8	1K, 128x8, 10mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.293	0.258	0.244	0.234
24LC01B-I/SN SMD	NS08	1K, 128x8, 10mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.309	0.272	0.257	0.247
24LC02B-I/P	DIP8	2K, 256x8, 10mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.358	0.315	0.298	0.287
24LC02B-I/SN SMD	NS08	2K, 256x8, 10mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.391	0.344	0.325	0.313
24LC04B-I/P	DIP8	4K, 512x8, 10mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.391	0.344	0.325	0.313
24LC04B-I/SN SMD	NS08	4K, 512x8, 10mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.407	0.358	0.339	0.326
24LC08B-I/P	DIP8	8K, 1Kx8, 10mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.407	0.358	0.339	0.326
24LC08B-I/SN SMD	NS08	8K, 1Kx8, 10mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.423	0.372	0.352	0.339
24LC16B-I/P	DIP8	16K, 2Kx8, 10mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.456	0.401	0.379	0.365
24LC16B-I/SN SMD	NS08	16K, 2Kx8, 10mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.472	0.415	0.393	0.378
24LC32A-I/P	DIP8	32K, 4Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.619	0.544	0.515	0.495
24LC32A-I/SN SMD	NS08	32K, 4Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.635	0.559	0.528	0.508
24LC64-I/SN SMD	NS08	64K, 8Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.733	0.645	0.609	0.586
24LC65-I/P	DIP8	64K, 8Kx8, 5mS, 400kHz, 2.5-5.5V, 10M ER/WR	1.465	1.289	1.219	1.172
24LC65-I/SM SMD	SO8	64K, 8Kx8, 5mS, 400kHz, 2.5-5.5V, 10M ER/WR	1.498	1.318	1.246	1.198
24LC128-I/P	DIP8	128K, 16Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	1.123	0.988	0.935	0.899
24LC128-I/SM SMD	NS08	128K, 16Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	1.156	1.017	0.962	0.925
24LC256-I/P	DIP8	256K, 32Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	1.628	1.433	1.354	1.302
24LC256-I/SM SMD	NS08	256K, 32Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	1.644	1.447	1.368	1.315
24LC256-I/SM SMD	SO8	256K, 32Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	1.660	1.461	1.382	1.328
24LC512-I/MF SMD	QFN	512K, 64Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	2.735	2.407	2.275	2.188
24LC512-I/P	DIP8	512K, 64Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	2.474	2.178	2.059	1.980
24LC512-I/SM SMD	SO8	512K, 64Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	2.523	2.221	2.099	2.019
24LC515-I/P	DIP8	512K, 64Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	2.735	2.407	2.275	2.188
24LC515-I/SM SMD	SO8	512K, 64Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	2.767	2.435	2.303	2.214

EEPROMs - I2C BUS ROHM

			1-24	25-99	100-499	500+
24L02 BR24L02-W	DIP8	2K 256x8 5mS 400kHz 1.8-5.5V 1M ER/WR	0.270	0.238	0.225	0.216
24L02 BR24L02F-WE2	SO8	2K 256x8 5mS 400kHz 1.8-5.5V 1M ER/WR	0.217	0.191	0.181	0.174
24L04 BR24L04-W	DIP8	4K 512x8 5mS 400kHz 1.8-5.5V 1M ER/WR	0.308	0.271	0.256	0.246
24L04 BR24L04F-WE2	SO8	4K 512x8 5mS 400kHz 1.8-5.5V 1M ER/WR	0.246	0.216	0.205	0.197
24L08 BR24L08-W	DIP8	8K 1Kx8 5mS 400kHz 1.8-5.5V 1M ER/WR	0.319	0.281	0.265	0.255
24L08 BR24L08F-WE2	SO8	8K 1Kx8 5mS 400kHz 1.8-5.5V 1M ER/WR	0.260	0.229	0.217	0.208
24L16 BR24L16-W	DIP8	16K 2Kx8 5mS 400kHz 1.8-5.5V 1M ER/WR	0.377	0.332	0.313	0.301
24L16 BR24L16F-WE2	SO8	16K 2Kx8 5mS 400kHz 1.8-5.5V 1M ER/WR	0.289	0.255	0.241	0.231
24L32 BR24L32-W	DIP8	32K 4Kx8 5mS 400kHz 1.8-5.5V 1M ER/WR	0.592	0.521	0.492	0.473
24L32 BR24L32F-WE2	SO8	32K 4Kx8 5mS 400kHz 1.8-5.5V 1M ER/WR	0.434	0.382	0.361	0.347
24L64 BR24L64-W	DIP8	64K 8Kx8 5mS 400kHz 1.8-5.5V 1M ER/WR	0.740	0.652	0.616	0.592
24L64 BR24L64F-WE2	SO8	64K 8Kx8 5mS 400kHz 1.8-5.5V 1M ER/WR	0.590	0.519	0.491	0.472

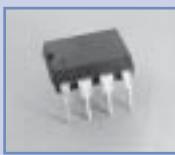
EEPROMs - MICROWIRE BUS

			1-24	25-99	100-499	500+
93C46	DIP8	1k 64x16,2ms, 1MHz,5V±10%, 1M ER/WR, MW bus	0.208	0.181	0.168	0.160
93C46 SMD	SO8	1k 64x16,2ms, 1MHz,5V±10%, 1M ER/WR, MW bus	0.206	0.179	0.166	0.158
93C56	DIP8	2k 128x16 256x8, 2ms,2MHz,4.5-5.5V, 1M ER/WR, MW bus	0.275	0.239	0.222	0.211
93C66	DIP8	4k 256x16 512x8, 2ms,2MHz,4.5-5.5V, 1M ER/WR, MW bus	0.309	0.269	0.249	0.238

EEPROMs - MICROWIRE BUS MICROCHIP

			1-24	25-99	100-499	500+
93LC46-I/P	DIP8	1K 128x8 OR 64x16 6mS 2MHz 2-6V, 1M ER/WR MW bus	0.432	0.375	0.349	0.332
93LC46-I/SM SMD	NS08	1K 128x8 OR 64x16 6mS 2MHz 2-6V, 1M ER/WR MW bus	0.465	0.404	0.376	0.358
93LC46B-I/P	DIP8	1K 64x16 6mS 2MHz 2?6V, 1M ER/WR MW bus	0.316	0.274	0.255	0.243
93LC46B-I/SM SMD	NS08	1K 64x16 6mS 2MHz 2?6V, 1M ER/WR MW bus	0.332	0.289	0.268	0.256
93LC66-I/P	DIP8	4K 512x8 OR 256x16 16mS 2MHz 2?6V, 1M ER/WR MW bus	0.531	0.462	0.429	0.409

EEPROMs - MICROWIRE BUS MICROCHIP			1-24	25-99	100-499	500+
93LC66-I/SN SMD	NS08	4K 512x8 OR 256x16 6mS 2MHz 2-6V, 1M ER/WR MW bus	0.548	0.476	0.443	0.422
93LC66B-/P	DIP8	4K 256x16 6mS 2MHz 2-6V, 1M ER/WR MW bus	0.415	0.361	0.335	0.319
93LC66B-/I/SN SMD	NS08	4K 256x16 6mS 2MHz 2-6V, 1M ER/WR MW bus	0.432	0.375	0.349	0.332
93LC86/P	DIP8	16K 1024x16 6mS 2MHz 2-6V, 1M ER/WR MW bus	0.814	0.707	0.657	0.626
93LC86-I/P	DIP8	16K 1024x16 6mS 2MHz 2-6V, 1M ER/WR MW bus	0.814	0.707	0.657	0.626
EEPROMs - SPI BUS			1-24	25-99	100-499	500+
25C080-I/P	DIP8	8K, 1Kx8, 5ms, 3MHz, 4.5-5.5V, 1M ER/WR	0.785	0.691	0.653	0.628
25C160-I/P	DIP8	16K, 2Kx8, 5ms, 3MHz, 4.5-5.5V, 1M ER/WR	0.821	0.723	0.683	0.657
25C320-I/P	DIP8	32K, 4Kx8, 5ms, 3MHz, 4.5-5.5V, 1M ER/WR	1.083	0.953	0.901	0.867
25C320-/I/SN SMD	NS08	32K, 4Kx8, 5ms, 3MHz, 4.5-5.5V, 1M ER/WR	1.091	0.961	0.908	0.873
25LC320-I/SN SMD	NS08	32K, 4Kx8, 5ms, 3MHz, 4.5-5.5V, 1M ER/WR	0.857	0.754	0.713	0.685
25LC640-I/SN SMD	NS08	64K, 4Kx8, 5ms, 3MHz, 4.5-5.5V, 1M ER/WR	0.875	0.770	0.728	0.700
FLASH			1-4	5-24	25-99	100+
45DB041B-SU	SO8	4Mbit (2048x256byte) Flash data memory, SPI, 2.7V	2.285	1.926	1.796	1.632
GAL			1-4	5-24	25-99	100+
GAL16V8D-25LP	DIP20	64x32 AND $F_{max}=250MHz$, 3.5ns delay, $I_{cc}=90mA$	0.962	0.810	0.755	0.687
GAL20V8B-25LP	DIP24	64x40 AND ARREY $F_{max}=166MHz$, 5ns delay, $I_{cc}=90mA$	1.232	1.038	0.968	0.880
GAL22V10D-25LP	DIP24	132x44 AND ARREY $F_{max}=250MHz$, 4ns delay, $I_{cc}=90mA$	1.812	1.527	1.424	1.294
STATIC RAMs			1-4	5-24	25-99	100+
6116LP-70	DIP24	SRAM 2Kx8 70ns Low Power	1.693	1.427	1.330	1.209
6264LP-70	DIP28	SRAM 8Kx8 70ns Low Power	1.237	1.042	0.972	0.883
62256LP-70	DIP28	SRAM 32Kx8 70ns Low Power	1.665	1.404	1.308	1.190
628128LP-70	DIP32	SRAM 128Kx8 70ns Low Power	2.569	2.165	2.018	1.835
6264LP-70 SMD	SO28	SRAM 8K x 8 Low Power	1.402	1.182	1.102	1.002
62256LP-70 SMD	SO28	SRAM 32K x 8 Low Power	1.767	1.489	1.388	1.262
628128LP-70 SMD	SO32	SRAM 128K x 8 Low Power	2.107	1.776	1.656	1.505
624096LP-55 SMD	SO32	SRAM 512K x 8 Low Power	4.365	3.679	3.430	3.118
DS1220AD-200	DIP24	NV SRAM 2Kx8 200ns 4.5 to 5.5V	13.093	12.142	11.298	10.559
DS1225AB-200IND	DIP28	NV SRAM 8Kx8 200ns 4.75 to 5.25V -40 to +85°C	16.699	15.487	14.409	13.467
DS1245AB-120	DIP32	NV SRAM 128Kx8 120ns 4.75 to 5.25V	28.349	26.291	24.462	22.862
DS1245Y-120	DIP32	NV SRAM 128Kx8 120ns 4.5 to 5.5V	28.349	26.291	24.462	22.862
DS32KHZ/DIP	DIP14	32.768kHz Temp.-Compensated Crystal Oscillator	7.692	7.134	6.638	6.204
DS32KHZN/DIP	DIP14	32.768kHz Temp.-Compensated Crystal Oscillator, IND.TEMP	8.835	8.194	7.624	7.125
Microcontrollers RABBIT SEMICONDUCTORS			1+			
RCM3600 CORE		Rabbit3000-22.1MHz+FLASH512K+SRAM512K+TCP/IPhardw.	57.063			
RCM3610 CORE		Rabbit3000-22.1MHz+FLASH256K+SRAM128K+TCP/IPhardw.	51.569			
RCM3700 CORE	EW	Rabbit3000-22.1MHz+FLASH512K+SRAM512K+TCP/IPhardw.	67.876			
RCM3720 CORE	EW	Rabbit3000-22.1MHz+FLASH512K+SRAM256K+Ethernet	65.237			
Microcontrollers 68HC series			1-24	25-99	100+	
MC68HC11A1FN/TMP68HC11A1T		512EEprom, 256 RAM, 3MHz, 16Bit timer, 8bit ADC	8.715	7.710	6.704	
MC68HC11F1CFN4	PLCC88	512EEprom, 1K RAM, 4MHz, 16bit timer, 8bit ADC	13.226	11.700	10.174	
Microcontrollers 8080 series			1-24	25-99	100+	500+
80C31	DIP40	ROMless 128 RAM, 33MHz, Addresses up to 64k,	1.298	1.163	1.121	1.038
82C55	DIP40	ROMless 5MHz, 24pins	2.019	1.879	1.755	1.553
P80C552IBA/08	PLCC68	ROMless, 256RAM, 2x8bit PWM, 3x16bit TMR, 6x8bit ports, ADC	10.003	8.919	8.336	
Microcontrollers Atmel			1-24	25-99	100+	500+
89C51	DIP40	MCU 4k FLASH 128 RAM 32/I/O 2TMR	2.282	2.019	1.756	
89C51 PLCC	PLCC44	MCU 4k FLASH 128RAM 32/I/O 2TMR	1.810	1.601	1.392	
89C52	DIP40	obsolete	2.271	2.019	1.851	1.682
89C52 PLCC	PLCC44	MCU 8kFLASH 256 RAM 32/I/O 3TMR 33MHz	2.164	1.914	1.665	
89S52	DIP40	MCU 8kFLASH 256 RAM 32/I/O 3TMR 33MHz	1.436	1.277	1.170	1.064
89S52 PLCC	PLCC44	MCU 8kFLASH 256 RAM 32/I/O 3TMR 33MHz	1.373	1.214	1.056	
89C55WD	DIP40	20k FLASH 256 RAM 32/I/O Watchdog 3TMR 33MHz	2.467	2.183	1.898	
89C2051	DIP20	MCU 2k FLASH, 128RAM, 15 I/O, 24MHz, 2,7-6V, 2 16bit TMR	1.141	1.014	0.930	0.845
89C2051 SMD	SO20	MCU 2k FLASH, 128RAM, 15 I/O, 24MHz, 2,7-6V, 2 16bit TMR	1.646	1.456	1.266	
89C4051	DIP20	MCU 4k FLASH, 128RAM, 15 I/O, 24MHz, 2,7-6V, 2 16bit TMR	1.942	1.718	1.494	
ATMEGA128-16AU NEW	TQFP64	8-bit AVR MCU, 128k Flash, 4kB E2, 4kB RAM, 6 PWM, 16MIPS	10.235	9.054	7.873	
ATMEGA16-16AU NEW	TQFP44	8bit AVR MCU, 16kB Flash, 512B E2, 1kB RAM, 2.7-5.5V	4.695			
ATMEGA162-16AU NEW	TQFP44	8bit AVR MCU, 16kB Flash, 512B E2, 1kB RAM, 1.8-5.5V	4.070	3.601	3.131	
Microcontrollers - others			1+			
MSP430F1121IDW NEW		16-bit MCU, 4kB FLASH, 256B RAM, Comparator	4.441			
MSP430F1232IDW NEW		16-bit MCU, 8kB FLASH, 256B RAM, SPI/UART, 10b ADC	5.162			
MSP430F1491PM NEW		16-bit MCU, 60kB FLASH, 2048B RAM, 2xSPI/UART	12.493			
LPC2138FBD64151 NEW		32-bit ARM7, 512kB FLASH, 32kB RAM, 7 PWM, 10b ADC/DAC	13.197			
Microcontrollers DALLAS/MAXIM			1-4	25-99	100+	
DS80C320-QCG	PLCC44	MCU ROMless 33MHz ,256 RAM, PLCC44 3TMR	14.559	13.502	12.563	11.741
DS89C420-MCL	DIP 40	MCU 33MHz, 16kFlash, 1k RAM, 3x16bit TMR, 4,5-5,5V	14.322	13.283	12.359	11.550
DS80C400-FNY	LQFP100	MCU 33MHz 1k RAM, 4x16bit TMR, 10/100 Ethernet, 1,8/3,3V	19.445	18.034	16.779	15.682

Microchip
PIC Microcontrollers


DIP8 - 8-Lead DIP "P"

NSO8 / SO8 - 8-Lead SOIC (EIA
.150) "SN" (.208) "SM"WCDIP8 - 8-Lead
CERDIP "JW"

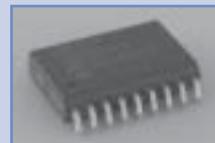
PIC10F200-I/P	DIP8	0.375K FLASH,16 RAM,4/I/O TMR
PIC10F200T-I/OT	SOT23-6	0.375K FLASH,16 RAM,4/I/O TMR
PIC10F202-I/P	DIP8	0.75K FLASH,24 RAM,4/I/O TMR
PIC10F202T-I/OT	SOT23-6	0.75K FLASH,24 RAM,4/I/O TMR
PIC10F204-I/P	DIP8	0.375K FLASH,16RAM,4/I/O TMR,COMP
PIC10F204T-I/OT	SOT23-6	0.375K FLASH,16RAM,4/I/O TMR, COMP
PIC10F206-I/P	DIP8	0.75K FLASH,24RAM,4/I/O TMR, COMP
PIC10F206T-I/OT	SOT23-6	0.75K FLASH,24RAM,4/I/O TMR, COMP

PIC12C508A-04/P	DIP8	0.5K OTP,25 RAM,6/I/O,TMR
PIC12C508A-04/SM	SO8	0.5K OTP,25 RAM,6/I/O,TMR,0.208"
PIC12C508A-04/N	NSO8	0.5K OTP,25 RAM,6/I/O,TMR,0.150"
PIC12C508A-04/P	DIP8	0.5K OTP,25 RAM,6/I/O,TMR
PIC12C508A-04/SM	SO8	0.5K OTP,25 RAM,6/I/O,TMR,0.208"
PIC12C508A-04/SN	NSO8	0.5K OTP,25 RAM,6/I/O,TMR,0.150"
PIC12C508A/JW	WCDIP8	0.5K EPR,25 RAM,6/I/O,TMR
PIC12CE518-04/P	DIP8	0.5K OTP,25 RAM+16E2,6/I/O,TMR
PIC12CE518-04/SM	SO8	0.5K OTP,25 RAM+16E2,6/I/O,TMR,0.208"
PIC12CE518/JW	WCDIP8	0.5K EPR,25 RAM+16E2,6/I/O,TMR
PIC12C509A-04/P	DIP8	1K OTP,41 RAM,6/I/O,TMR
PIC12C509A-04/SM	SO8	1K OTP,41 RAM,6/I/O,TMR,0.208"
PIC12C509A-04/SN	NSO8	1K OTP,41 RAM,6/I/O,TMR,..150"
PIC12C509A-04/P	DIP8	1K OTP,41 RAM,6/I/O,TMR
PIC12C509A/JW	WCDIP8	1K EPR,41 RAM,6/I/O,TMR
PIC12CE519-04/P	DIP8	1K OTP,41 RAM+16E2,6/I/O,TMR
PIC12CE519-04/SM	SO8	1K OTP,41 RAM+16E2,6/I/O,TMR
PIC12CE519/JW	WCDIP8	1K EPR,41 RAM+16E2,6/I/O,TMR
PIC12C672-04/P	DIP8	2K OTP,128 RAM,6/I/O,TMR,4 ADC
PIC12C672/JW	WCDIP8	2K EPR,128 RAM,6/I/O,TMR,4 ADC
PIC12CE674-04/P	DIP8	2K OTP,128 RAM+16E2,6/I/O,TMR,4 ADC
PIC12CE674/JW	WCDIP8	2K EPR,128 RAM+16E2,6/I/O,TMR,4 ADC

PIC12F508-I/P	DIP8	0.75KB Enh Flash, 25 RAM, 6 I/O, TMR Pb Free
PIC12F508-I/SN	NSO8	0.75KB Enh Flash, 25 RAM, 6 I/O, TMR Pb Free
PIC12F509-I/P	DIP8	1.5KB Enh Flash, 41 RAM, 6 I/O, TMR Pb Free
PIC12F509-I/SN	NSO8	1.5KB Enh Flash, 41 RAM, 6 I/O, TMR Pb Free

PIC12F629-I/P	DIP8	1,75KB FLASH, 64 RAM+128E2,6/I/O,TMR
PIC12F629-I/SN	NSO8	1,75KB FLASH, 64 RAM+128E2,6/I/O,TMR
PIC12F675-I/P	DIP8	1,75KB FLASH, 64 RAM+128E2,6/I/O,TMR,4 ADC
PIC12F675-I/SN	NSO8	1,75KB FLASH, 64 RAM+128E2,6/I/O,TMR,4 ADC

PIC12F635-I/P	DIP8	2KB Enh Flash, 64 RAM+128E2, 6/I/O,TMR,KLQ
PIC12F635-I/SN	NSO8	2KB Enh Flash, 64 RAM+128E2, 6/I/O,TMR,KLQ
PIC12F683-I/P	DIP8	3.5KB FLASH, 128RAM+128E2, 6/I/O, TMR,4ADC
PIC12F683-I/SN	NSO8	3.5KB FLASH, 128RAM+128E2, 6/I/O, TMR,4ADC



SO18 - 18-Lead SOIC "SO"



SSOP20 - 20-Lead SOIC "SS"

rfPIC on the base of PIC12C509A and PIC12F675

rfPIC12C509AF/JW	WCDIP20	310-440MHz, ASK/FSK, 1,5KB EPR
rfPIC12C509AF-ISS	SS20	310-440MHz, ASK/FSK, 1,5KB OTP
rfPIC12C509AG/JW	WCDIP18	310-440MHz, ASK, 1,5KB EPR
rfPIC12C509AG-I/SO	SO18	310-440MHz, ASK, 1,5KB OTP
rfPIC12F675F-JSS	SS20	380-450MHz, RF TX ASK/FSK, 1,75KB FLASH
rfPIC12F675H-ISS	SS20	850-930MHz, RF TX ASK/FSK, 1,75KB FLASH
rfPIC12F675K-ISS	SS20	290-350MHz , RF TX ASK/FSK, 1,75KB FLASH
rfrXD0420-I/LQ	LQFP32	315/433 MHz ASK/FSK Receiver
rfrXD0920-I/LQ	LQFP32	868/915 MHz ASK/FSK Receiver

PIC Microcontrollers

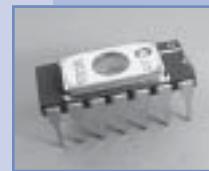
			1-4	5-24	25-99	100+
PIC16C505-04/P	DIP14	1K OTP,72 RAM, 12I/O,TMR-40 +85°C	1.650	1.548	1.307	1.269
PIC16C505-04/SL	NSO14	1K OTP,72 RAM, 12I/O,TMR .150"	1.637	1.537	1.297	1.259
PIC16C505/JW	WCIDIP14	1K EPR,72 RAM, 12I/O,TMR	6.296	0.000		
PIC16F505-I/P	DIP14	1,5KB Flash,72 RAM, 12I/O,TMR-40 +85°C	1.016	0.954	0.805	0.782
PIC16F505-I/SL	NSO14	1,5KB Flash,72 RAM, 12I/O,TMR .150"	0.878	0.824	0.695	0.675
PIC16F630-I/P	DIP14	1,75KB FLASH,72 RAM, 12I/O,TMR .150"	1.519	1.426	1.204	1.169
PIC16F630-I/SL	NSO14	1,75KB FLASH,72 RAM, 12I/O,TMR .150"	1.362	1.278	1.079	1.048
PIC16F636-I/P	DIP14	3,5KB Enh Flash,128RAM+256E2, 12I/O,TMR,KLQ	1.808	1.696	1.432	1.390
PIC16F636-I/SL	NSO14	3,5KB Enh Flash,128RAM+256E2, 12I/O,TMR,KLQ	1.808	1.696	1.432	1.390
PIC16F676-I/P	DIP14	1,75KB FLASH,72 RAM, 12I/O,TMR .150",ADC	1.624	1.524	1.287	1.249
PIC16F676-I/SL	NSO14	1,75KB FLASH,72 RAM, 12I/O,TMR .150",ADC	1.467	1.377	1.162	1.128
PIC16F684-I/P	DIP14	3.5KB FLASH,128 RAM, 12I/O,TMR .150",ADC	1.729	1.623	1.370	1.330
PIC16F684-I/SL	NSO14	3.5KB FLASH,128 RAM, 12I/O,TMR .150",ADC	1.572	1.475	1.245	1.209
PIC16F688-I/P	DIP14	7KB Flash, 256 RAM+256E2, 12 I/O, TMR	1.834	1.721	1.453	1.411
PIC16F688-I/SL	NSO14	7KB Flash, 256 RAM+256E2, 12 I/O, TMR	1.677	1.573	1.328	1.290
PIC16F688-I/ML	QFN16	7K Flash, 256 RAM+256E2, 12 I/O, TMR	1.834	1.721	1.453	1.411



DIP14 - 14-Lead DIP "/P"



NSO14 - 14-Lead SOIC (.150")/SL"

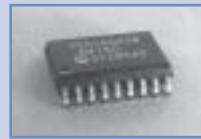


WCIDIP14 - 14-Lead CDIP JW"

			1-4	5-24	25-99	100+
PIC16C54C-04/P	DIP18	0.5K OTP,25 RAM, 12I/O,TMR	1.834	1.693	1.453	1.411
PIC16C54C-04/P	DIP18	0.5K OTP,25 RAM, 12I/O,TMR	1.834	1.693	1.453	1.411
PIC16C54C-04/SO	SO18	0.5K OTP,25 RAM, 12I/O,TMR	1.873	1.729	1.484	1.441
PIC16C54C-20/P	DIP18	0.5K OTP,25 RAM, 12I/O,TMR	1.964	1.813	1.556	1.511
PIC16C54C-20/P	DIP18	0.5K OTP,25 RAM, 12I/O,TMR	1.964	1.813	1.556	1.511
PIC16C54C/JW	WCIDIP18	0.5K EPR,25 RAM, 12I/O,TMR	6.635			
PIC16F54-I/P	DIP18	0.77K Flash, 25 RAM, 12 I/O,Pb Free TMR	0.803	0.642	0.612	0.594
PIC16F54-I/SO	SO18	0.77K Flash, 25 RAM, 12 I/O,Pb Free TMR	0.721	0.577	0.550	0.534
PIC16C58B-04/P	DIP18	2K OTP,73 RAM, 12I/O,TMR	2.187	2.019	1.733	1.682
PIC16C58B-04/P	DIP18	2K OTP,73 RAM, 12I/O,TMR -40 +85°C	2.410	2.224	1.909	1.854
PIC16C58B/JW	WCIDIP18	2K EPR,73 RAM, 12I/O,TMR	10.366			
PIC16C621A-04/P	DIP18	1K OTP,96RAM, 13I/O,TMR,2CMP,V REF	2.016	1.861	1.598	1.551
PIC16C621A-04/P	DIP18	1K OTP,96RAM, 13I/O,TMR,2CMP,V REF	2.213	2.043	1.753	1.702
PIC16C621A-04/SO	SO18	1K OTP,96RAM, 13I/O,TMR,2CMP,V REF	2.056	1.898	1.629	1.581
PIC16C622A-04/P	DIP18	2K OTP,128RAM, 13I/O,TMR,2CMP,V REF	2.266	2.091	1.795	1.743
PIC16C622A-04/SO	SO18	2K OTP,128RAM, 13I/O,TMR,2CMP,V REF	2.305	2.128	1.826	1.773
PIC16C622A-20/P	DIP18	2K OTP,128RAM, 13I/O,TMR,2CMP,V REF	2.423	2.236	1.919	1.864
PIC16C622A-20/SO	SO18	2K OTP,128RAM, 13I/O,TMR,2CMP,V REF	2.462	2.273	1.951	1.894
PIC16C622A/JW	WCIDIP18	2K EPR,128RAM, 13I/O,TMR,2CMP,V REF	9.630			
PIC16CE625-04/P	DIP18	2K OTP,96RAM+128E2, TMR,2CMP,VREF	3.261	3.010	2.584	2.508
PIC16CE625-20/P	DIP18	2K OTP,96RAM+128E2, TMR,2CMP,VREF	3.483	3.215	2.760	2.680



DIP18 - 18-Lead DIP "/P"



SO18 - 18-Lead SOIC SO"



WCIDIP18 - 18-Lead CERDIP JW"

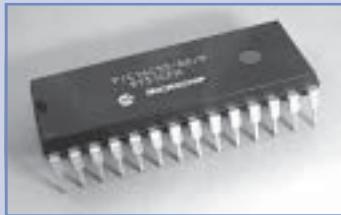
			1-4	5-24	25-99	100+
PIC16C711-04/I/P	DIP18	1K OTP,68RAM, 13I/O,TMR,4CH,A/D	3.528	3.256	2.795	2.714
PIC16C712-04/P	DIP18	1K OTP,128RAM, 13I/O,3TMR,4CH,A/D	2.602	2.401	2.061	2.001
PIC16C712-04/I/P	DIP18	1K OTP,128RAM, 13I/O,3TMR,4CH,A/D	3.094	2.856	2.451	2.380
PIC16C716-20/SO	SO18	2K OTP,128RAM, 13I/O,3TMR,4CH,A/D	3.065	2.830	2.429	2.358
PIC16C716/JW	WCIDIP18	2K EPR,128RAM, 13I/O,3TMR,4CH,A/D	9.266			
PIC16F716-I/P	DIP18	3.5K Flash, 128RAM, 13I/O,3TMR,4CH,A/D	1.258	1.045	0.996	0.967
PIC16F716-I/ISO	SO18	3.5K Flash, 128RAM, 13I/O,3TMR,4CH,A/D	1.153	0.958	0.913	0.887
PIC16C717/P	DIP18	2K OTP,256RAM, 13I/O,3TMR,6CH,A/D	2.699	2.242	2.138	2.076
PIC16C717/JW	WCIDIP18	2K OTP,256RAM, 13I/O,3TMR,6CH,A/D	8.511			
PIC16F627A-I/SS	SSOP20	1,75KB FLASH,224RAM+128E2,16I,O,S/I/O	2.038	1.761	1.679	1.630
PIC16F627A-I/P	DIP18	1,75KB FLASH,224RAM+128E2,16I,O,S/I/O	1.867	1.613	1.539	1.494
PIC16F627A-I/ISO	SO18	1,75KB FLASH,224RAM+128E2,16I,O,S/I/O	1.892	1.635	1.559	1.514
PIC16F628A-I/P	DIP18	3,5KB FLASH,224RAM+128E2,16I,O,TM3,2CMP.,	2.104	1.818	1.734	1.683

PIC Microcontrollers

			1-4	5-24	25-99	100+
PIC16F628A-I/SO	SO18	3,5KB FLASH,224RAM+128E2,16/I/O,TM3,2CMP..,	2.144	1.852	1.767	1.715
PIC16F628A-I/SS	SSOP20	3,5KB FLASH,224RAM+128E2,16/I/O,TM3,2CMP..,	2.329	2.012	1.919	1.863
PIC16F648A-I/P	DIP18	7KB FLASH,224RAM+128E2,16/I/O,TM3,2CMP..,	2.395	2.070	1.974	1.916
PIC16F648A-I/SO	SO18	7KB FLASH,224RAM+128E2,16/I/O,TM3,2CMP..,	2.435	2.104	2.006	1.948
PIC16F648A-I/SS	SSOP20	7KB FLASH,224RAM+128E2,16/I/O,TM3,2CMP..,	2.633	2.275	2.170	2.107
PIC16F84A-04/P	DIP18	1,75KB FLASH,68RAM+64E2,13/I/O,TMR	3.897	3.367	3.211	3.118
PIC16F84A-04/P	DIP18	1,75KB FLASH,68RAM+64E2,13/I/O,TMR	4.248	3.670	3.500	3.398
PIC16F84A-04/SO	SO18	1,75KB FLASH,68RAM+64E2,13/I/O,TMR	3.975	3.434	3.275	3.180
PIC16F84A-04/SO	SO18	1,75KB FLASH,68RAM+64E2,13/I/O,TMR	4.327	3.738	3.565	3.461
PIC16F84A-20/P	DIP18	1,75KB FLASH,68RAM+64E2,13/I/O,TMR	4.128	3.567	3.402	3.303
PIC16F84A-20/P	DIP18	1,75KB FLASH,68RAM+64E2,13/I/O,TMR	4.572	3.950	3.767	3.658
PIC16F84A-20/I/SO	SO18	1,75KB FLASH,68RAM+64E2,13/I/O,TMR	4.639	4.008	3.822	3.711
PIC16F819-I/P	DIP18	3,5KB FLASH, 256RAM, 16/I_O, 3TMR, 5CH, A/D	2.541	2.195	2.094	2.033
PIC16F819-I/SO	SO18	3,5KB FLASH, 256RAM, 16/I_O, 3TMR, 5CH, A/D	2.594	2.241	2.137	2.075
PIC16F819-I/SS	SSOP20	3,5KB FLASH, 256RAM, 16/I_O, 3TMR, 5CH, A/D	2.779	2.401	2.290	2.223
PIC16F87-I/P	DIP18	7KB FLASH,368RAM+256E2,16/I_O,TMR, AUSART	2.938	2.538	2.421	2.350
PIC16F87-I/SO	SO18	7KB FLASH,368RAM+256E2,16/I_O,TMR, AUSART	3.017	2.607	2.486	2.414
PIC16F87-I/ML	QFN28	7KB FLASH,368RAM+256E2,16/I_O,TMR, AUSART	3.017	2.607	2.486	2.414
PIC16F88-I/P	DIP18	7KB FLASH,368RAM+256E2,16/I_O,TMR,ADC,AUSART	3.150	2.721	2.595	2.520
PIC16F88-I/SO	SO18	7KB FLASH,368RAM+256E2,16/I_O,TMR,ADC,AUSART	3.216	2.778	2.650	2.573
PIC18F1220-I/P	DIP18	4KB FLASH,256RAM+256E2,16/I_O,TM5,ADC, EUSART	3.500	3.136	2.884	2.800
PIC18F1220-I/SO	SO18	4KB FLASH,256RAM+256E2,16/I_O,TM5,ADC, EUSART	3.500	3.136	2.884	2.800
PIC18F1220-I/SS	SSOP20	2K FLASH,256RAM+256E2,16/I_O,TM5,ADC, EUSART	3.727	3.339	3.071	2.982
PIC18F1320-I/P	DIP18	8KB FLASH,256RAM+256E2,16/I_O,TM5,ADC, EUSART	3.966	3.554	3.268	3.173
PIC18F1320-I/SO	SO18	8KB FLASH,256RAM+256E2,16/I_O,TM5,ADC, EUSART	3.966	3.554	3.268	3.173
PIC18F1320-I/SS	SSOP20	8KB FLASH,256RAM+256E2,16/I_O,TM5,ADC, EUSART	4.205	3.768	3.465	3.364
PIC18F1320-I/ML	QFN28	8KB FLASH,256RAM+256E2,16/I_O,TM5,ADC, EUSART	4.205	3.768	3.465	3.364
PIC18LF1320-I/ML	QFN28	8KB FLASH,256RAM+256E2,16/I_O,TM5,ADC, EUSART	4.759	4.265	3.922	3.808
PIC18LF1320-I/SS	SO18	8KB FLASH,256RAM+256E2,16/I_O,TM5,ADC, EUSART	4.533	4.061	3.735	3.626
PIC16F639-I/SS <small>NEW</small>	SSOP20	3.5KB Flash, 128 RAM, 12/I/O, KEELOQ CERN	3.099	2.776	2.553	2.479
PIC16F639-I/ML <small>NEW</small>	QFN20	7KB FLASH, 256RAM+256E2, 18/I_O, EUSART	2.167	1.941	1.785	1.733
PIC16F639-I/P <small>NEW</small>	DIP20	7KB FLASH, 256RAM+256E2, 18/I_O, EUSART	2.318	2.077	1.910	1.854
PIC16F639-I/SS <small>NEW</small>	SO20	7KB FLASH, 256RAM+256E2, 18/I_O, EUSART	2.217	1.986	1.827	1.774
PIC16F639-I/SS <small>NEW</small>	SSOP20	7KB FLASH, 256RAM+256E2, 18/I_O, EUSART	1.915	1.715	1.578	1.532
PIC16F639-I/ML <small>NEW</small>	QFN28	7KB FLASH, 256RAM+256E2, 18/I_O, EUSART, ECCP	2.267	2.032	1.868	1.814
PIC16F639-I/P <small>NEW</small>	DIP20	7KB FLASH, 256RAM+256E2, 18/I_O, EUSART, ECCP	2.418	2.167	1.993	1.935
PIC16F639-I/SS <small>NEW</small>	SO20	7KB FLASH, 256RAM+256E2, 18/I_O, EUSART, ECCP	2.318	2.077	1.910	1.854
PIC16F639-I/SS <small>NEW</small>	SSOP20	7KB FLASH, 256RAM+256E2, 18/I_O, EUSART, ECCP	2.015	1.806	1.661	1.612
PIC16C782-I/SO	SO20	2K OTP,256RAM, 16/I_O,TMR,ADC,COMP	4.182	3.613	3.446	3.345
PIC14000-04/SP	SDIP28	4K OTP,192RAM,22/I_O,TMR,ADC,DAC,S/I/O	8.136	7.773	7.482	7.264
PIC16C57C-04/P	DIP28	2K OTP,72 RAM,20/I_O,TMR	2.527	2.264	2.082	2.022
PIC16C57C-04/SO	SO28	2K OTP,72 RAM,20/I_O,TMR	2.620	2.348	2.159	2.096
PIC16C57C-04/SP	SDIP28	2K OTP,72 RAM,20/I_O,TMR	2.507	2.246	2.065	2.005
PIC16C57C-04/P	DIP28	2K OTP,72 RAM,20/I_O,TMR	2.758	2.471	2.273	2.206
PIC16C57C/JW	WCIDIP28	2K EPR,72 RAM,20/I_O,TMR,CDIP28	12.388			
PIC16F57-I/P	DIP28	3KB FLASH,72 RAM,20/I_O,TMR	1.171	1.012	0.965	0.937
PIC16F57-I/SO	SO28	3KB FLASH,72 RAM,20/I_O,TMR	0.970	0.838	0.799	0.776
PIC16F57-I/SP	SDIP28	3KB FLASH,72 RAM,20/I_O,TMR	1.171	1.012	0.965	0.937
PIC16C63A-04/SO	SO28	4K OTP,192RAM,22/I_O,3TMR,SER,I/O,PWM	4.118	3.689	3.393	3.294
PIC16C63A-04/SP	SDIP28	4K OTP,192RAM,22/I_O,3TMR,SER,I/O,PWM	4.118	3.689	3.393	3.294
PIC16C63A/JW	WCIDIP28	4K EPR,192 RAM,22/I_O,3TMR,SER,I/O,PWM	12.185			
PIC16C72A-04/SP	SDIP28	2K OTP,128 RAM,22/I_O,3TMR,5CH,A/D S/I/O	4.004	3.588	3.299	3.203
PIC16C72A-04/SP	SDIP28	2K OTP,128 RAM,22/I_O,3TMR,5CH,A/D S/I/O	4.420	3.960	3.642	3.536
PIC16C72A-04/SO	SO28	2K OTP,128 RAM,22/I_O,3TMR,5CH,A/D S/I/O	4.004	3.588	3.299	3.203
PIC16C73B-04/SP	SDIP28	4K OTP,192 RAM,22/I_O,3TMR,5CH,A/D S/I/O	5.163	4.626	4.254	4.130
PIC16C73B-04/SP	SDIP28	4K OTP,192 RAM,22/I_O,3TMR,5CH,A/D S/I/O	5.679	5.088	4.679	4.543
PIC16C73B-20/SP	SDIP28	4K OTP,192 RAM,22/I_O,3TMR,5CH,A/D S/I/O	5.528	4.953	4.555	4.422
PIC16C73B-20/SO	SO28	4K OTP,192 RAM,22/I_O,3TMR,5CH,A/D S/I/O	5.528	4.953	4.555	4.422
PIC16C73B-20/I/SO	SO28	4K OTP,192 RAM,22/I_O,3TMR,5CH,A/D S/I/O	6.082	5.449	5.011	4.866
PIC16C73B-20/SP	SDIP28	4K OTP,192 RAM,22/I_O,3TMR,5CH,A/D S/I/O	6.082	5.449	5.011	4.866
PIC16C73B-20/SS	SSOP28	4K OTP,192 RAM,22/I_O,3TMR,5CH,A/D S/I/O	6.283	5.630	5.177	5.027
PIC16C73B/JW	WCIDIP28	4K EPR,192 RAM,22/I_O,3TMR,5CH,A/D S/I/O	12.240			
PIC16F73-I/SO	SO28	7KB FLASH,192 RAM,22/I_O,3TMR,5CH,A/D S/I/O	4.118	3.689	3.393	3.294
PIC16F73-I/SP	SDIP28	7KB FLASH,192 RAM,22/I_O,3TMR,5CH,A/D S/I/O	4.118	3.689	3.393	3.294
PIC16F870-I/SP	SDIP28	4KB FLASH,128RAM+64E2,22/I_O,5ADC	3.539	3.171	2.916	2.831
PIC16F870-I/SO	SO28	4KB FLASH,128RAM+64E2,22/I_O,5ADC	3.539	3.171	2.916	2.831
PIC16F870-I/SS	SSOP28	4KB FLASH,128RAM+64E2,22/I_O,5ADC	3.652	3.272	3.009	2.921
PIC16F872-I/SP	SDIP28	4KB FLASH,128RAM+64E2,22/I_O,5ADC	3.539	3.171	2.916	2.831
PIC16F872-I/SO	SO28	4KB FLASH,128RAM+64E2,22/I_O,5ADC	3.539	3.171	2.916	2.831
PIC16F872-IV/SP	SDIP28	4KB FLASH,128RAM+64E2,22/I_O,5ADC	3.727	3.340	3.071	2.982
PIC16F873-04/SO	SO28	7KB FLASH,192RAM+128E2,22/I_O,5ADC	5.452	4.885	4.492	4.361

PIC Microcontrollers

			1-4	5-24	25-99	100+
PIC16F873-04/I/SO	SO28	7KB FLASH,192RAM+128E2,22I/O,5ADC	6.610	5.923	5.447	5.288
PIC16F873A-I/ISO	SO28	7KB FLASH,192RAM+128E2,22I/O,5ADC	5.011	4.490	4.129	4.009
PIC16F873A-I/SP	S DIP28	7KB FLASH,192RAM+128E2,22I/O,5ADC	5.011	4.490	4.129	4.009
PIC16C745-I/SP	SDIP28	8K OTP,256 RAM,22I/O,3TMR,5CH.A/D USB	3.732	3.224	3.075	2.985
PIC16C745/JW	WC DIP28	8K EPR,256 RAM,22I/O,3TMR,5CH.A/D USB	14.232			
PIC16C76-20/SP	SDIP28	8K OTP,368 RAM,22I/O,3TMR,5CH.A/D S.I/O	7.001	6.273	5.769	5.601
PIC16C76/JW	WC DIP28	8K EPR,368 RAM,22I/O,3TMR,5CH.A/D S.I/O	16.275			
PIC16F76-I/SO	SO28	14.3KB FLASH,368 RAM,22I/O,3TMR,5CH.A/D S.I/O	5.163	4.626	4.254	4.130
PIC16F76-I/SP	SDIP28	14.3KB FLASH,368 RAM,22I/O,3TMR,5CH.A/D S.I/O	5.163	4.626	4.254	4.130
PIC16F876A-I/SP	SDIP28	14KB FLASH,368 RAM+256E2,22I/O,5ADC	5.401	4.840	4.451	4.321
PIC16F876A-I/SO	SO28	14KB FLASH,368 RAM+256E2,22I/O,5ADC	5.401	4.840	4.451	4.321
PIC16F876-20/SP	S DIP28	14KB FLASH,368 RAM+256E2,22I/O,5ADC	7.277	6.521	5.997	5.822
PIC16F876-20/I/SP	SO28	14KB FLASH,368 RAM+256E2,22I/O,5ADC	7.277	6.521	5.997	5.822
PIC16F913-I/SO	SO28	7KB FLASH,352 RAM+256E2,25I/O,ADC	2.581	2.230	2.127	2.065
PIC16F913-I/SP	SDIP28	7KB FLASH,352 RAM+256E2,25I/O,ADC	2.833	2.448	2.334	2.266
PIC16F913-I/SS	SSOP28	7KB FLASH,352 RAM+256E2,25I/O,ADC	2.531	2.187	2.085	2.025
PIC16F916-I/SO	SO28	14KB FLASH,352 RAM+256E2,25I/O,ADC	2.896	2.502	2.386	2.317
PIC16F916-I/SP	SDIP28	14KB FLASH,352 RAM+256E2,25I/O,ADC	3.148	2.720	2.594	2.518
PIC16F916-I/SS	SSOP28	14KB FLASH,352 RAM+256E2,25I/O,ADC	2.845	2.458	2.345	2.276



DIP28 - 28-Lead DIP "P"



WC DIP28 - 28-Lead CERDIP "JW"



SDIP28 - 28-Lead Skinny DIP "SP"



SO28 - 28-Lead SOIC "SO"

			1-4	5-24	25-99	100+
PIC18F2220-I/SO	SO28	4KB FLASH,512RAM,25I/O,4TMR,ADC, PWM,AUSART	5.604	5.021	4.618	4.483
PIC18F2220-I/SP	SDIP28	4KB FLASH,512RAM,25I/O,4TMR,ADC, PWM,AUSART	5.604	5.021	4.618	4.483
PIC18F2320-I/SO	SO28	8KB FLASH,512RAM,25I/O,4TMR,ADC, PWM,AUSART	6.070	5.439	5.002	4.856
PIC18F2320-I/SP	SDIP28	8KB FLASH,512RAM,25I/O,4TMR,ADC, PWM,AUSART	6.070	5.439	5.002	4.856
PIC18F2331-I/SO	SO28	8K FLASH,512RAM,25I/O,4TMR,ADC, PWM,AUSART	6.549	5.867	5.396	5.239
PIC18F2331-I/SP	SDIP28	8K FLASH,512RAM,25I/O,4TMR,ADC, PWM,AUSART	6.586	5.901	5.427	5.269
PIC18F242-I/SP	SDIP28	16KB FLASH,768RAM,23I/O,4TMR,ADC,PWM,S. I/O	5.957	5.337	4.908	4.765
PIC18F242-I/SO	SO28	16KB FLASH,768RAM,23I/O,4TMR,ADC,PWM,S. I/O	5.957	5.337	4.908	4.765
PIC18F2420-I/SP	SDIP28	16KB FLASH,768RAM,23I/O,4TMR,ADC,PWM,S. I/O	5.957	5.337	4.908	4.765
PIC18F2420-I/ISO	SO28	16KB FLASH,768RAM,23I/O,4TMR,ADC,PWM,S. I/O	5.768	5.168	4.753	4.614
PIC18F2431-I/SO	SO28	16K FLASH,512RAM,25I/O,4TMR,ADC, PWM,AUSART	6.775	6.071	5.583	5.420
PIC18F2431-I/SP	SDIP28	16K FLASH,512RAM,25I/O,4TMR,ADC, PWM,AUSART	6.813	6.104	5.614	5.450
PIC18F2439-I/SO	SO28	12KB FLASH,640RAM,21I/O,4TMR,ADC, PWM,AUSART	5.957	5.337	4.908	4.765
PIC18F2439-I/SP	SDIP28	12KB FLASH,640RAM,21I/O,4TMR,ADC, PWM,AUSART	5.957	5.337	4.908	4.765
PIC18F248-I/SP	SDIP28	16KB FLASH,768RAM,23I/O,4TMR,ADC,PWM,S. I/O, CAN	7.140	6.398	5.884	5.712
PIC18F252-I/SP	SDIP28	32KB FLASH,1536RAM,23I/O,4TMR,ADC,PWM,S. I/O	6.486	5.811	5.344	5.188
PIC18F252-I/SO	SO28	32KB FLASH,1536RAM,23I/O,4TMR,ADC,PWM,S. I/O	6.486	5.811	5.344	5.188
PIC18F2520-I/SP	SDIP28	32KB FLASH,1536RAM,25I/O,4TMR,ADC,PWM,EUSART	6.435	5.766	5.303	5.148
PIC18LF2520-I/SP	SO28	32KB FLASH,1536RAM,25I/O,4TMR,ADC,PWM,EUSART	6.624	5.935	5.458	5.299
PIC18F2525-I/SP	SO28	48KB FLASH,3804RAM,25I/O,4TMR,ADC,PWM,EUSART	7.040	6.308	5.801	5.632
PIC18F2525-I/SP	SDIP28	48KB FLASH,3804RAM,25I/O,4TMR,ADC,PWM,EUSART	7.292	6.533	6.008	5.833
PIC18F2539-I/SP	SO28	24KB FLASH,1408RAM,21I/O,4TMR,ADC,EUSART	6.486	5.811	5.344	5.188
PIC18F2539-I/SP	SDIP28	24KB FLASH,1408RAM,21I/O,4TMR,ADC,EUSART	6.486	5.811	5.344	5.188
PIC18F2550-I/SP	SO28	32KB Enh Flash, 2048 RAM, 24I/O, ADC,FS-USB 2.0	6.889	6.172	5.676	5.511
PIC18F2550-I/SP	SDIP28	32KB Enh Flash, 2048 RAM, 24I/O, ADC,FS-USB 2.0	6.926	6.206	5.707	5.541
PIC18F2558-I/SP	SO28	32KB FLASH,1536RAM,23I/O,4TMR,ADC,PWM,S. I/O CAN	7.770	6.962	6.403	6.216
PIC18F2558-I/SP	SDIP28	32KB FLASH,1536RAM,23I/O,4TMR,ADC,PWM,S. I/O CAN	7.770	6.962	6.403	6.216
PIC18F2580-I/SP	SO28	32KB FLASH,1536RAM,25I/O,4TMR,ADC,EUSART	7.506	6.725	6.185	6.004

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			1-4	5-24	25-99	100+
PIC18F2580-I/SP	DIP28	32KB FLASH,1536RAM,25I/O,4TMR,ADC, EUSART	7.543	6.759	6.216	6.035
PIC18F25J10-I/ML NEW	SSOP28	32KB SWFLASH,1536RAM,25I/O,4TMR,ADC, EUSART,3V	2.783	2.494	2.293	2.226
PIC18F25J10-I/SS NEW	SO28	32KB SWFLASH,1536RAM,25I/O,4TMR,ADC, EUSART,3V	2.481	2.223	2.044	1.985
PIC18F2620-I/SO	SDIP28	64KB FLASH,3328RAM,25I/O,4TMR,ADC, EUSART	7.720	6.917	6.361	6.176
PIC18F2620-I/SP	DIP28	64KB FLASH,3328RAM,25I/O,4TMR,ADC, EUSART	7.959	7.131	6.558	6.367
PIC18F2680-I/SO	SO28	64KB FLASH,3328RAM,25I/O,4TMR,ADC, EUSART	8.790	7.876	7.243	7.032
PIC18F2680-I/SP	SDIP28	64KB FLASH,3328RAM,25I/O,4TMR,ADC, EUSART	8.954	8.023	7.378	7.163
PIC16C65B-04/P	DIP40	4K OTP,192RAM,33I/O,3TMR,SER/I/O,PWM	4.609	4.129	3.798	3.687
PIC16C65B/JW	WCDIP40	4K EPR,192RAM,33I/O,3TMR,SER/I/O,PWM	13.597			
PIC16C74B-04/P	DIP40	4K OTP,192 RAM,33I/O,3TMR,8CH.A/D S.I/O	6.283	5.630	5.177	5.027
PIC16C74B-04I/P	DIP40	4K OTP,192 RAM,33I/O,3TMR,8CH.A/D S.I/O	6.913	6.194	5.696	5.530
PIC16C74B-20/P	DIP40	4K OTP,192 RAM,33I/O,3TMR,8CH.A/D S.I/O	6.724	6.025	5.541	5.379
PIC16C74B/JW	WCDIP40	4K EPR,192 RAM,33I/O,3TMR,8CH.A/D S.I/O	11.282			
PIC16F74-I/L	PLCC44	7KB FLASH,192 RAM,33I/O,3TMR,8CH.A/D S.I/O	5.868	5.070	4.835	4.694
PIC16F74-I/P	DIP40	7KB FLASH,192 RAM,33I/O,3TMR,8CH.A/D S.I/O	4.999	4.319	4.119	3.999
PIC16F871-I/P	DIP40	4KB FLASH,128RAM+64E2,33I/O,8ADC	3.879	3.351	3.196	3.103
PIC16F874A-I/P	DIP40	7KB FLASH,192RAM+128E2,33I/O,8ADC	5.477	4.732	4.513	4.382
PIC16F874A-I/L	PLCC44	7KB FLASH,192RAM+128E2,33I/O,8ADC	6.446	5.570	5.312	5.157
PIC16C77-04/P	DIP40	8K OTP,368 RAM,33I/O,3TMR,8CH.A/D S.I/O	7.026	6.071	5.790	5.621
PIC16C77-10I/L	PLCC44	8K OTP,368 RAM,33I/O,3TMR,8CH.A/D S.I/O	9.129	7.888	7.523	7.303
PIC16C77-20L	PLCC44	8K OTP,368 RAM,33I/O,3TMR,8CH.A/D S.I/O	8.726	7.540	7.191	6.981
PIC16C77-20P	DIP40	8K OTP,368 RAM,33I/O,3TMR,8CH.A/D S.I/O	7.518	6.495	6.194	6.014
PIC16C77-20I/P	DIP40	8K OTP,368 RAM,33I/O,3TMR,8CH.A/D S.I/O	8.273	7.148	6.817	6.618
PIC16C77-20P/Q	QFP44	8K OTP,368 RAM,33I/O,3TMR,8CH.A/D S.I/O	8.424	7.278	6.942	6.739
PIC16C77/JW	WCDIP40	8K EPR,368 RAM,33I/O,3TMR,8CH.A/D S.I/O	17.384			
PIC16F77-I/L	PLCC44	14KB FLASH,368RAM,33I/O,8ADC	6.711	5.799	5.530	5.369
PIC16F77-I/P	DIP40	14KB FLASH,368RAM,33I/O,8ADC	5.704	4.928	4.700	4.563
PIC16F877-20I/P	DIP40	14KB FLASH,368RAM+256E2,33I/O,8ADC	7.555	6.528	6.225	6.044
PIC16F877A-I/P	DIP40	14KB FLASH,368RAM+256E2,33I/O,8ADC	5.893	5.092	4.856	4.714
PIC16F877A-E/P	DIP40	14KB FLASH,368RAM+256E2,33I/O,8ADC	6.485	5.603	5.344	5.188
PIC16F877A-I/L	PLCC44	14KB FLASH,368RAM+256E2,33I/O,8ADC	6.938	5.995	5.717	5.551
PIC16F877A-I/PT	TQFP44	14KB FLASH,368RAM+256E2,33I/O,8ADC	6.800	5.875	5.603	5.440
PIC16LF877A-I/PT	TQFP44	14KB FLASH,368RAM+256E2,33I/O,8ADC	7.114	6.147	5.862	5.692
PIC16F914-I/P	DIP40	7KB FLASH, 352 RAM, 36I/O, LCD DR	3.438	2.970	2.833	2.750
PIC16F914-I/PT	TQFP44	7KB FLASH, 352 RAM, 36I/O, LCD DR	3.488	3.014	2.874	2.790
PIC16F917-I/P	DIP40	14KB FLASH, 352 RAM, 36I/O, LCD DR	3.903	3.373	3.216	3.123
PIC16F917-I/PT	TQFP44	14KB FLASH, 352 RAM, 36I/O, LCD DR	3.966	3.427	3.268	3.173
PIC17C42A/JW	WCDIP40	2K EPR,232RAM,33I/O,4TMR,PWM	17.282			
PIC17C44-33P	DIP40	8K OTP,454RAM,33I/O,4TMR,PWM,SER I/O	11.886	10.270	9.794	9.509
PIC17C44/JW	WCDIP40	8K EPR,454RAM,33I/O,4TMR,PWM,SER I/O	22.003			
PIC18F4220-I/P	DIP40	4KB FLASH,256EPR, 512RAM,36I/O,4TMR,ADC, AUSART	6.182	5.342	5.094	4.946
PIC18F4220-I/PT	TQFP44	4KB FLASH,256EPR, 512RAM,36I/O,4TMR,ADC, AUSART	7.139	6.168	5.883	5.711
PIC18F4320-I/P	DIP40	8KB FLASH,256EPR, 512RAM,36I/O,4TMR,ADC, AUSART	6.661	5.755	5.488	5.329
PIC18F4320-I/PT	TQFP44	8KB FLASH,256EPR, 512RAM,36I/O,4TMR,ADC, AUSART	7.593	6.560	6.256	6.074
PIC18LF4320-I/ML	QFN44	8KB FLASH,256EPR, 512RAM,36I/O,4TMR,ADC, AUSART	8.235	7.115	6.785	6.588
PIC18F4439-I/P	DIP40	12KB FLASH,256EPR, 640RAM,32I/O,4TMR,ADC, AUSART	6.623	5.722	5.457	5.298



DIP40 - 40-Lead DIP "/P"



WCDIP40 - 40-Lead CERDIP "/JW"



QFP44 - 44-Lead MQFP "/PQ"



TQFP44 - 44-Lead TQFP "/PT"



PLCC44 - 44-Lead PLCC "/L"

PIC Microcontrollers

			1-4	5-24	25-99	100+
PIC18F4439-I/PT	TQFP44	12KB FLASH,256EPR, 640RAM,32/I/O,4TMR,ADC, AUSART	7.655	6.614	6.308	6.124
PIC18F4455-I/P	DIP40	24KB FLASH,256EPR,2048RAM,32/I/O,4TMR,ADC,FS-USB 2.1	7.152	6.179	5.893	5.721
PIC18F4455-I/PT	TQFP44	24KB FLASH,256EPR,2048RAM,32/I/O,4TMR,ADC,FS-USB 2.1	7.353	6.353	6.059	5.883
PIC18F4455T-I/PT	TQFP44	24KB FLASH,256EPR,2048RAM,32/I/O,4TMR,ADC,FS-USB 2.1	7.542	6.516	6.215	6.034
PIC18F4448-I/P	DIP40	16KB FLASH,512RAM,34/I/O,4TMR,ADC,PWM,S. I/O, CAN	7.316	6.321	6.028	5.852
PIC18F4452-I/P	DIP40	32KB FLASH,1536RAM,34/I/O,4TMR,ADC,PWM,S. I/O	7.177	6.201	5.914	5.742
PIC18F4452-I/L	PLCC44	32KB FLASH,1536RAM,34/I/O,4TMR,ADC,PWM,S. I/O	8.348	7.213	6.879	6.678
PIC18F4452-I/PT	TQFP44	32KB FLASH,1536RAM,34/I/O,4TMR,ADC,PWM,S. I/O	8.197	7.082	6.754	6.558
PIC18F44520-I/P	DIP40	32KB FLASH,256EPR, 4804RAM,32/I/O,4TMR,ADC,AUSART	7.290	6.299	6.007	5.832
PIC18F44520-I/PT	TQFP44	32KB FLASH,256EPR, 4804RAM,32/I/O,4TMR,ADC,AUSART	7.341	6.342	6.049	5.873
PIC18F44539-I/P	DIP40	24KB FLASH,256EPR, 1408RAM,32/I/O,4TMR,ADC,AUSART	7.177	6.201	5.914	5.742
PIC18F44539-I/PT	TQFP44	24KB FLASH,256EPR, 1408RAM,32/I/O,4TMR,ADC,AUSART	8.197	7.082	6.754	6.558
PIC18F44550-I/P	DIP40	32KB FLASH,256EPR,2048RAM,32/I/O,4TMR,ADC,FS-USB 2.1	8.021	6.930	6.609	6.416
PIC18F44550-I/PT	TQFP44	32KB FLASH,256EPR,2048RAM,32/I/O,4TMR,ADC,FS-USB 2.1	8.071	6.973	6.650	6.457
PIC18F44550T-I/PT	TQFP44	32KB FLASH,256EPR,2048RAM,32/I/O,4TMR,ADC,FS-USB 2.1	8.272	7.147	6.816	6.618
PIC18F458-I/P	DIP40	32KB FLASH,1536RAM,34/I/O,4TMR,ADC,PWM,S. I/O, CAN	7.882	6.810	6.495	6.306
PIC18F458-I/PT	TQFP44	32KB FLASH,1536RAM,34/I/O,4TMR,ADC,PWM,S. I/O, CAN	8.826	7.626	7.273	7.061
PIC18F4580-I/P	DIP40	32KB FLASH,1536RAM,34/I/O,4TMR,ADC,PWM,S. I/O, CAN	8.209	7.093	6.765	6.568
PIC18F4580-I/PT	TQFP44	32KB FLASH,1536RAM,34/I/O,4TMR,ADC,PWM,S. I/O, CAN	8.247	7.126	6.796	6.598
PIC18F45J10-I/PT	TQFP44	32KB FLASH,1024RAM,32/I/O,4TMR,ADC,AUSART	2.858	2.469	2.355	2.287
PIC18F4620-I/ML	QFN44	64KB FLASH,1024EPR,3804RAM,32/I/O,4TMR,ADC,AUSART	8.902	7.691	7.335	7.122
PIC18F4620-I/P	DIP40	64KB FLASH,1024EPR,3804RAM,32/I/O,4TMR,ADC,AUSART	8.625	7.452	7.107	6.900
PIC18F4620-I/PT	TQFP44	64KB FLASH,1024EPR,3804RAM,32/I/O,4TMR,ADC,AUSART	8.688	7.506	7.159	6.950
PIC18F4680-I/PT	TQFP44	64KB FLASH,1024EPR,3328RAM,32/I/O,4TMR,ADC,AUSART	9.695	8.377	7.989	7.756
PIC18F6490-I/PT	TQFP64	16KB FLASH,768RAM,50/I/O,5TMR,ADC,LCD DRV	5.931	5.125	4.888	4.745
PIC18F6520-I/PT	TQFP64	32KB FLASH,1024EPR,2048RAM,52/I/O,5TMR,ADC,AUSART	8.211	7.094	6.766	6.569
PIC18F6525-I/PT	TQFP64	48KB FLASH,1024EPR,3840RAM,52/I/O,5TMR,ADC,EUSART	9.231	7.975	7.606	7.385
PIC18F6585-I/L	PLCC68	48KB FLASH,1024EPR,3328RAM,52/I/O,4TMR,ADC,EUSART	10.024	8.661	8.260	8.019
PIC18F6585-I/PT	TQFP64	48KB FLASH,1024EPR,3328RAM,52/I/O,4TMR,ADC,EUSART	9.911	8.563	8.167	7.929
PIC18F65J10-I/PT NEW	TQFP64	32KB SWFLASH, 2KRAM,52/I/O,4TMR,ADC, EUSART, 3V	3.828	3.430	3.155	3.063
PIC18F65J15-I/P NEW	TQFP64	32KB SWFLASH, 2KRAM,52/I/O,4TMR,ADC, EUSART, 3V	4.068	3.645	3.352	3.254
PIC18F6620-I/PT	TQFP64	64KB FLASH,1024EPR,3840RAM,52/I/O,5TMR,ADC,AUSART	12.153	10.500	10.014	9.722
PIC18F6621-I/PT	TQFP64	64KB FLASH,1024EPR,3840RAM,52/I/O,5TMR,ADC,EUSART	9.911	8.563	8.167	7.929
PIC18F6680-I/L	PLCC68	64KB FLASH,1024EPR,3840RAM,52/I/O,5TMR,ADC,EUSART	10.906	9.423	8.986	8.725
PIC18F6680-I/PT	TQFP64	64KB FLASH,1024EPR,3840RAM,52/I/O,5TMR,ADC,EUSART	10.629	9.183	8.758	8.503
PIC18F6720-I/PT	TQFP64	128KB FLASH,1024EPR,3840RAM,52/I/O,5TMR,ADC,AUSART	13.513	11.675	11.134	10.810
PIC18LF6720-J/PT	TQFP64	128KB FLASH,1024EPR,3840RAM,52/I/O,5TMR,ADC,AUSART	14.180	12.252	11.684	11.344
PIC18LF6722-I/PT	TQFP64	128KB FLASH,1024EPR,3840RAM,52/I/O,5TMR,ADC,AUSART	11.397	10.212	9.391	9.118
PIC18LF67710-I/PT NEW	TQFP64	128KB SWFLASH,3936RAM,52/I/O,5TMR,ADC,AUSART, 3V	5.277	4.728	4.348	4.221
PIC16C926/CL	WLCLCC68	14K EPR,LCD DRV,3TMR,5CH A/D,PWM,S I/O	30.849			
PIC16F946-I/PT	TQFP64	14KB FLASH,352RAM,5TMR,ADC,LCD DR	3.526	3.047	2.906	2.821
PIC18C801-I/PT	TQFP80	80 Pin, 2MB EMA, 1536 RAM, 37 I/O	5.679	4.907	4.680	4.543
PIC18F8490-I/PT	TQFP80	16KB FLASH,1024EPR, 768RAM,66/I/O,5TMR,ADC,LCD dr	6.473	5.593	5.334	5.178
PIC18F8520-I/PT	TQFP80	32KB FLASH,1024EPR,2048RAM,68/I/O,5TMR,ADC,AUSART	8.626	7.453	7.108	6.901
PIC18F8525-I/PT	TQFP80	32KB FLASH,1024EPR,3840RAM,68/I/O,5TMR,ADC,EUSART	9.873	8.530	8.135	7.899
PIC18F8620-I/PT	TQFP80	32KB FLASH,1024EPR,3840RAM,68/I/O,5TMR,ADC,AUSART	12.329	10.652	10.159	9.863
PIC18F8680-I/PT	TQFP80	64KB FLASH,1024EPR,3328RAM,68/I/O,4TMR,ADC,EUSART	11.082	9.575	9.132	8.866
PIC18F8720-I/PT	TQFP80	128KB FLASH,1024EPR,3840RAM,68/I/O,5TMR,ADC,AUSART	13.727	11.860	11.311	10.981
PIC18F8722-I/PT	TQFP80	128KB FLASH,1024EPR,3840RAM,68/I/O,5TMR,ADC,AUSART	11.510	10.313	9.484	9.208
PIC17C766-33/L	PLCC84	84 Pin, 32 KB OTP, 902 RAM, 66 I/O	15.575	13.457	12.834	12.460

dsPic30F 16-bit ds PIC microcontrollers

NEW

			1-4	5-24	25-99	100+
DSPIC30F2010-20I/SPG	SDIP28	16 Bit MCU/DSP 20MIPS 12KB FLASH	5.440	4.700	4.483	4.352
DSPIC30F2010-20I/SOG	SO28	16 Bit MCU/DSP 20MIPS 12KB FLASH	5.239	4.526	4.317	4.191
DSPIC30F2010-30I/SPG	SDIP28	16 Bit MCU/DSP 30MIPS 12KB FLASH	5.642	4.875	4.649	4.513
DSPIC30F2010-30I/SOG	SO28	16 Bit MCU/DSP 30MIPS 12KB FLASH	5.440	4.700	4.483	4.352
DSPIC30F3012-30I/P	DIP18	16 Bit MCU/DSP 30MIPS 24 KB FLASH	5.667	4.896	4.670	4.534
DSPIC30F3013-20I/SO	SO28	16 Bit MCU/DSP 20MIPS 24 KB FLASH	6.146	5.310	5.064	4.916
DSPIC30F3013-20I/SP	SDIP28	16 Bit MCU/DSP 20MIPS 24 KB FLASH	6.347	5.484	5.230	5.078
DSPIC30F3013-30I/SPD	SDIP28	16 Bit MCU/DSP 30MIPS 24 KB FLASH	6.347	5.484	5.230	5.078
DSPIC30F3014-20I/PT	TQFP44	16 Bit MCU/DSP 20MIPS 24 KB FLASH	7.392	6.387	6.091	5.914
DSPIC30F3014-20I/P	DIP40	16 Bit MCU/DSP 20MIPS 24 KB FLASH	7.380	6.376	6.081	5.904
DSPIC30F4012-20I/SO	SO28	16 Bit MCU/DSP 20MIPS 48KB FLASH,	7.027	6.071	5.790	5.622
DSPIC30F4012-20I/SP	SDIP28	16 Bit MCU/DSP 20MIPS 48KB FLASH,	7.229	6.245	5.956	5.783
DSPIC30F4012-30I/SO	SO28	16 Bit MCU/DSP 30MIPS 48KB FLASH,	7.027	6.071	5.790	5.622
DSPIC30F4012-30I/SP	SDIP28	16 Bit MCU/DSP 30MIPS 48KB FLASH,	7.229	6.245	5.956	5.783
DSPIC30F4011-30I/SP	DIP40	16 Bit MCU/DSP 30MIPS 48KB FLASH,	7.921	6.844	6.527	6.337
DSPIC30F4011-30I/PT	TQFP44	16 Bit MCU/DSP 30MIPS 48KB FLASH,	7.934	6.855	6.537	6.347
DSPIC30F5011-30I/PT	TQFP64	16 Bit MCU/DSP 30MIPS 66KB FLASH,	9.470	8.182	7.803	7.576
DSPIC30F6011A-30I/PF	TQFP64	16 Bit MCU/DSP 30MIPS 132KB FLASH	13.462	11.631	11.093	10.770
DSPIC30F6012-30I/PF	TQFP64	16 Bit MCU/DSP 30MIPS 144KB FLASH	19.986	17.268	16.468	15.988
DSPIC30F6013-30I/PT	TQFP80	16 Bit MCU/DSP 30MIPS 66KB FLASH	10.213	8.824	8.416	8.171
DSPIC30F6010-30I/PF	TQFP80	16 Bit MCU/DSP 30MIPS 144KB FLASH	20.653	17.844	17.018	16.522
DSPIC30F6013-30I/PF	TQFP80	16 Bit MCU/DSP 30MIPS 132KB FLASH	20.225	17.474	16.665	16.180
DSPIC30F6014-30I/PF	TQFP80	16 Bit MCU/DSP 30MIPS 144KB FLASH	20.653	17.844	17.018	16.522
DSPIC30F6014A-30I/PF	TQFP80	16 Bit MCU/DSP 30MIPS 144KB FLASH	14.407	12.447	11.871	11.525
DSPIC30F6015-30I/PT	TQFP80	16 Bit MCU/DSP 30MIPS 144KB FLASH	12.014	10.380	9.900	9.611

PIC Microcontrollers**PIC24FJ/HJ 16-bit microcontrollers NEW**

			1-4	5-24	25-99	100+
PIC24FJ32GA002-I/SO	SO28	32KB SWFlash, 8KB RAM, 16MIPS, 21/I/O	3.010	2.600	2.480	2.408
PIC24FJ32GA002-I/SP	SDIP28	32KB SWFlash 8KB RAM, 16MIPS, 21/I/O	3.236	2.796	2.667	2.589
PIC24FJ32GA004-I/ML	QFN44	32KB SWFlash, 8KB RAM, 16MIPS, 35/I/O	3.539	3.057	2.916	2.831
PIC24FJ32GA004-I/PT	TQFP44	32KB SWFlash, 8KB RAM, 16MIPS, 35/I/O	3.312	2.862	2.729	2.650
PIC24FJ64GA002-I/SO	SO28	64KB SWFlash, 8KB RAM, 16MIPS, 21/I/O	3.753	3.242	3.092	3.002
PIC24FJ64GA002-I/SP	SDIP28	64KB SWFlash, 8KB RAM, 16MIPS, 21/I/O	4.005	3.460	3.300	3.204
PIC24FJ64GA004-I/ML	QFN44	64KB SWFlash, 8KB RAM, 16MIPS, 35/I/O	4.458	3.852	3.673	3.566
PIC24FJ64GA004-I/PT	TQFP44	64KB SWFlash, 8KB RAM, 16MIPS, 35/I/O	4.206	3.634	3.466	3.365
PIC24FJ64GA010-I/PF	TQFP100	64KB SWFlash, 8KB RAM, 16MIPS, 84/I/O	7.657	6.615	6.309	6.125
PIC24FJ96GA010-I/PF	TQFP100	96KB SWFlash, 8KB RAM, 16MIPS, 84/I/O	8.160	7.051	6.724	6.528
PIC24HJ128GP206-I/PT	TQFP64	128KB SWFlash, 8KB RAM, 40MIPS, 53/I/O	6.725	5.810	5.541	5.380
PIC24HJ128GP506-I/PT	TQFP64	128KB SWFlash, 8KB RAM, 40MIPS, 53/I/O, ECAN	7.052	6.093	5.811	5.642
PIC24HJ256GP206-I/PT	TQFP64	256KB SWFlash, 16KB RAM, 40MIPS, 53/I/O	8.601	7.431	7.087	6.881

dsPIC33FJ 16-bit ds PIC microcontrollers NEW

			1-4	5-24	25-99	100+
dsPIC33FJ128GP706-I/PT	TQFP64	128KB SWFlash, 16KB RAM, 40MIPS, 2xCAN, DSP	8.286	7.159	6.828	6.629
dsPIC33FJ128MC706-I/PT	TQFP64	128KB SWFlash, 16KB RAM, 40MIPS, CAN, DSP, MC	8.123	7.018	6.693	6.498
dsPIC33FJ12GP202-I/SO	SO28	12KB SWFlash, 1KB RAM, 40MIPS, 21/I/O, DSP	3.501	3.025	2.885	2.801
dsPIC33FJ12GP202-I/SP	SDIP28	12KB SWFlash, 1KB RAM, 40MIPS, 21/I/O, DSP	3.765	3.253	3.103	3.012
dsPIC33FJ12MC202-I/SO	SO28	12KB SWFlash, 1KB RAM, 40MIPS, 21/I/O, DSP, QEI	3.602	3.112	2.968	2.881
dsPIC33FJ12MC202-I/SP	SDIP28	12KB SWFlash, 1KB RAM, 40MIPS, 21/I/O, DSP, QEI	3.866	3.340	3.186	3.093
dsPIC33FJ256GP506-I/PT	TQFP64	256KB SWFlash, 16KB RAM, 40MIPS, CAN, DSP	9.206	7.954	7.585	7.365
dsPIC33FJ256GP510-I/PT	TQFP100	256KB SWFlash, 16KB RAM, 40MIPS, CAN, DSP	10.402	8.987	8.571	8.322
dsPIC33FJ256GP710-I/PT	TQFP100	256KB SWFlash, 30KB RAM, 40MIPS, 2xCAN, DSP	11.548	9.978	9.516	9.238
dsPIC33FJ64GP206-I/PT	TQFP64	64KB SWFlash, 8KB RAM, 40MIPS, DSP	6.146	5.310	5.064	4.916
dsPIC33FJ64GP706-I/PT	TQFP64	64KB SWFlash, 8KB RAM, 40MIPS, 2xCAN, DSP	7.455	6.441	6.143	5.964

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Development Tools Microchip

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AC162049	Universal Program Module ICD2, PICSTART, PROMATE	39.99
AC162050	MPLAB ICD 2 Header Interface 8PDIP for PIC12F629/67	26.00
AC162051	MPLAB ICD 2 Header Interface 28/40PDIP	20.79
AC162052	MPLAB ICD 2 Header Interface 14PDIP for PIC16F676/630	26.00
AC162053	MPLAB ICD 2 Header Interface 18PDIP for PIC16F627A, 628A, 648A	35.00
AC162056	MPLAB ICD 2 Header Interface for PIC16F688 (14 PDIP)	26.00
AC162057	MPLAB ICD 2 Header Interface for PIC12F635, 16F636 (14 PDIP)	26.00
AC163020	PICKIT 1 PIC10F2XX Universal Programmer Board	36.00
AC163027-2	PICDEM Z 2.4GHz Daughter Card (Chipcon)	39.00
AC164101	rPIC 433 Mhz Transmitter	30.00
AC164102	rPIC 315 Mhz Transmitter	30.00
AC164103	rPIC 433 Mhz Receiver	25.50
AC164120	PICkit 1 Signal Analysis Board	25.50
AC164121	Ethernet PICtail Daughter Board	39.99
AC164122	PICtail Daughter Board for SD & MMC cards	37.99
AC164301	18L/28L/40L DIP Socket Module for MPLAB PM3	189.99
AC164350	PROMATE II to MPLAB PM3 Socket Module Adapter	129.99
AC300020	Motor, 24V BLDC	120.00
DV103006	MCRF 355/450 Developers Kit	1500.00
DV164005	MPLAB ICD 2 Module and USB cable	159.99
DV164006	MPLAB IC2 Kit (ICD 2, USB&RS2323 Cable, Pwr Spl, PICDEM 2 Plus)	229.99
DV164007	MPLAB IC2 Kit (ICD 2, USB&RS2323 Cable, Pwr Spl)	189.99
DV164030*	MPLAB IC2 Kit with dsPIC Starter Demo board	209.99
DV164032	MPLAB IC2 kit with dsPICDEM 1.1 Demo Board	399.99
DV164101	PICKit 1 8/14P Flash Development Kit	36.00
DV164102	rPICkit Development Kit 1	135.00
DV164120	PICKit 2 Starter Kit	49.99
PG164120	PICKit 2 Microcontroller Programmer	34.99
PG164101*	PICKit 1 Baseline Flash Microcontroller Programmer	25.00
PICSTART PLUS	развивайна система за PIC - Microchip	199.99
PROMATE 3	MPLAB PROMATE 3 PROGRAMMER	895.00
DV250501	MCP250XX CAN Developer's Kit	165.00
DVMCPA	MXDEV 1 Analog Evaluation System Driver Board	169.99
ICE2000	MPLAB-ICE 2000 Univ. Emulator Pod Kit	1000.00
ICE4000	MPLAB-ICE 4000 Univ. Emulator Pod Kit	2560.00
DVA12XP080	PIC12C50X PDIP and SOIC 8 Device Adapter	125.00
DVA12XP081	PIC12CE51X, CE67X PDIP, SOIC8 (207mil) Dev Adapter	125.00
DVA16XP140	PIC16C505 PDIP and SOIC 14 LD Device Adapter	125.00
DVA16XP141	PIC16F630/676 14P DIP Device Adapter	125.00

Development Tools Microchip

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DVA16XP180	PIC16C52,54,54A,54B,56,56A,58A,58B,554,558,62X	125.00
DVA16XP182	PIC16C712, 716 PDIP, SOIC, SSOP 18 Device Adapter	165.00
DVA16XP183	PIC16F627, 628 PDIP, SOIC, SSOP 18 Device Adapter	165.00
DVA16XP186	PIC16F818, 819 PDIP, SOIC, SSOP 18 LD Device Adapter	165.00
DVA16XP280	PIC16C55, 55A, 57, 57C Device Adapter	125.00
DVA16XP282	PIC16C62A/3/3A, 642, 66, 723, 76, 773, 873/6 Device Adapter	165.00
DVA16XP401	PIC16C64A, 65B, 74B, 765, 77, 774, F871/4/7, PDIP40 Dev Ad	165.00
DVA16PQ441	PIC16C64A, 65B, 74B, F871A, 874, 877, 18CXX2 PQFP/TQFP 44 LD	225.00
DVA18XP280	PIC18F2220, 2320 PDIP 28LD Device Adapter	165.00
DVA18PQ640	PIC18C658 TQFP 64 LD Device Adapter*	225.00
DVA18XL680	PIC18C658 PLCC 68 LD Device Adapter*	225.00
XLT08SO	Transition socket 8SOIC (150&208mil)	35.00
XLT18SO	Transition socket 18SOIC (300mil)	75.00
XLT20SS	20 LD (209 mil) SSOP 18 LD Shrink Small Outline Transition Socket	75.00
XLT20SS1	20 LD (209 mil) SS 20 LD Header Shrink Small Outline Transition Socket	75.00
XLT28SO	Transition socket 28SOIC (300mil)	75.00
XLT44PT	Transition socket 44PQFP and 44TQFP	125.00
XLT80PT	Transition Socket PIC16C801 80TQFP	125.00
XLT64PT2	Transition Socket PIC17C75X, 18C6X8, 16C601 64TQFP	125.00
PCM12XB0	PIC16F629, 675 Processor Module	445.00
PCM16XA0	PIC12C50X, CE51X, C505, 5X Processor Module	445.00
PCM16XE1	PIC16C63A, 65B, 66, 67, 72/3/4/6/7, 712, 716 Pr Module	445.00
PCM16XK1	PIC16F87X Processor Module	445.00
PCM16XP0	PIC16F627, 628 Processor Module	445.00
PCM16XQ1	PIC16C745, 765 Processor Module	445.00
PCM16XV0	PIC16F877A/876A/874A/873A/872A/871A/870A Pr Mod	445.00
PCM16XR1	PIC16F870, 871 Processor Module	445.00
PCM16YD0	PIC16F630, 676 Processor Module	445.00
PCM16YE0	PIC16F818, 819 Processor Module	445.00
PCM16YF0	PIC16F627A, 628A Processor Module	445.00
PCM16YG0	PIC16F87/88 Processor Module	445.00
PCM18XB0	PIC18CXX8 Processor Module	445.00
PCM16XB1	PIC16C62A/63, 64A, 65A, 72, 73A, 74A Pr Module	445.00
PCM18XN0	PIC18F4525, 4515, 2525, 2515 Processor Module	445.00
UK003010	FLASH UPGRADE KIT FOR PICSTART PLUS	31.49
SW300001-LT	Digital Filter Design Lite	29.99
SW300010-EVAL	dsPIC30F Speech Recognition Library-Eval Copy	7.18
SW006011	C Compiler for PIC18CXXX Family	495.00
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SEEVAL	SEEVAL DESIGNERS KIT	99.99
HT-PICC	C Compiler for PIC12/14/16 Family	870.77
DM163004-LT	PICDEM-net DEMO BOARD	229.99
DM163010	PICDEM USB DEMO BOARD	125.00
DM163011	PICDEM CAN-LIN 2 for PIC18FXX8	199.99
DM163012	Mixed Signal Controller Demonstration Board for PIC16C781/782	99.99
DM163014	PICDEM 4 Demo Board for PIC12F629, 675, PIC16F630, 676, 684, 627A, 628A, 648A, 818, 819, 87, 88, 1220, 1320	129.99
DM163015	PICDEM CAN-LIN3	199.99
DM163025	PICDEM FS USB Demo Board	59.99
DM163026	Low Power Solutions Demo Board	129.99
DM163022	PICDEM 2 PLUS DEMO BOARD	99.99
DM163027-2	PICDEM Z 2.4GHz Demonstration Kit	199.99
DM163029	PICDEM MECHATRONICS	149.99
DM183011	PICDEM MC Demo Board	299.99
DM183022	PICDEM HPC Explorer Board	59.99
DM300004-2	dsPICDEM.net 2 Demo Board (CTR-21 PSTN Support, Ethernet NIC Support)	389.99
DM300014	dsPICDEM 1.1 General Purpose Demo Board	299.99
DM300017	dsPICDEM 28-PIN Starter Demo Board	79.99
DM300020	dsPICDEM MC1 Motor Control Dev Board	300.00
DM303006	HCS300 Demo/Eval Kit (replaces DM303002)	249.99
MA300013	dsPIC30F 80L QFP Plug In Sample (6010). Used in DM300020	25.75
APGRD001	PKE REFERENCE DESIGN	175.09
DM240001	PICDEM HPC Explorer Board	129.99
MCP3551DM-PCTL	MCP3551 Delta Sigma ADC Demo Board	40.00
MCP3905EV	MCP3905 Energy Meter IC Evaluation Board	75.00
MCP7382XEV	MCP7382X Li-Ion Single Cell Battery Charger Eval. Board	45.00
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MCP6S22DM-PICTL	MCP6S22 PGA PICTail Demo Board	40.00
MCP6S2XDM-PCTLTH	MCP6S2X PGA Thermistor PICTail Demo Board	35.00
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PROGR PIC12/14/16/17/18xx	Programmer PIC12/14/16/17/18xx, RS232	138.75
EPROM PROGR TURBO	EPROM Programmer 2716/27C080, RS232	108.80
EPROM SIMULATOR 512	EPROM Simulator 512	90.66
EPROM ERASER TURBO	UV EPROM eraser	75.68

Development Tools Olimex

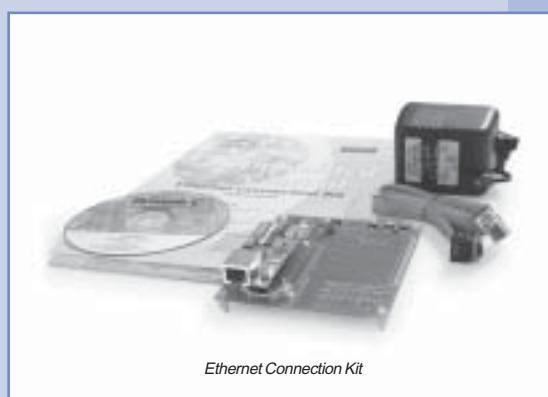
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PIC-ICD2-F	<i>PIC Microcontroller in-circuit debugger</i>	92.65
PIC-ICD2-TINY	<i>PIC Microcontroller in-circuit debugger</i>	50.95
PIC-IOA-B	<i>Development Board for 18 PIN PIC Microcontrollers</i>	30.55
PIC-MCP-D	<i>MPLAB Compatible PIC 8/18/28/40 PIN Devices Programmer</i>	74.85
PIC-MCP-USB	<i>MPLAB Compatible PIC 8/18/28/40 PIN Devices Programmer</i>	82.35
PIC-MT-C	<i>Development board for 28 PIN PIC Microcontroller</i>	34.63
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PIC-P14-20MHZ	<i>ICSP/ICD enabled 14 PIN PIC Microcontroller prototype board</i>	14.23
PIC-P18-20MHZ	<i>ICSP/ICD enabled 18 PIN PIC Microcontroller prototype board</i>	15.25
PIC-P28-20MHz	<i>ICSP/ICD enabled 28 PIN PIC Microcontroller prototype board with USB</i>	14.23
PIC-P28-USB	<i>ICSP/ICD enabled 28 PIN PIC Microcontroller prototype board with USB</i>	26.73
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PIC-PG1	<i>ICSP Serial Port dongle programmer</i>	10.15
PIC-PG2	<i>Serial port programmer for 8/18/28/40 PIN PIC Microcontrollers and I2C EEPROMS + ICSP connector and cable</i>	12.95
PIC-USB-A	<i>USB Adapter for PIC-MCP</i>	21.55
ARM-JTAG	<i>Dongle for programming and debugging</i>	19.95
AVR-H128-C	<i>ATMega128 header board with STKxxx compatible 10 PIN ICSP connector</i>	32.05
AVR-H128B/PCB ONLY	<i>ATMega128 header board PCB only</i>	3.06
AVR-IO-A	<i>Development board for 20 PIN AVR Microcontroller with STKxxx compatible 10 PIN ICSP</i>	30.55
AVR-JTAG-USB	<i>Optoisolated USB JTAG Dongle for programming and emulation</i>	50.95
AVR-M16	<i>AT Mega16 header board with JTAG Connector</i>	19.21
AVR-M32	<i>AT Mega32 header board with JTAG connector</i>	21.35
AVR-MT-A	<i>Development board for 20 PIN AVR Microcontroller with STKxxx compatible 10 PIN ICSP</i>	34.63
AVR-MT128	<i>Development board for ATMEGA128 AVR Microcontroller with JTAG and STKxxx compatible 10 PIN ICSP</i>	51.45
AVR-PG2B	<i>STKxxx Compatible ICSP parallel PORT Dongle Programmer</i>	10.65
LPC-E2124	<i>Board with ETHERNET interface FOR LPC2124 ARM7TDMI-S Microcontroller</i>	99.95
LPC-E2214	<i>LPC2214 ARM7TDMI-S Development board, 1MB External FLASH, 1MB External SRAM, USB, RS232, ETHERNET</i>	159.95
LPC-H2106	<i>LPC2106 ARM7 Microcontroller header board IN DIL40 FORMAT</i>	50.95
LPC-H2129	<i>LPC2129 Header board for LPC2129 ARM7TDMI-S Microcontroller</i>	64.95
LPC-H2214	<i>LPC2214 ARM7TDMI-S Header board with 1MB SRAM AND 1MB FLASH</i>	89.95
LPC-MT-2106	<i>Development board for LPC2106 ARM Microcontroller</i>	81.55
LPC-P2106	<i>Prototype board for LPC2106 ARM Microcontroller</i>	61.15
LPC-P2129	<i>Prototype board for LPC2129 ARM7TDMI-S Microcontroller</i>	69.95
MAXQ-JTAG	<i>MAXQ JTAG Programmer /Debugger, LPT PORT</i>	14.95
MAXQ-JTAG-USB	<i>MAXQ JTAG Programmer /Debugger, USB PORT</i>	59.95
MAXQ-H2000	<i>MAXQ2000-RAX Header board</i>	23.95
MAXQ-P2000	<i>MAXQ2000-RAX Prototype board</i>	36.95
MAXQ-2000STK	<i>MAXQ2000-RAX Starterkit evaluation board</i>	69.95
MSP430-1121STK	<i>MPS430F1121 Starterkit development board</i>	20.35
MSP430-449STK2	<i>MPS430F449 Starterkit development board</i>	72.05
MSP430-H1121	<i>MPS430F1121 Header board</i>	10.65
MSP430-H149	<i>MPS430F149 Header board</i>	20.55
MSP430-H449	<i>MPS430F449 Header board</i>	25.63
MSP430-JTAG	<i>JTAG for programming and FLASH emulation</i>	14.95
MSP430-P1121M	<i>MPS430F1121 Prototype board</i>	12.31
MSP430-easyWeb3	<i>TCP/IP board with MPS430F149 based on Andreas Dannenberg easyWeb TCP/IP</i>	72.05

Development Tools Rabbit Semiconductor

1+

RCM3700 DEV KIT	<i>Development kit for the RCM3700 series</i>	358.40
RCM3720 Ethernet conn.kit	<i>RCM3720 series Ethernet connection kit</i>	252.00
RCM3365 DEV KIT	<i>RCM3365 Dev Kit, 32MB memory card, Ethernet support</i>	418.50



Development Tools Rabbit Semiconductor

Camera Interface Application Kit

Development Tools for communication products

1+

GSM GM/GR Demo Board	GSM GM47/GR47 Demo Board	122.348
GPS Antaris SBE-LS DR Kit	Sensor-based eval. kit for TIM-LR, SBR-LS + gyroscope	
GPS Antaris4 EvKit AEK-4P	Eval. of Antaris 4 LEA-4P, TIM-4P, LEA-4A, TIM-4A	224.462
GPS Antaris4 EvKit AEK-4H	SuperSense Indoor GPS eval., TIM-4H and LEA-4H	224.462
GPS Antaris4 EvKit AEK-4T	SuperSense Indoor GPS eval., TIM-4H and LEA-4H	394.744

Transistors 2N, PN

1-4 5-24 25-99 100+ 500+

PN2222A	TO92	NPN 75/40V 600mA 500mW 300MHz	0.050	0.036	0.033	0.029	0.025
PN2907A	TO92	PNP 60/60V 600mA 500mW 200MHz	0.049	0.035	0.032	0.028	0.024
2N5401	TO92	PNP 150V 600mA 500mW 300MHz	0.040	0.029	0.026	0.023	0.020
2N5551	TO92	NPN 160V 600mA 625mW 100MHz	0.038	0.028	0.025	0.022	0.019

Transistors 2S

1-9 10-99 100+ 1000+ 5000+

2SC1740S ROHM	SC72	NPN 60/50V 150mA 0.3W 180 MHz	0.032	0.029	0.027	0.023	0.022
2SC4043S ROHM	SC72	NPN 20/11V 50mA 0.3W 3.2GHz 3.5dB	0.051	0.046	0.043	0.037	0.035
2SB772	TO126	PNP 40/30V 3A 10W Hfe 60-400 80MHz	0.087	0.079	0.073	0.064	0.061
2SD882	TO126	NPN 40/30V 3A 10W Hfe 60-400 90MHz	0.099	0.090	0.083	0.073	0.069

SMD version of 2SC4043S - 2SC3838K - page 52.

SMD version of 2SC1740S - 2SC2412K - page 52.

Transistors BC PHILIPS/ON SEMICONDUCTOR/FAIRCHILD

1-9 10-99 100-499 500-1999 2000+

BC327-40	TO92	PNP 45V 500mA 0.8W 250/600 100MHz	0.033	0.026	0.024	0.022	0.021
BC337-25	TO92	NPN 45V 500mA 0.8W 160/400 100MHz	0.033	0.026	0.024	0.022	0.021
BC337-40	TO92	NPN 45V 500mA 0.8W 250/600 100MHz	0.033	0.026	0.024	0.022	0.021
BC517	TO92	DNPN 30V 0.5A 0.5W Hfe>30000 220MHz	0.038	0.031	0.028	0.026	0.024
BC546B	TO92	NPN 65V 100mA 0.5W 200/450 300MHz	0.026	0.021	0.019	0.018	0.016
BC547C	TO92	NPN 45V 100mA 0.5W 420/800 300MHz	0.026	0.021	0.019	0.018	0.016
BC549C	TO92	NPN 30V 100mA 0.5W 420/800 300MHz	0.038	0.031	0.028	0.026	0.024
BC550C	TO92	NPN 45V 100mA 0.5W 420/800 300MHz	0.037	0.030	0.027	0.025	0.023
BC556B	TO92	PNP 65V 100mA 0.5W 220/475 200MHz	0.026	0.021	0.019	0.018	0.016
BC557C	TO92	PNP 45V 100mA 0.5W 420/800 200MHz	0.027	0.022	0.020	0.019	0.017
BC559C	TO92	PNP 30V 100mA 0.5W 320/800 200MHz	0.038	0.031	0.028	0.026	0.024
BC560C	TO92	PNP 45V 100mA 0.5W 420/800 200MHz	0.036	0.029	0.026	0.024	0.022
BC618	TO92	DNPN 55V 1A 0.625W Hfe>10000 150MHz	0.052	0.042	0.038	0.035	0.033
BC639	TO92	NPN 80V 1A 0.8W 40/250 130MHz	0.067	0.054	0.049	0.045	0.042
BC640	TO92	PNP 80V 1A 0.8W 40/250 50MHz	0.067	0.054	0.049	0.045	0.042

Transistors ZETEX E-Line~TO92

1-24 25-99 100+ 500+

ZTX320		NPN 30/15V 600MHz 6 dB 1.7pF 300 mW CBE	0.184	0.167	0.147	0.136
ZTX958		PNP 400/400V 0.5A hfe 100 Ucesat 0.40V CBE	0.656	0.598	0.525	0.486
ZTX651		NPN 80/60V 2A hfe 100 Ucesat 0.5V CBE	0.372	0.339	0.298	0.276
ZTX658		PNP 400/400V 0.5A hfe 50 Ucesat 0.5V CBE	0.373	0.339	0.298	0.276
ZTX712		PNP 80/60 0.8A hfe 5K Ucesat 1.25V CBE	0.244	0.222	0.195	0.181
ZTX751		PNP 80/60V 2A hfe 100 Ucesat 0.5V CBE	0.387	0.353	0.310	0.287
ZTX451		NPN 80/60V 1A hfe 50 Ucesat 0.35V CBE	0.228	0.207	0.182	0.169
ZTX453		NPN 120/100V 1A hfe 40 Ucesat 0.7V CBE	0.228	0.207	0.182	0.169
ZTX550		PNP 60/45V 1A hfe 100 Ucesat 0.25V CBE	0.244	0.223	0.195	0.181
ZTX549		PNP 35/30V 1A hfe 100 Ucesat 0.25V CBE	0.244	0.223	0.195	0.181
ZTX553		PNP 120/100V 1A hfe 40 Ucesat 0.25V CBE	0.244	0.223	0.195	0.181
ZTX705		PNP DARL140/120V 1A hfe 3K Ucesat 1.3V CBE	0.410	0.373	0.328	0.303

Transistors ZETEX E-Line~TO92

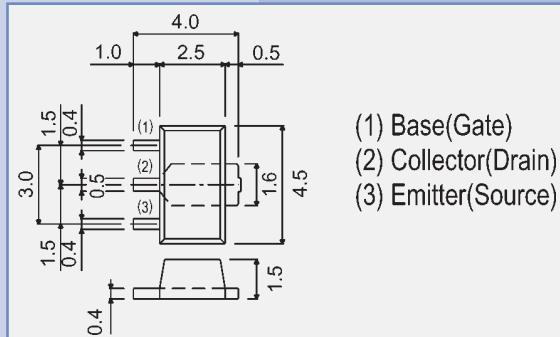
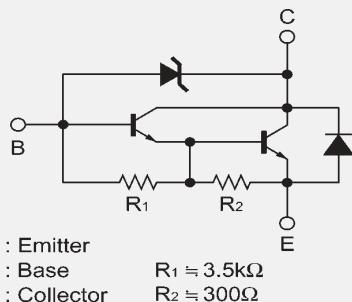
			1-24	25-99	100+	500+
ZTX601	NPN DARL180/160V 1A hfe 2K Ucesat 1.2V CBE		0.376	0.342	0.300	0.278
ZTX603	NPN DARL100/80V 1A hfe 5K Ucesat 1V CBE		0.294	0.267	0.235	0.217
ZTX749	PNP 35/25 2A hfe 100 Ucesat 0.6V CBE		0.393	0.358	0.315	0.291
ZTX690B	NPN 45/45V 2A hfe 400 Ucesat 0.5V CBE		0.450	0.410	0.360	0.334
ZTX790A	PNP 50/40V 2A hfe 150 Ucesat 0.75V CBE		0.466	0.425	0.373	0.345
ZTX653	NPN 120/100V 2A hfe 100 Ucesat 0.5V CBE		0.379	0.345	0.303	0.281
ZTX753	PNP 120/100V 2A hfe 100 Ucesat 0.5V CBE		0.400	0.364	0.320	0.296
ZTX857	NPN 330/300V 3A hfe 100 Ucesat 0.25V CBE		0.541	0.493	0.433	0.401
ZTX869	NPN 60/25V 5A hfe 250 Ucesat 0.22V CBE		0.541	0.493	0.433	0.401
ZTX949	PNP 50/30V 4.5A hfe 100 Ucesat 0.32V CBE		0.656	0.598	0.525	0.486
ZTX951	PNP 100/60V 4A hfe 100 Ucesat 0.30V CBE		0.630	0.574	0.504	0.467
ZTX1051A	NPN 150/40 4A hfe 300 Ucesat 0.21V CBE		0.379	0.345	0.303	0.280
ZTX968	PNP 15/12V 4.5A hfe 300 Ucesat 0.30V CBE		0.656	0.598	0.525	0.486
ZTX851	NPN 150/60V 5A hfe 100 Ucesat 0.25V CBE		0.521	0.475	0.417	0.386

Transistors SMD

			1-9	10-99	100-499	500-2999	3000+
2SC4081 ROHM SMD	SOT23	NPN 60/50V 150mA 0.2W	0.020	0.018	0.017	0.014	0.014
2SC4083 ROHM SMD	SOT23	NPN 20/11V 50mA 0.2W 3.2GHz 3.5dB	0.050	0.045	0.041	0.039	0.036
BC846B SMD	SOT23	NPN 80/65V 0.1A 0.25W HFE min200	0.023	0.016	0.014	0.013	0.0114
BC847B SMD	SOT23	NPN 50/45V 0.1A 0.25W HFE 200-450	0.019	0.014	0.012	0.011	0.0097
BC847C SMD	SOT23	NPN 50/45V 0.1A 0.25W HFE 420-800	0.023	0.016	0.014	0.013	0.0114
BC850C SMD	SOT23	NPN 50/45V 0.1A 0.25W HFE 420-800 F<4dB	0.029	0.021	0.018	0.017	0.0147
BC856B SMD	SOT23	PNP 80/65V 0.1A 0.25W HFE min200	0.023	0.016	0.014	0.013	0.0114
BC857C SMD	SOT23	PNP 50/45V 0.1A 0.35W HFE 420-800	0.022	0.016	0.014	0.013	0.0111
BC860C SMD	SOT23	PNP 50/45V 0.1A 0.25W HFE 420-800 F<4dB	0.032	0.023	0.020	0.019	0.0162
BCW30 SMD	SOT23	PNP 32V 0.1A 0.25W	0.033	0.023	0.020	0.019	0.0163
BCW32 SMD	SOT23	PNP 32V 0.1A 0.25W	0.031	0.022	0.019	0.018	0.0154
BC807-40 SMD	SOT23	PNP 45V 0.5A 0.25W HFE 250-600	0.024	0.017	0.015	0.014	0.0121
BC817-40 SMD	SOT23	NPN 45V 0.5A 0.25W HFE 250-600	0.023	0.016	0.014	0.013	0.0114
SST3904ROHM SMD R1A	SOT23	NPN 60/60V 0.1A 0.2W 50/100nS	0.041	0.027	0.024	0.022	0.0205
SST3906ROHM SMD R2A	SOT23	PNP 60/40V 0.2A 0.2W 50/100nS	0.043	0.028	0.025	0.023	0.0216
MMBT42 SMD	SOT23	NPN 300V 0.5A 0.225/0.3W	0.048	0.034	0.029	0.028	0.0240
MMBT492 SMD	SOT23	NPN 300V 0.5A 0.225/0.3W	0.048	0.033	0.029	0.027	0.0238
MMBT2222A	SOT23	NPN 75/40V 0.6A 0.25W 35/250nS	0.027	0.019	0.017	0.016	0.0137
MMBT2907A	SOT23	PNP 60/60V 0.6A 0.225W 45/100nS	0.024	0.017	0.015	0.014	0.0122
MMBT5401 SMD	SOT23	PNP 160/150V 0.6A 0.35W HFE 60-240	0.046	0.032	0.028	0.026	0.0229
MMBT5551 SMD	SOT23	NPN 180/160V 0.6A 0.35W HFE 80-250	0.050	0.035	0.031	0.029	0.0252
SST2222AROHMSMDR1P	SOT23	NPN 75/40V 0.6A 0.35W 25/60nS	0.037	0.025	0.022	0.020	0.0187
SST2907AROHMSMDR2F	SOT23	PNP 60/60V 0.6A 0.2W 50/100nS	0.048	0.031	0.028	0.026	0.0238
FMMT634	SOT23	NPN DARL100V 0.9A 0.625W HFE 15K	0.232	0.209	0.192	0.179	0.1659
FMMT617	SOT23	NPN 15V 3A 0.625W HFE 300	0.206	0.185	0.171	0.159	0.1471
2SA1037AK ROHM SMD	SC59	PNP 60/50V 150mA 0.2W	0.028	0.018	0.016	0.015	0.014
2SC2412K ROHM SMD	SC59	NPN 60/50V 150mA 0.2W	0.028	0.018	0.016	0.015	0.014
2SC3837K ROHM SMD	SC59	NPN 30/18V 50mA 0.2W 1.5GHz 4.5dB	0.077	0.070	0.064	0.060	0.055
2SC3838K ROHM SMD	SC59	NPN 20/11V 50mA 0.2W 3.2GHz 3.5dB	0.073	0.065	0.060	0.056	0.052
2SD2212T100 ROHM SMD	SOT89	NPN 60V 2A(3A Imp) 2W HFE 1k-10k	0.180	0.163	0.155	0.147	0.1385
2SA1797 ROHM SMD	SOT89	PNP 50V 2.0A 0.5W HFE 82-270	0.142	0.128	0.118	0.110	0.101
2SC4672 ROHM SMD	SOT89	NPN 50V 2.0A 0.5W HFE 82-270	0.144	0.130	0.120	0.105	0.100
FCX717	SOT89	PNP 12V 3A 1W HFE 160-300	0.276	0.248	0.229	0.213	0.197
BCX53-16	SOT89	PNP 100/80V 1A 1W HFE 100-250	0.147	0.103	0.096	0.088	0.0818
BCX56-16	SOT89	NPN 80V 1A 1.3W HFE 100-250	0.146	0.102	0.095	0.087	0.0809
FZT600	SOT223	NPN DARL160/140V 2.0A 2W HFE 1K	0.384	0.345	0.318	0.296	0.274
FZT605	SOT223	NPN DARL140/120V 1.5A 2W HFE 2K	0.384	0.345	0.318	0.296	0.274
FZT690B	SOT223	NPN 45/45V 3A 2W HFE 500	0.471	0.424	0.390	0.363	0.336
FZT790A	SOT223	PNP 50/40V 3A 2W HFE 300-800	0.479	0.431	0.397	0.369	0.342
FZT851	SOT223	NPN 150/60V 6A 3W HFE 100-300	0.528	0.475	0.438	0.407	0.377
FZT853	SOT223	NPN 200/100V 6A 3W HFE 100-300	0.507	0.456	0.420	0.391	0.362
FZT951	SOT223	PNP 100/60V 5A 3W HFE 100-300	0.585	0.526	0.484	0.451	0.418
FZT458	SOT223	NPN 400/400V 0.3A 2W HFE 100-300	0.332	0.299	0.275	0.256	0.237
FZT558	SOT223	PNP 400/400V 0.2A 2W HFE 100-300	0.333	0.300	0.276	0.257	0.238
FZT705	SOT223	PNP 140/120V 2A 2W HFE 3K	0.420	0.378	0.348	0.324	0.300
FZT603	SOT223	NPN 100/80V 2A 2W HFE 2K-100K	0.329	0.296	0.273	0.254	0.235
FZT651	SOT223	NPN 80/60V 3A 2W HFE 200-300	0.384	0.345	0.318	0.296	0.274
FZT653	SOT223	NPN 120/100V 2A 2W HFE 200-300	0.384	0.345	0.318	0.296	0.274
FZT753	SOT223	PNP 120/100V 2A 2W HFE 100-300	0.402	0.362	0.333	0.310	0.287
FZT1051A	SOT223	NPN 40V 5A 2.5W HFE 270-1200	0.425	0.382	0.352	0.327	0.303
2SD1918TRQ ROHM SMD	SOT428	NPN 160/160V 1.5A 1(10)W 80MHz	0.275	0.248	0.228	0.212	0.1965

SMD Medium power NPN SMD transistor (motor, relay drive)

2SD2212 - SOT89



- * built-in cener diode between base and collector
- * built-in resistor between base and emitter
- * built-in damper deode
- * strong protection against reverse surges due to L loads

Characteristics

Parameter	Symbol	Value	Unit/Conditions
Collector base voltage	V_{CBO}	60+/-10	V
Collector emitter voltage	V_{CES}	60+/-10	V
Emitter base voltage	V_{EBO}	6	V
Collector current	I_c	2	A(DC)
		3	A(pulse)
Dissipated power by collector	P_c	2	W (ceramic substrate 40x40x0.7)
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 - +150	°C
DC current transfer ratio	h_{FE}	1k-10k	$V_{CE} = 2V, I_c=1A$
Breakdown voltage collector-base	BV_{CBO}	50-70	$V(I_c=50\mu A)$
Breakdown voltage collector-emitter	BV_{CEO}	50-70	$V(I_c=5 mA)$
Cut-off collector current	I_{CBO}	1.0	$\mu A(V_{CB} = 40V)$
Cut-off emitter current	I_{EBO}	3	$mA(V_{EB} = 5V)$
Saturation voltage collector-emitter	$V_{CE(sat)}$	1.5	$V(I_c/I_b=1A/1mA)$
Output capacitance	C_{ob}	25pF	$V_{CB} = 10V, f=1MHz$

Transistors FET SMD

			1-9	10-99	100-499	500-2999	3000+
ZXM64N02X	MSOP8	NMOS 20V 5.4A 1.8W 0.04Ohm/4.5V	0.729	0.656	0.604	0.562	0.521
ZXM64P02X	MSOP8	PMOS 20V 3.6A 1.8W 0.09Ohm/4.5V	0.990	0.891	0.820	0.764	0.707
2SK3019TL ROHM SMD	SOT416	NMOS 30V 0.1A 7 Ohm/2.5V	0.047	0.038	0.034	0.032	0.029
RK4936TB ROHM SMD	S08	NMOS 30V 6A 2W 40Ohm/4V, DUAL	0.562	0.450	0.411	0.379	0.351
BS250F ZETEX SMD	SOT223	PMOS 45V 0.09A 14 Ohm Vgs 1.0/3.5V	0.213	0.198	0.184	0.171	0.160
ZVN2106G ZETEX SMD	SOT223	NMOS 60V 0.71A 2 Ohm Vgs 0.8/2.4V	0.319	0.289	0.275	0.260	0.245
ZVN4424G ZETEX SMD	SOT223	NMOS 240V 0.5A 6 Ohm Vgs 0.8/1.8V	0.474	0.437	0.415	0.392	0.370
ZVP2106G ZETEX SMD	SOT223	PMOS 60V 0.45A 5 Ohm Vgs 1.5/3.5V	0.297	0.277	0.257	0.239	0.224
ZVP4424G ZETEX SMD	SOT223	PMOS 240V 0.48A 11 Ohm Vgs 0.7/2.0V	0.433	0.404	0.375	0.349	0.326
BSS138 SMD	SOT23	NMOS 50V 0.2A 3.5 Ohm Vgs 0.5/1.5V	0.094	0.066	0.057	0.054	0.047
RK7002 ROHM SMD	SOT23	NMOS 60V 0.115A 0.225W, 2.2Ohm/4V	0.044	0.035	0.032	0.030	0.027
ZVN3310F ZETEX SMD	SOT23	NMOS 100V 0.1A 10 Ohm Vgs 0.8/2.4V	0.209	0.194	0.180	0.168	0.157
ZVP3310F ZETEX SMD	SOT23	PMOS 100V 0.075A 20 Ohm Vgs 1.5/3.5V	0.266	0.239	0.222	0.206	0.193
ZXM61N02F	SOT23	NMOS 20V 1.7A 0.625W 0.18Ohm/4.5V	0.225	0.203	0.187	0.174	0.161
ZXM61P02F	SOT23	PMOS 20V 0.9A 0.625W 0.60Ohm/4.5V	0.279	0.251	0.231	0.215	0.199
ZXM62N02E6	SOT23-6	NMOS 20V 3.2A 1.7W 0.125Ohm/4.5V	0.443	0.398	0.367	0.341	0.316
ZXM62P02E6	SOT23-6	PMOS 20V 2.3A 1.7W 0.20Ohm/4.5V	0.462	0.416	0.383	0.357	0.330
2SK3065 ROHM SMD	SOT89	NMOS 60V 2A 0.5W 0.25Ohm/4V SINGLE	0.208	0.167	0.152	0.141	0.130
2SK2503TL ROHM SMD	SOT428	NMOS 60V 5A Vgs 1.0/2.5V 0.20Ohm/4V	0.380	0.304	0.278	0.256	0.237
2SK2504 ROHM SMD	SOT428	NMOS 100V 5A Vgs 1.0/2.5V 0.28Ohm/4V	0.342	0.273	0.250	0.231	0.213
2SK2715TL ROHM SMD	SOT428	NMOS 500V 2A Vgs 2.0/4.0V 4.00Ohm/10V	0.414	0.331	0.303	0.280	0.259
2SK3050TL ROHM SMD	SOT428	NMOS 600V 2A 24W 4.40Ohm/10V	0.394	0.315	0.288	0.266	0.246
RK3055ETL ROHM SMD	SOT428	NMOS 60V 8A 20W Vgs 1.0/2.5V 0.15Ohm/10V	0.314	0.251	0.230	0.212	0.196
2SK3018T ROHM SMD	SOT323	NMOS 30V 0.1A 0.2W Vgs 0.8/1.5V 50Ohm/4V	0.047	0.037	0.034	0.031	0.029
UM5K1NTR ROHM SMD	SOT353	Dual NMOS 30V 0.1A 0.15W Vgs 0.8/1.5V 50Ohm/4V	0.091	0.082	0.076	0.071	0.065
RSQ035N03 ROHM SMD	TSMT6	NMOS 30V 2.5A 1W Vgs 0.8/1.5V 65mOhm/4.5V	0.151	0.136	0.125	0.117	0.108

Transistors BD, BDX

			1-4	5-24	25-99	100+	500+
BD139	TO126	NPN 80V 1.5A 8W 100 250MHz	0.152	0.121	0.111	0.102	0.0948
BD140	TO126	PNP 80V 1.5A 8W 100 75MHz	0.152	0.121	0.111	0.102	0.0948
BD237	TO126	NPN 80V 2A 25W	0.208	0.166	0.152	0.140	0.1299
BD238	TO126	PNP 80V 2A 25W	0.208	0.166	0.152	0.140	0.1299
BD681S	TO126	NPN Darl 100V 4A 14W HFE 750	0.228	0.182	0.166	0.154	0.1422
BD682S	TO126	PNP Darl 100V 4A 14W Hfe 750	0.233	0.187	0.171	0.157	0.1458
BDW93C	TO220	NPN D 100V 12A 80W	0.490	0.398	0.364	0.335	0.3163
BDW94C	TO220	PNP D 100V 12A 80W	0.512	0.416	0.380	0.350	0.3302

Transistors BF, BFG, BFR, BFY

			1-9	10-99	100+	1000+	3000+
BF459	TO126	NPN 300V 100mA 6W	0.215	0.178	0.153	0.139	
BFG97	SOT223	NPN 20V 100mA 0.5W 5GHz	0.595	0.492	0.453	0.384	
BFG135	SOT223	NPN 25V 150mA 1W 7GHz	1.123	0.927	0.855	0.724	
BFR91A	SOT37	NPN 12V 35mA 0.3W 6GHz	0.278	0.229	0.211	0.179	
BFR93A	SOT23	NPN 12V 35mA 0.25W 5GHz	0.178	0.125	0.109	0.102	0.089
BFR96TS	TO50(3)	NPN 15V 100mA 0.7W 5GHz 11.5dB	0.268	0.221	0.204	0.173	

Transistors BU, BUT

			1-4	5-24	25-99	100+	500+
BU2508AF	SOT199	NPN 1500/700V 8A 45W 0.6μS	1.408	1.245	1.191	1.083	
BU508AF	SOT199	NPN 1500/700V 8A 60W 0.55μS	1.503	1.330	1.272	1.156	
BUT11AI Philips	SOT78	NPN 1000/450V 5A 100W	0.447	0.396	0.357	0.313	0.298

Transistors MJE, MPSA

			1-4	5-24	25-99	100+	500+
MJE13005	TO220	NPN 400V 4A 75W	0.250	0.222	0.200	0.175	0.167
MJE13007	TO220	NPN 400V 8A 80W	0.437	0.387	0.367	0.321	0.306
MJE340 (KSE340)	TO126	NPN 300V 0.5A 20W	0.186	0.165	0.149	0.130	0.124
MJE350 (KSE350)	TO126	PNP 300V 0.5A 20W	0.209	0.185	0.167	0.146	0.139
			1-9	10-99	100+	500+	2000+
MPSA13	TO92	DNP N 30V 0.5A 0.625W 125MHz	0.050	0.040	0.037	0.034	0.032
MPSA42	TO92	NPN 300V 0.5A 0.625W 50MHz	0.047	0.037	0.034	0.031	0.029
MPSA92	TO92	PNP 300V 0.5A 0.625W 50MHz	0.049	0.039	0.036	0.033	0.031

Transistors TIP

			1-4	5-24	25-99	100-499	500+
TIP41C	TO220	NPN 100V 6A 65W	0.244	0.227	0.209	0.185	0.168
TIP42C	TO220	PNP 100V 6A 65W	0.244	0.227	0.209	0.185	0.168
TIP122	TO220	NPN 100V 5A 65W	0.214	0.199	0.183	0.162	0.148
TIP127	TO220	PNP 100V 5A 65W	0.214	0.199	0.183	0.162	0.148

Digital Transistors ROHM

			1-9	10-99	100+	500+	3000+
DTA114TKA ROHM SMD	SC59	DIGI TRANS Rin 10k PNP 50V 100mA	0.037	0.024	0.021	0.020	0.0183
DTA114YKA ROHM SMD	SC59	DIGI TRANS Rin 10k Rbe 47k PNP 50V 70mA	0.037	0.024	0.021	0.020	0.0183
DTC114TKA ROHM SMD	SC59	DIGI TRANS Rin 10k NPN 50V 100mA	0.037	0.024	0.021	0.020	0.0183
DTC114YKA ROHM SMD	SC59	DIGI TRANS Rin 10k Rbe 47k NPN 50V 70mA	0.037	0.024	0.021	0.020	0.0183
DTC124TKA ROHM SMD	SC59	DIGI TRANS Rin 22k NPN 50V 100mA	0.037	0.024	0.021	0.020	0.0183
DTC143TKA ROHM SMD	SC59	DIGI TRANS Rin 4.7k NPN 50V 100mA	0.037	0.024	0.021	0.020	0.0183
DTC144TKA ROHM SMD	SC59	DIGI TRANS Rin 47k NPN 50V 100mA	0.037	0.024	0.021	0.020	0.0183

Digital Transistors ROHM

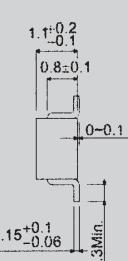
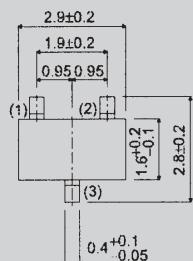
IMD2AT108 ROHM SMD

SC74A

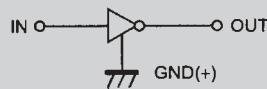
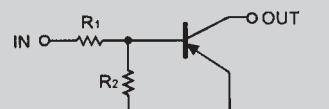
COMPL DIG TRANS Rin 22k PNP/NPN 50V 30mA

1-9 10-99 100+ 500+ 3000+

0.064 0.051 0.046 0.043 0.0397



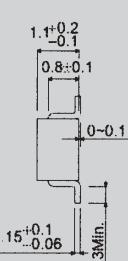
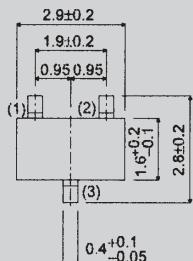
(1) GND
(2) IN
(3) OUT



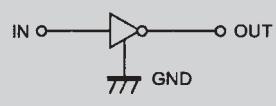
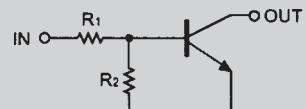
DTA114YKA

ROHM : SMT3
EIAJ : SC-59

Abbreviated symbol : 54



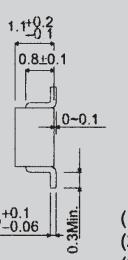
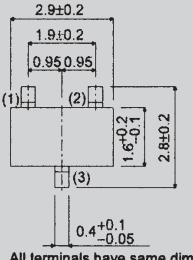
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(3) OUT



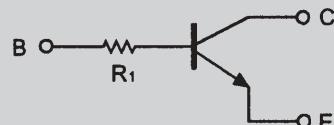
DTC114YKA

ROHM : SMT3
EIAJ : SC-59

Abbreviated symbol : 64



(1) Emitter
(2) Base
(3) Collector



B : Base
C : Collector
E : Emitter

DTC143TKA

ROHM : SMT3
EIAJ : SC-59

Abbreviated symbol : 03

Transistors FET ZETEX

1-24 25-99 100+ 500+

ZVNL120A	TO92	N MOSFET 200V 0.18A 10 Ohm Vgs 0.5/1.5V	0.402	0.367	0.322	0.298
BS170P	TO92	N MOSFET 60V 0.27A 5 Ohm Vgs 0.8/3V	0.075	0.068	0.060	0.055
BS250P	TO92	P MOSFET 45V 0.23A 0.7W 14Ohm Vgs 1/3.5V	0.307	0.280	0.246	0.228
ZVN2106A	TO92	N MOSFET 60V 0.45A 2 Ohm Vgs 0.8/2.4V	0.381	0.347	0.305	0.282
ZVN3306A	TO92	N MOSFET 60V 0.27A 5 Ohm Vgs 0.8/2.4V	0.255	0.233	0.204	0.189
ZVN4210A	TO92	N MOSFET 100V 0.45A 1.8 Ohm Vgs 0.8/2.4V	0.275	0.251	0.220	0.204
ZVN4306A	TO92	N MOSFET 60V 1.1A 0.45 Ohm Vgs 1.3/3V	0.702	0.639	0.561	0.520
ZVP3310A	TO92	P MOSFET 100V 0.14A 20 Ohm Vgs 1.5/3.5V	0.304	0.277	0.243	0.225
ZVP4424A	TO92	P MOSFET 240V 0.2A 11 Ohm Vgs 0.7/2V	0.457	0.416	0.366	0.339

Transistors FET

1-24 25-99 100+ 500+

BS107	TO92	NDMOS 200V 0.12A 0.25W 10/15nS 28 Ohm	0.145	0.135	0.126	0.112
BS108	TO92	NDMOS 200V 0.23A 10/30nS	0.190	0.177	0.165	0.146
J175	TO92	PJFET 30V 125 Ohm 15/30nS	0.187	0.174	0.162	0.144
PN4393	TO92	NJFET 30V 100 Ohm 0.2W	0.086	0.080	0.075	0.066

Power MOS FET

1-24 25-99 100+ 500+

BUZ11	TO220	N 50V 30A 75W 0.040R	0.572	0.508	0.453	0.423
IRF530	TO220	N 100V 14A 75W 0.16R	0.540	0.480	0.428	0.400
IRF540	TO220	N 100V 30A 150W 0.077R	0.469	0.417	0.372	0.347

Power MOS FET

			1-24	25-99	100+	500+
IRF630	TO220	N 200V 9.0A 75W 0.4R	0.366	0.325	0.290	0.271
IRF640	TO220	N 200V 18A 125W 0.18R	0.471	0.418	0.373	0.349
IRF730B	TO220	N 400V 5.5A 73W 1.0R	0.507	0.451	0.402	0.376
IRF730	TO220	N 400V 5.5A 100W 1.0R	0.584	0.519	0.463	0.432
IRF740	TO220	N 400V 10A 125W 0.55R	0.710	0.631	0.562	0.526
IRF830	TO220	N 500V 4.5A 75W 1.5R	0.585	0.520	0.463	0.433
IRF840	TO220	N 500V 8.0A 125W 0.85R	0.660	0.587	0.523	0.499

IRFP250N	TO247	N 200V 30A 214W 0.075R	1.472	1.302	1.132
IRFP460	TO247	N 500V 20A 280W 0.27R	2.237	1.979	1.721

IRF9530N	TO220	P 100V 14A 79W 0.2R	0.587	0.522	0.466	0.435
IRF9540N	TO220	P 100V 23A 140W 0.117R	0.706	0.627	0.559	0.523
IRF9630	TO220	P 200V 6.5A 74W 0.8R	0.594	0.526	0.457	
IRF9640	TO220	P 200V 11A 125W 0.5R	0.880	0.779	0.677	

Power IGBT Transistors			1-24	25-99	100+
BUP314	TO218AB	IGBT 1200V 52A 300W Ucesat typ. 2.7V/25A	5.666	5.012	4.359

Diodes up to 0.3A			1-9	10-99	100-999	1000-4999	5000+
1N4148	DO35	100V 0.15A U_{FM} 1V/0.01A I_{FM} 0.5A I_R 5uA 4nS, Fast	0.0129	0.0062	0.0049	0.0046	0.0043
BAT42	DO35	Schottky 30V 0.2A Ifrm 0.5A U_F 0.4V/10mA; 5ns 7pF	0.0577	0.0487	0.0433	0.0361	

Diodes up to 1A			1-9	10-99	100-999	1000-4999	5000+
1N4004	DO41	400V 1A U_{FM} 1.1V/1A I_{FM} 30A I_R 5uA	0.0345	0.0138	0.0084	0.0073	0.0069
1N4007	DO41	1000V 1A U_{FM} 1.1V/1A I_{FM} 30A I_R 5uA	0.0351	0.0140	0.0086	0.0074	0.0070
1N4007T/R	DO41	1000V 1A U_{FM} 1.1V/1A I_{FM} 30A I_R 5uA	0.0378	0.0151	0.0092	0.0080	0.0076
1N4007G	DO41	1000V 1A U_{FM} 1.1V/1A I_{FM} 30A I_R 5uA, Glass passiv.	0.0381	0.0184	0.0155	0.0140	0.0127
1N4007 MBR	DO41	1000V 1A U_{FM} 1.1V/1A I_{FM} 30A I_R 5uA	0.0481	0.0193	0.0117	0.0102	0.0096
BY133	DO41	1300V 1A U_{FM} 1.1V/1A I_{FM} 30A I_R 5uA	0.0271	0.0109	0.0066	0.0058	0.0054
1N5819	DO41	40V 1A U_{FM} 0.6V/1A I_{FM} 25A I_R 1mA, Schottky	0.056	0.026	0.020	0.0171	0.0161
BA157	DO41	400V 1A U_{FM} 1.3V/1A I_{FM} 30A I_R 5uA 150nS, Fast	0.0295	0.0135	0.0103	0.0089	0.0084
BA159	DO41	1000V 1A U_{FM} 1.3V/1A I_{FM} 30A I_R 5uA 500nS, Fast	0.0300	0.0137	0.0105	0.0091	0.0086
FR104	DO41	400V 1A U_{FM} 1.3V/1A I_{FM} 30A I_R 5uA 150nS, Fast	0.0291	0.0133	0.0101	0.0088	0.0083
FR106	DO41	800V 1A U_{FM} 1.3V/1A I_{FM} 30A I_R 5uA 500nS, Fast	0.0293	0.0134	0.0102	0.0089	0.0084
FR107	DO41	1000V 1A U_{FM} 1.3V/1A I_{FM} 30A I_R 5uA 500nS, Fast	0.0293	0.0134	0.0102	0.0089	0.0084
HER105	DO41	400V 1A U_{FM} 1.3V/1A I_{FM} 30A I_R 5uA 50ns, Hi-Eff	0.026	0.020	0.0177	0.0158	0.0150
HER107	DO41	800V 1A U_{FM} 1.7V/1A I_{FM} 30A I_R 5uA 70ns, Hi-Eff	0.026	0.020	0.0179	0.0159	0.0151
SF15	DO41	300V 1A U_{FM} 1.25V/1A I_{FM} 30A I_R 5uA 35nS, Super Fast	0.0387	0.0304	0.0266	0.0236	0.0225
SF16	DO41	400V 1A U_{FM} 1.25V/1A I_{FM} 30A I_R 5uA 35nS, Super Fast	0.0391	0.0307	0.0268	0.0239	0.0227
BYV26C	SOD57	600V 1A I_{FM} 30A I_R 5uA 30nS Super Fast Avalanche Diode	0.2235	0.2028	0.1724	0.1596	

Diodes up to 5A			1-9	10-99	100-499	500+	2000+
RL202	DO15	100V 2A U_{FM} 1V/2A I_{FM} 70A I_R 5uA	0.0479	0.0192	0.0117	0.0102	0.0096
RL204	DO15	400V 2A U_{FM} 1V/2A I_{FM} 70A I_R 5uA	0.0483	0.0193	0.0118	0.0102	0.0097
RL207	DO15	1000V 2A U_{FM} 1V/2A I_{FM} 70A I_R 5uA	0.0509	0.0204	0.0124	0.0108	0.0102
1N5400	DO27	50V 3A U_{FM} 1V/3A I_{FM} 200A I_R 10uA	0.0641	0.0310	0.0246	0.0227	0.0214
1N5404	DO27	400V 3A U_{FM} 1V/3A I_{FM} 200A I_R 10uA	0.0679	0.0328	0.0260	0.0240	0.0226
1N5407	DO27	800V 3A U_{FM} 1V/3A I_{FM} 200A I_R 10uA	0.0698	0.0337	0.0267	0.0247	0.0233
1N5408	DO27	1000V 3A U_{FM} 1V/3A I_{FM} 200A I_R 10uA	0.0701	0.0339	0.0269	0.0248	0.0234
1N5408T/R	DO27	1000V 3A U_{FM} 1V/3A I_{FM} 200A I_R 10uA	0.0738	0.0357	0.0283	0.0261	0.0246

			1-9	10-99	100-999	1000+	5000+
1N5822	DO27	40V 3A U_{FM} 0.525V/3A I_{FM} 80A I_R 2mA, Schottky	0.068	0.062	0.0523	0.0485	

FR302	DO27	100V 3A U_{FM} 1.3V/3A I_{FM} 200A I_R 10uA 150nS, Fast	0.038	0.034	0.032	0.0295	0.0273
FR304	DO27	400V 3A U_{FM} 1.3V/3A I_{FM} 200A I_R 10uA 150nS, Fast	0.041	0.037	0.034	0.0314	0.0290
FR307	DO27	1000V 3A U_{FM} 1.3V/3A I_{FM} 200A I_R 10uA 500nS, Fast	0.044	0.039	0.036	0.0336	0.0312

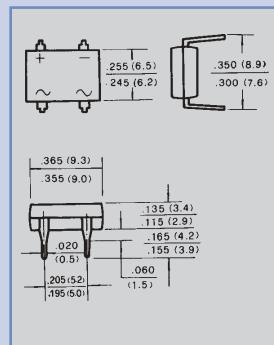
HER303	DO27	200V 3A U_{FM} 1V/3A I_{FM} 200A I_R 10uA 50ns, Hi-Eff	0.063	0.0567	0.0482	0.0446	
HER305	DO27	400V 3A U_{FM} 1.3V/3A I_{FM} 200A I_R 10uA 50ns, Hi-Eff	0.064	0.0577	0.0491	0.0455	
HER307	DO27	800V 3A U_{FM} 1.7V/3A I_{FM} 150A I_R 10uA 70ns, Hi-Eff	0.065	0.0588	0.0500	0.0463	

SF35	DO27	300V 3A U_{FM} 1.25/3A I_{FM} 125A I_R 5uA 35nS, Super Fast	0.069	0.0624	0.0531	0.0491	
SF36	DO27	400V 3A U_{FM} 1.25/3A I_{FM} 125A I_R 5uA 35nS, Super Fast	0.070	0.0634	0.0539	0.0499	

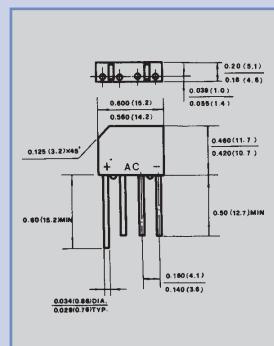
BYW96E	SOD57	1000V 3A 300nSAval
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Diodes above 5A			1-9	10-99	100+	500+	1000+
FR602	R6	100V 6A U_{FM} 1.3V/6A I_{FM} 300A I_R 10uA 150nS, Fast	0.100	0.086	0.082	0.0715	
FR604	R6	400V 6A U_{FM} 1.3V/6A I_{FM} 300A I_R 10uA 150nS, Fast	0.100	0.086	0.083	0.0718	
FR607	R6	1000V 6A U_{FM} 1.3V/6A I_{FM} 300A I_R 10uA 500nS, Fast	0.101	0.087	0.083	0.0724	
SB540 (SR504)	DO27	40V 5A U_{FM} 0.57V/5A I_{FM} 250A I_R 10mA, Schottky	0.116	0.099	0.095	0.0827	
SR508	DO27	80V 5A U_{FM} 0.70V/5A I_{FM} 250A I_R 10mA, Schottky	0.140	0.120	0.115	0.0999	
6A1S	R6S	100V 6A U_{FM} 0.95V/6A I_{FM} 250A I_R 10uA	0.0798	0.0718	0.0661	0.0616	0.0570
6A4S	R6S	400V 6A U_{FM} 0.95V/6A I_{FM} 250A I_R 10uA	0.0804	0.0724	0.0666	0.0620	0.0574
6A10S	R6S	1000V 6A U_{FM} 0.95V/6A I_{FM} 250A I_R 10uA	0.0875	0.0787	0.0725	0.0675	0.0625
HER602	R6	100V 6A U_{FM} 1V/6A I_{FM} 200A I_R 10uA 70nS	0.1191	0.1072	0.0987	0.0919	0.0851
HER605	R6	400V 6A U_{FM} 1.3V/6A I_{FM} 200A I_R 10uA 70nS	0.1200	0.1080	0.0994	0.0926	0.0857
SR1640	TO220AC	40V 16A U_{FM} 0.65V/16A I_{FM} 150A I_R 10mA, Schottky	0.2665	0.2376	0.2221		
SR1640CT (dual)	TO220AC	40V 16A U_{FM} 0.65V/16A I_{FM} 150A I_R 10mA, Schottky	0.2899	0.2585	0.2416		
SR1680	TO220AC	80V 16A U_{FM} 0.85V/16A I_{FM} 150A I_R 10mA, Schottky	0.3616	0.3225	0.3014		
SR1680CT (dual)	TO220AB	80V 16A U_{FM} 0.85V/16A I_{FM} 150A I_R 10mA, Schottky	0.3630	0.3236	0.3025		
SR3020	TO3P	20V 30A U_{FM} 0.65V/15A I_{FM} 300A I_R 10mA, Schottky	0.4637	0.4134	0.3864		
SR3060	TO3P	60V 30A U_{FM} 0.75V/15A I_{FM} 300A I_R 10mA, Schottky	0.4927	0.4393	0.4106		
Diodes SMD			1-9	10-99	100-499	500-2999	3000+
BAP64-03 SMD (SOD323)	SOD323	PIN 175V 100mA 500mW	0.185	0.130	0.120	0.111	0.1029
BAV70 SMD (SOT23)	SOT23	75V 2x125mA OC 4ns 1.5pF 250mW	0.036	0.018	0.014	0.013	0.0121
BAV99 SMD (SOT23)	SOT23	75V 2x125mA 4ns 1.5 pF 200mW	0.038	0.018	0.015	0.013	0.0126
BAW56 SMD (SOT23)	SOT23	75V 2x125mA OA 4ns 2pF 250mW	0.036	0.018	0.014	0.013	0.0121
BAS16 SMD (SOT23)	SOT23	75V 215mA 4ns 1.5pF 250mW	0.036	0.018	0.014	0.013	0.0120
BAS85 SMD (Mini Melf)	SOD80	Schottky 30V 0.2A I_{fm} 0.4A U_{fm} 0.4V/10mA; 10pF	0.121	0.058	0.046	0.043	0.0403
BAT42 SMD (TMMBAT42)	SOD80	Schottky 30V 0.2A I_{fm} 0.5A U_{fm} 0.4V/10mA; 5ns 7pF	0.143	0.069	0.055	0.050	0.0476
BAT54 SMD (SOT23)	SOT23	Schottky 30V 200mA 5ns 10pF	0.029	0.020	0.019	0.017	0.0162
BAT54A SMD (SOT23)	SOT23	Schottky 30V 2x200mA 5ns 10pF	0.046	0.033	0.030	0.028	0.0258
LL4148 SMD			1-9	10-99	100-499	500-2499	2500+
LL4148 SMD MBR	SOD80C	75V 300mA 4ns 4pF, mini-melf	0.031	0.012	0.0075	0.0065	0.0061
MCL4148 SMD MBR	SOD323	75V 300mA 4ns 4pF, mini-melf	0.037	0.015	0.0089	0.0078	0.0073
		100V 150mA 4ns 4pF, micro-melf	0.099	0.040	0.0241	0.0209	0.0198
1N5819 SMD (MELF)			1-9	10-99	100-999	1000-4999	5000+
1N5819(SS14)SMD(SMA)	MELF	40V 1A U_{FM} 0.6V/1A I_{FM} 30A I_R 1mA, Schottky	0.043	0.030	0.028	0.026	0.0241
	SMA	40V 1A U_{FM} 0.6V/1A I_{FM} 30A I_R 1mA, Schottky	0.037	0.026	0.024	0.022	0.0207
S1G SMD (SMA)	SMA	400V 1A U_{FM} 1.1V/1A I_{FM} 30A I_R 5uA	0.028	0.019	0.0164	0.0148	0.0141
1N4007 SMD (MELF)	MELF	1000V 1A U_{FM} 1.1V/1A I_{FM} 30A I_R 5uA	0.037	0.025	0.0219	0.0196	0.0187
1N4007 SMD (SMA)	SMA	1000V 1A U_{FM} 1.1V/1A I_{FM} 30A I_R 5uA	0.022	0.0148	0.0131	0.0118	0.0112
G7 SMD (SMA)	SMA	1000V 1A U_{FM} 1.1V/1A I_{FM} 30A I_R 5uA, Glass passiv.	0.028	0.019	0.0167	0.0150	0.0142
F7 SMD (SMA)	SMA	1000V 1A U_{FM} 1.3V/1A I_{FM} 30A I_R 5uA 50nS, Fast	0.064	0.042	0.0374	0.0336	0.0320
S2A SMD (SMB)	SMB	50V 1.5A U_{FM} 1.15V/1.5A I_{FM} 50A I_R 1uA	0.030	0.027	0.0232	0.0215	
S3M SMD (SMC)	SMC	1000V 3A U_{FM} 1.15V/3A I_{FM} 100A I_R 1uA	0.070	0.063	0.0538	0.0498	
1N5822(SS34)SMD(SMC)	SMC	40V 3A U_{FM} 0.7V/3A I_{FM} 100A I_R 0.5mA, Schottky	0.099	0.090	0.076	0.071	
ZC931 SMD (SOT23)	SOT23	Varicap 12Vmax,min.6.5pF-max.7.8pF(2.5V)	0.611	0.557	0.489	0.453	
Diode array			1-24	25-99	100+		
DALC112S1	SO8	Diode array	1.063	0.940	0.817		
Bridge Rectifiers			1-9	10-99	100-499	500+	1000+
B4S SMD (DB1MS)	DB1MS	400V 0.5A U_{FM} 1.1V/0.5A I_{FM} 30A I_R 5uA	0.0843	0.0752	0.0692	0.0632	0.0602
B8S SMD (DB1MS)	DB1MS	800V 0.5A U_{FM} 1.1V/0.5A I_{FM} 30A I_R 5uA	0.1020	0.0911	0.0838	0.0765	0.0728
DB104	DB1	400V 1A U_{FM} 1.1V/1A I_{FM} 50A I_R 10uA	0.089	0.079	0.073	0.067	0.0633
DB107(DI108)	DB1	1000V 1A U_{FM} 1.1V/1A I_{FM} 50A I_R 10uA	0.089	0.079	0.073	0.067	0.0633
DB104S SMD (DB1S)	DB1S	400V 1A U_{FM} 1.1V/1A I_{FM} 30A I_R 10uA	0.087	0.078	0.072	0.065	0.0623
DB106S SMD (DB1S)	DB1S	800V 1A U_{FM} 1.1V/1A I_{FM} 30A I_R 10uA	0.0885	0.0790	0.0727	0.0664	0.0632
DB151S SMD (DB-S)	DB-S	50V 1.5A U_{FM} 1.1V/1.5A I_{FM} 30A I_R 10uA	0.0899	0.0803	0.0739	0.0674	0.0642
W04M	WOM	400V 1.5A U_{FM} 1V/1A I_{FM} 50A I_R 10uA	0.0686	0.0612	0.0563	0.0514	0.0490
W08M	WOM	800V 1.5A U_{FM} 1V/1A I_{FM} 50A I_R 10uA	0.0719	0.0642	0.0591	0.0539	0.0514
W10M	WOM	1000V 1.5A U_{FM} 1V/1A I_{FM} 50A I_R 10uA	0.0760	0.0678	0.0624	0.0570	0.0543

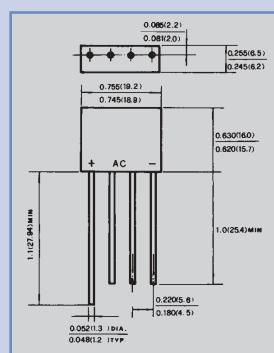
Bridge Rectifiers



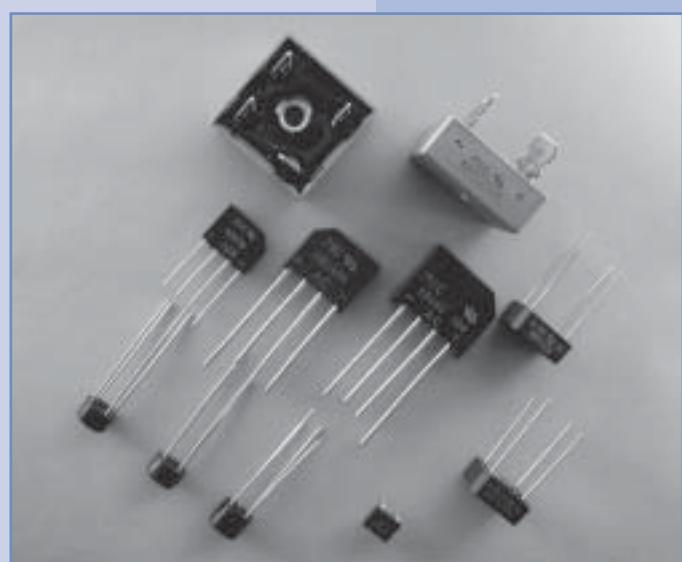
DBxxx



KBPxxx

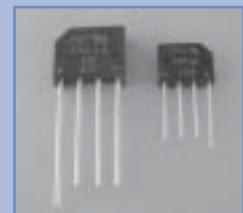


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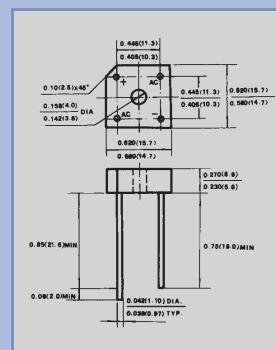


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W04M



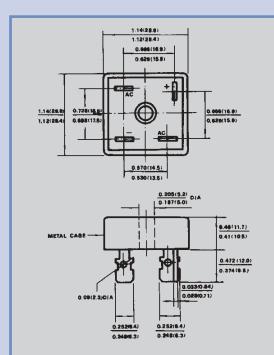
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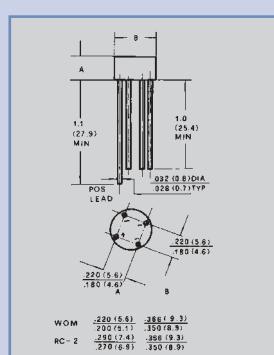
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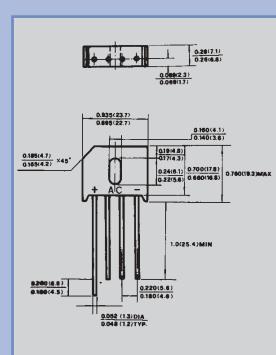
KBPC2504



KBPCxxxx



Wxx/2Wxx



KBUxxx

Bridge Rectifiers			1-9	10-99	100-499	500+	1000+
2W04M	RC2	400V 2A U_{FM} 1V/1A I_{FM} 50A I_R 10uA	0.0701	0.0626	0.0576	0.0526	0.0501
2W10M	RC2	1000V 2A U_{FM} 1V/1A I_{FM} 50A I_R 10uA	0.0762	0.0680	0.0626	0.0572	0.0544
			1-4	5-24	25-99	100+	
KBP200(KBP005)	RS2	50V 2A U_{FM} 1V/1A I_{FM} 50A I_R 10uA	0.0941	0.0801	0.0766	0.0697	
KBP204(KBP04)	RS2	400V 2A U_{FM} 1V/1A I_{FM} 50A I_R 10uA	0.0987	0.0841	0.0804	0.0731	
KBP208(KBP08)	RS2	800V 2A U_{FM} 1V/1A I_{FM} 50A I_R 10uA	0.0993	0.0845	0.0809	0.0735	
KBP210(KBP10)	RS2	1000V 2A U_{FM} 1V/1A I_{FM} 50A I_R 10uA	0.1025	0.0873	0.0835	0.0759	
KBPC304(KBPC104)	BR3	400V 3A U_{FM} 1V/1.5A I_{FM} 50A I_R 10uA	0.1061	0.0904	0.0865	0.0786	
KBPC310(KBPC110)	BR3	1000V 3A U_{FM} 1V/1.5A I_{FM} 50A I_R 10uA	0.1153	0.0982	0.0940	0.0854	
KBL400(KBL005)	RS4	50V 4A U_{FM} 1V/3A I_{FM} 150A I_R 10uA	0.2422	0.2064	0.1974	0.1794	
KBL404(KBL04)	RS4	400V 4A U_{FM} 1V/3A I_{FM} 150A I_R 10uA	0.2399	0.2044	0.1955	0.1777	
KBL410(KBL10)	RS4	1000V 4A U_{FM} 1V/3A I_{FM} 150A I_R 10uA	0.2694	0.2295	0.2195	0.1996	
KBU6M	RS6	1000V 6A U_{FM} 1V/3A I_{FM} 150A I_R 10uA	0.2783	0.2419	0.2248	0.2141	
KBU8G(KBU804)	RS6	400V 8A U_{FM} 1V/4A I_{FM} 150A I_R 10uA	0.2838	0.2467	0.2292	0.2183	
KBU8M(KBU810)	RS6	1000V 8A U_{FM} 1V/4A I_{FM} 150A I_R 10uA	0.2897	0.2518	0.2340	0.2228	
KBPC604	BR6	400V 6A U_{FM} 1V/3A I_{FM} 125A I_R 10uA	0.2210	0.1921	0.1785	0.1700	
KBPC608	BR6	800V 6A U_{FM} 1V/3A I_{FM} 125A I_R 10uA	0.2291	0.1991	0.1850	0.1762	
KBPC2501	MB25	100V 25A U_{FM} 1.1V/12.5A I_{FM} 300A I_R 10uA	0.7869	0.6840	0.6356	0.6053	
KBPC2502	MB25	200V 25A U_{FM} 1.1V/12.5A I_{FM} 300A I_R 10uA	0.7877	0.6847	0.6362	0.6059	
KBPC2504	MB25	400V 25A U_{FM} 1.1V/12.5A I_{FM} 300A I_R 10uA	0.7884	0.6853	0.6368	0.6065	
KBPC2504W	MB25W	400V 25A U_{FM} 1.1V/12.5A I_{FM} 300A I_R 10uA, Wire Type	0.7860	0.6832	0.6349	0.6046	
KBPC3501	MB35	100V 35A U_{FM} 1.1V/17.5A I_{FM} 400A I_R 10uA	0.7930	0.6893	0.6405	0.6100	
KBPC3504	MB35	400V 35A U_{FM} 1.1V/17.5A I_{FM} 400A I_R 10uA	0.7937	0.6899	0.6411	0.6105	
KBPC3508	MB35	800V 35A U_{FM} 1.1V/17.5A I_{FM} 400A I_R 10uA	0.7944	0.6905	0.6417	0.6111	
KBPC3510	MB35	1000V 35A U_{FM} 1.1V/17.5A I_{FM} 400A I_R 10uA	0.7952	0.6912	0.6422	0.6117	
KBPC3510W	MB35W	1000V 35A U_{FM} 1.1V/17.5A I_{FM} 400A I_R 10uA, Wire Type	0.7875	0.6845	0.6361	0.6058	
MB5010	MB50	1000V 50A U_{FM} 1.1V/25A I_{FM} 400A I_R 10uA	0.9780	0.8501	0.7899	0.7523	
SKD 25/16		1600V 20A U_{FM} 2.2V/150A I_{FM} 370A 3-PHASE	12.3464	11.4204	10.8031	10.2886	
Diacs			1-9	10-99	100-999	1000+	5000+
DB3 MBR	DO35	32V 2A	0.041	0.027	0.024	0.022	0.0203
DB3	DO35	32V 2A	0.028	0.019	0.016	0.015	0.0141
Thyristors			1-24	25-99	100+	500+	
BT169D	TO92	0.8A 400V lgt 200uA	0.091	0.081	0.072	0.067	
C106M1	TO126	4A 600V lgt 200uA	0.235	0.209	0.186	0.174	
BT151-800R	TO220AB	12A 800V lgt 15mA	0.438	0.390	0.347	0.325	
			1-4	5-24	25-99	100+	
SKDT 230/08	SEMIPONT	Thyristor/diode module 230A 800V	84.096	77.789	73.584	70.080	
SKKH 15/12 E	SEMIPAK	Thyristor/diode module 15A 1200V	22.620	20.923	19.792	18.850	
SKKT 27B08 D	SEMIPAK	Thyristor module 50A 800V	25.011	23.135	21.884	20.842	
SKKT 92B12 E	SEMIPAK	Thyristor module 150A 1200V	37.537	34.722	32.845	31.281	
SKKT 57B12 E	SEMIPAK	Thyristor module 95A 1200V	31.316	28.967	27.402	26.097	
SKKT 42B12 E	SEMIPAK	Thyristor module 75A 1200V	28.946	26.775	25.328	24.122	
SKKT 162/12 E	SEMIPAK	Thyristor module 250A 1200V	90.140	83.379	78.872	75.116	
Triacs			1-24	25-99	100+	500+	
MAC97A8	TO92	600V 0.6A lgt 5mA	0.122	0.109	0.097	0.090	
BT136-600	TO220AB	600V 4A lgt 35mA	0.326	0.290	0.258	0.242	
BTA06-600C	TO220AB	600V 6A lgt 35mA isolated 2.5kV	0.433	0.385	0.343	0.321	
BTA12-600B	TO220AB	600V 12A lgt 50mA isolated 2.5kV	0.544	0.484	0.431	0.403	
BTA16-600B	TO220AB	600V 16A lgt 50mA isolated 2.5kV	0.705	0.627	0.559	0.522	
BTA26-600B	TOP3	600V 25A lgt 50mA isolated 2.5kV	2.136	1.898	1.693	1.582	
BTA40-700B	RD91	700V 40A lgt 50mA isolated 2.5kV	6.850	6.060	5.269		
BTA41-600B	TOP3	600V 40A lgt 50mA isolated 2.5kV	2.387	2.121	1.892	1.768	
Zener Diodes 500 mW DO35 PHILIPS /VISHAY			1-9	10-99	100-999	1000-4999	5000+
BZX55(79)C2V4 MBR	DO35	2.4V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C2V7 MBR	DO35	2.7V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C3V0 MBR	DO35	3.0V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C3V3 MBR	DO35	3.3V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C3V6 MBR	DO35	3.6V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C3V9 MBR	DO35	3.9V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C4V3 MBR	DO35	4.3V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C4V7 MBR	DO35	4.7V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C5V1 MBR	DO35	5.1V 500mW	0.027	0.018	0.016	0.015	0.014

Zener Diodes 500 mW DO35 PHILIPS /VISHAY

			1-9	10-99	100-999	1000-4999	5000+
BZX55(79)C5V6 MBR	DO35	5.6V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C6V2 MBR	DO35	6.2V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C6V8 MBR	DO35	6.8V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C7V5 MBR	DO35	7.5V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C8V2 MBR	DO35	8.2V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C9V1 MBR	DO35	9.1V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C10 MBR	DO35	10V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C11 MBR	DO35	11V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C12 MBR	DO35	12V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C13 MBR	DO35	13V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C15 MBR	DO35	15V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C16 MBR	DO35	16V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C18 MBR	DO35	18V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C20 MBR	DO35	20V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C22 MBR	DO35	22V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C24 MBR	DO35	24V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C27 MBR	DO35	27V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C30 MBR	DO35	30V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C33 MBR	DO35	33V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C36 MBR	DO35	36V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C39 MBR	DO35	39V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C43 MBR	DO35	43V 500mW	0.027	0.018	0.016	0.015	0.014
BZX55(79)C47 MBR	DO35	47V 500mW	0.027	0.018	0.016	0.015	0.014

Zener Diodes 500mW DO35

			1-9	10-99	100-999	1000-4999	5000+
BZX55C2V4	DO35	2.4V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C2V7	DO35	2.7V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C3V0	DO35	3.0V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C3V3	DO35	3.3V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C3V6	DO35	3.6V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C3V9	DO35	3.9V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C4V3	DO35	4.3V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C4V7	DO35	4.7V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C5V1	DO35	5.1V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C5V6	DO35	5.6V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C6V2	DO35	6.2V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C6V8	DO35	6.8V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C7V5	DO35	7.5V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C8V2	DO35	8.2V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C9V1	DO35	9.1V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C10	DO35	10V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C11	DO35	11V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C12	DO35	12V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C13	DO35	13V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C15	DO35	15V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C18	DO35	18V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C20	DO35	20V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C24	DO35	24V 500mW	0.0190	0.0124	0.0109	0.0098	0.0094
BZX55C27	DO35	27V 500mW	0.0200	0.0134	0.0118	0.0106	0.0101
BZX55C30	DO35	30V 500mW	0.0200	0.0134	0.0118	0.0106	0.0101
BZX55C33	DO35	33V 500mW	0.0200	0.0134	0.0118	0.0106	0.0101
BZX55C36	DO35	36V 500mW	0.0200	0.0134	0.0118	0.0106	0.0101
BZX55C39	DO35	39V 500mW	0.0200	0.0134	0.0118	0.0106	0.0101
BZX55C43	DO35	43V 500mW	0.0220	0.0146	0.0130	0.0116	0.0111
BZX55C47	DO35	47V 500mW	0.0220	0.0146	0.0130	0.0116	0.0111
BZX55C51	DO35	51V 500mW	0.0220	0.0146	0.0130	0.0116	0.0111
BZX55C56	DO35	56V 500mW	0.0220	0.0146	0.0130	0.0116	0.0111
BZX55C62	DO35	62V 500mW	0.0220	0.0146	0.0130	0.0116	0.0111
BZX55C68	DO35	68V 500mW	0.0220	0.0146	0.0130	0.0116	0.0111
BZX55C75	DO35	75V 500mW	0.0220	0.0146	0.0130	0.0116	0.0111

Zener Diodes 500 mW DO34 ROHM

			1-9	10-99	100-999	1000-4999	5000+
ZD3.6V 0.5W ROHM	DO34	3.6V 500mW 100Ohm/5mA 10uA/1V	0.023	0.015	0.013	0.012	0.012
ZD3.9V 0.5W ROHM	DO34	3.9V 500mW 100Ohm/5mA 5uA/1V	0.023	0.015	0.013	0.012	0.012
ZD4.3V 0.5W ROHM	DO34	4.3V 500mW 100Ohm/5mA 5uA/1V	0.023	0.015	0.013	0.012	0.012
ZD4.7V 0.5W ROHM	DO34	4.7V 500mW 80 Ohm/5mA 5uA/1V	0.023	0.015	0.013	0.012	0.012
ZD5.1V 0.5W ROHM	DO34	5.1V 500mW 70 Ohm/5mA 5uA/1.5V	0.023	0.015	0.013	0.012	0.012
ZD5.6V 0.5W ROHM	DO34	5.6V 500mW 40 Ohm/5mA 5uA/2.5V	0.023	0.015	0.013	0.012	0.012
ZD6.2V 0.5W ROHM	DO34	6.2V 500mW 30 Ohm/5mA 5uA/3V	0.023	0.015	0.013	0.012	0.012
ZD6.8V 0.5W ROHM	DO34	6.8V 500mW 20 Ohm/5mA 2uA/3.5V	0.023	0.015	0.013	0.012	0.012
ZD7.5V 0.5W ROHM	DO34	7.5V 500mW 20 Ohm/5mA 0.5uA/4V	0.023	0.015	0.013	0.012	0.012
ZD8.2V 0.5W ROHM	DO34	8.2V 500mW 20 Ohm/5mA 0.5uA/5V	0.023	0.015	0.013	0.012	0.012
ZD9.1V 0.5W ROHM	DO34	9.1V 500mW 20 Ohm/5mA 0.5uA/6V	0.023	0.015	0.013	0.012	0.012
ZD10V 0.5W ROHM	DO34	10V 500mW 20 Ohm/5mA 0.2uA/7V	0.023	0.015	0.013	0.012	0.012
ZD12V 0.5W ROHM	DO34	12V 500mW 25 Ohm/5mA 0.2uA/9V	0.023	0.015	0.013	0.012	0.012
ZD15V 0.5W ROHM	DO34	15V 500mW 25 Ohm/5mA 0.2uA/11V	0.023	0.015	0.013	0.012	0.012
ZD18V 0.5W ROHM	DO34	18V 500mW 30 Ohm/5mA 0.2uA/13V	0.023	0.015	0.013	0.012	0.012
ZD24V 0.5W ROHM	DO34	24V 500mW 35 Ohm/5mA 0.2uA/19V	0.023	0.015	0.013	0.012	0.012
ZD33V 0.5W ROHM	DO34	33V 500mW 65 Ohm/5mA 0.2uA/25V	0.023	0.015	0.013	0.012	0.012
ZD39V 0.5W ROHM	DO34	39V 500mW 85 Ohm/5mA 0.2uA/30V	0.023	0.015	0.013	0.012	0.012

Zener Diodes 1.3 W MOTOROLA /PHILIPS /VISHAY

			1-9	10-99	100-999	1000+
BZX85C2V7 MBR	DO41	2.7V 1.3W 2%	0.053	0.043	0.032	0.029
1N4728/BZX85C3V3 MBR	DO41	3.3V 1.3W 5%	0.053	0.043	0.032	0.029
1N4729/BZX85C3V6 MBR	DO41	3.6V 1.3W 5%	0.053	0.043	0.032	0.029
1N4730/BZX85C3V9 MBR	DO41	3.9V 1.3W 5%	0.053	0.043	0.032	0.029
1N4731/BZX85C4V3 MBR	DO41	4.3V 1.3W 5%	0.053	0.043	0.032	0.029
1N4732/BZX85C4V7 MBR	DO41	4.7V 1.3W 5%	0.053	0.043	0.032	0.029
1N4733/BZX85C5V1 MBR	DO41	5.1V 1.3W 5%	0.053	0.043	0.032	0.029
1N4734/BZX85C5V6 MBR	DO41	5.6V 1.3W 5%	0.053	0.043	0.032	0.029
1N4735/BZX85C6V2 MBR	DO41	6.2V 1.3W 5%	0.053	0.043	0.032	0.029
1N4736/BZX85C6V8 MBR	DO41	6.8V 1.3W 5%	0.053	0.043	0.032	0.029
1N4737/BZX85C7V5 MBR	DO41	7.5V 1.3W 5%	0.053	0.043	0.032	0.029
1N4738/BZX85C8V2 MBR	DO41	8.2V 1.3W 5%	0.053	0.043	0.032	0.029
1N4739/BZX85C9V1 MBR	DO41	9.1V 1.3W 5%	0.053	0.043	0.032	0.029
1N4740/BZX85C10 MBR	DO41	10V 1.3W 5%	0.053	0.043	0.032	0.029
1N4741/BZX85C11 MBR	DO41	11V 1.3W 5%	0.053	0.043	0.032	0.029
1N4742/BZX85C12 MBR	DO41	12V 1.3W 5%	0.053	0.043	0.032	0.029
1N4743/BZX85C13 MBR	DO41	13V 1.3W 5%	0.053	0.043	0.032	0.029
1N4744/BZX85C15 MBR	DO41	15V 1.3W 5%	0.053	0.043	0.032	0.029
1N4745/BZX85C16 MBR	DO41	16V 1.3W 5%	0.053	0.043	0.032	0.029
1N4746/BZX85C18 MBR	DO41	18V 1.3W 5%	0.053	0.043	0.032	0.029
1N4747/BZX85C20 MBR	DO41	20V 1.3W 5%	0.053	0.043	0.032	0.029
1N4748/BZX85C22 MBR	DO41	22V 1.3W 5%	0.053	0.043	0.032	0.029
1N4749/BZX85C24 MBR	DO41	24V 1.3W 5%	0.053	0.043	0.032	0.029
1N4750/BZX85C27 MBR	DO41	27V 1.3W 5%	0.053	0.043	0.032	0.029
1N4751/BZX85C30 MBR	DO41	30V 1.3W 5%	0.053	0.043	0.032	0.029
1N4752/BZX85C33 MBR	DO41	33V 1.3W 5%	0.053	0.043	0.032	0.029
1N4753/BZX85C36 MBR	DO41	36V 1.3W 5%	0.053	0.043	0.032	0.029
1N4754/BZX85C39 MBR	DO41	39V 1.3W 5%	0.053	0.043	0.032	0.029
1N4755/BZX85C43 MBR	DO41	43V 1.3W 5%	0.053	0.043	0.032	0.029
1N4756/BZX85C47 MBR	DO41	47V 1.3W 5%	0.053	0.043	0.032	0.029
1N4757/BZX85C51 MBR	DO41	51V 1.3W 5%	0.053	0.043	0.032	0.029
1N4758/BZX85C56 MBR	DO41	56V 1.3W 5%	0.053	0.043	0.032	0.029
1N4759/BZX85C62 MBR	DO41	62V 1.3W 5%	0.053	0.043	0.032	0.029
1N4760/BZX85C68 MBR	DO41	68V 1.3W 5%	0.053	0.043	0.032	0.029
1N4761/BZX85C75 MBR	DO41	75V 1.3W 5%	0.059	0.047	0.036	0.033

Zener Diodes 1.0W

			1-9	10-99	100-999	1000+
1N4728	DO41	3.3V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4729	DO41	3.6V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4730	DO41	3.9V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4731	DO41	4.3V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4732	DO41	4.7V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4733	DO41	5.1V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4734	DO41	5.6V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4735	DO41	6.2V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4736	DO41	6.8V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4737	DO41	7.5V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4738	DO41	8.2V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4739	DO41	9.1V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4740	DO41	10V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4741	DO41	11V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4742	DO41	12V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4743	DO41	13V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4744	DO41	15V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4745	DO41	16V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4746	DO41	18V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4747	DO41	20V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4748	DO41	22V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4749	DO41	24V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4750	DO41	27V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4751	DO41	30V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4752	DO41	33V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4753	DO41	36V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4754	DO41	39V 1.0W 10%	0.0348	0.0280	0.0213	0.0193
1N4755	DO41	43V 1.0W 10%	0.0369	0.0298	0.0226	0.0205
1N4756	DO41	47V 1.0W 10%	0.0369	0.0298	0.0226	0.0205
1N4757	DO41	51V 1.0W 10%	0.0369	0.0298	0.0226	0.0205
1N4758	DO41	56V 1.0W 10%	0.0380	0.0306	0.0233	0.0211
1N4759	DO41	62V 1.0W 10%	0.0380	0.0306	0.0233	0.0211
1N4760	DO41	68V 1.0W 10%	0.0380	0.0306	0.0233	0.0211
1N4761	DO41	75V 1.0W 10%	0.0380	0.0306	0.0233	0.0211
1N4762	DO41	82V 1.0W 10%	0.0380	0.0306	0.0233	0.0211

Zener Diodes 500mW MINI-MELF(SOD-80C) PHILIPS

			1-9	10-99	100-499	500-2499	2500+
BZV55C2V4	SOD80C	500 mW 5% 2.4V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C2V7	SOD80C	500 mW 5% 2.7V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C3V0	SOD80C	500 mW 5% 3V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C3V3	SOD80C	500 mW 5% 3.3V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C3V6	SOD80C	500 mW 5% 3.6V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C3V9	SOD80C	500 mW 5% 3.9V minimelf	0.034	0.024	0.021	0.019	0.017

Zener Diodes 500mW MINI-MELF(SOD-80C) PHILIPS

			1-9	10-99	100-499	500-2499	2500+
BZV55C4V3	SOD80C	500 mW 5% 4.3V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C4V7	SOD80C	500 mW 5% 4.7V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C5V1	SOD80C	500 mW 5% 5.1V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C5V6	SOD80C	500 mW 5% 5.6V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C6V2	SOD80C	500 mW 5% 6.2V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C6V8	SOD80C	500 mW 5% 6.8V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C7V5	SOD80C	500 mW 5% 7.5V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C8V2	SOD80C	500 mW 5% 8.2V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C9V1	SOD80C	500 mW 5% 9.1V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C10	SOD80C	500 mW 5% 10V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C11	SOD80C	500 mW 5% 11V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C12	SOD80C	500 mW 5% 12V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C13	SOD80C	500 mW 5% 13V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C15	SOD80C	500 mW 5% 15V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C18	SOD80C	500 mW 5% 18V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C20	SOD80C	500 mW 5% 20V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C24	SOD80C	500 mW 5% 24V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C27	SOD80C	500 mW 5% 27V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C30	SOD80C	500 mW 5% 30V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C33	SOD80C	500 mW 5% 33V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C39	SOD80C	500 mW 5% 39V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C47	SOD80C	500 mW 5% 47V minimelf	0.034	0.024	0.021	0.019	0.017
BZV55C75	SOD80C	500 mW 5% 75V minimelf	0.034	0.024	0.021	0.019	0.017

Zener Diodes 250mW SMD SOT-23

			1-9	10-99	100-499	500-2999	3000+
BZX84C2V7	SOT23	2.7V 5% 250mW	0.036	0.026	0.022	0.021	0.018
BZX84C3V3	SOT23	3.3V 5% 250mW	0.036	0.025	0.022	0.021	0.018
BZX84C3V6	SOT23	3.6V 5% 250mW	0.036	0.025	0.022	0.021	0.018
BZX84C3V9	SOT23	3.9V 5% 250mW	0.036	0.025	0.022	0.021	0.018
BZX84C4V3	SOT23	4.3V 5% 250mW	0.036	0.025	0.022	0.021	0.018
BZX84C4V7	SOT23	4.7V 5% 250mW	0.036	0.025	0.022	0.021	0.018
BZX84C5V1	SOT23	5.1V 5% 250mW	0.036	0.025	0.022	0.021	0.018
BZX84C5V6	SOT23	5.6V 5% 250mW	0.036	0.025	0.022	0.021	0.018
BZX84C6V2	SOT23	6.2V 5% 250mW	0.036	0.026	0.022	0.021	0.018
BZX84C6V8	SOT23	6.8V 5% 250mW	0.036	0.025	0.022	0.021	0.018
BZX84C7V5	SOT23	7.5V 5% 250mW	0.036	0.025	0.022	0.021	0.018
BZX84C8V2	SOT23	8.2V 5% 250mW	0.036	0.025	0.022	0.021	0.018
BZX84C9V1	SOT23	9.1V 5% 250mW	0.036	0.025	0.022	0.021	0.018
BZX84C10	SOT23	10V 5% 250mW	0.036	0.025	0.022	0.021	0.018
BZX84C12	SOT23	12V 5% 250mW	0.036	0.026	0.022	0.021	0.018
BZX84C15	SOT23	15V 5% 250mW	0.036	0.025	0.022	0.021	0.018
BZX84C18	SOT23	18V 5% 250mW	0.036	0.025	0.022	0.021	0.018
BZX84C24	SOT23	24V 5% 250mW	0.037	0.026	0.022	0.021	0.018

Zener Diodes 200mW SMD SOD-323 ROHM

			1-9	10-99	100-499	500-2999	3000+
ZD3.9V 0.2W ROHMSMD	SOD323	3.9V 200mW	0.0450	0.0312	0.0272	0.0256	0.022
ZD4.7V 0.2W ROHMSMD	SOD323	4.7V 200mW	0.0450	0.0312	0.0272	0.0256	0.022
ZD5.1V 0.2W ROHMSMD	SOD323	5.1V 200mW	0.0450	0.0312	0.0272	0.0256	0.022
ZD5.6V 0.2W ROHMSMD	SOD323	5.6V 200mW	0.0450	0.0312	0.0272	0.0256	0.022
ZD6.2V 0.2W ROHMSMD	SOD323	6.2V 200mW	0.0450	0.0312	0.0272	0.0256	0.022
ZD6.8V 0.2W ROHMSMD	SOD323	6.8V 200mW	0.0450	0.0312	0.0272	0.0256	0.022
ZD8.2V 0.2W ROHMSMD	SOD323	8.2V 200mW	0.0450	0.0312	0.0272	0.0256	0.022
ZD12V 0.2W ROHMSMD	SOD323	12V 200mW	0.0450	0.0312	0.0272	0.0256	0.022
ZD15V 0.2W ROHMSMD	SOD323	15V 200mW	0.0450	0.0312	0.0272	0.0256	0.022
ZD24V 0.2W ROHMSMD	SOD323	24V 200mW	0.0450	0.0312	0.0272	0.0256	0.022

LCD Matrix Modules

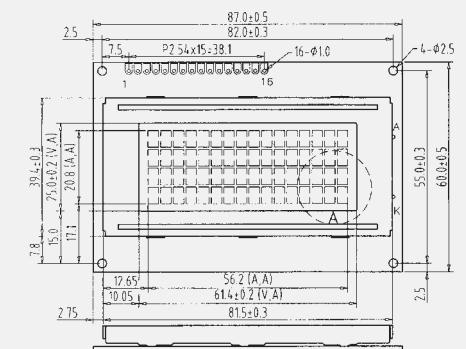
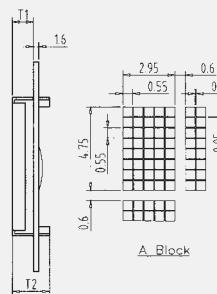
			1-4	5-24	25-99	100+
AC-082AYA		8X2 LCD STN 58.0x32.0x10.0mm, LAT+CYR FONT	4.765	4.374	4.140	3.906
AC-082AYILY-H		8X2 LCD STN 58.0x32.0x13.8mm B/L LAT+CYR FONT	4.855	4.457	4.218	3.979
AC-161AYA		16X1 LCD STN 80.0x36.0x10.0mm LAT+CYR FONT	5.622	5.161	4.885	4.608
AC-161BYA-H		16X1 LCD STN 122.0x33.0x15.5mm B/L LAT+CYR FONT	5.196	4.770	4.515	4.259
AC-161BYILY-H		16X1 LCD STN 122.0x33.0x15.5mm B/L LAT+CYR FONT	6.644	6.100	5.773	5.446
AC-162BYA-H		16X2 LCD STN 80.0x36.0x10.0mm LAT+CYR FONT	5.557	5.102	4.829	4.555
AC-162BYILY-H		16X2 LCD STN 80.0x36.0x14.5mm, B/L LAT+CYR FONT	7.326	6.725	6.365	6.005
AC-162EYILY-H		16X2 LCD STN 122.0x44.0x14.5mm, B/L LAT+CYR FONT	9.462	8.687	8.221	7.756
AC-162EYA		16X2 LCD STN 122.0x44.0x10.0mm LAT+CYR FONT	9.778	8.976	8.495	8.015
AC-164AYILY-H		16X4 LCD STN 87.0x60.0x14.0mm, B/L LAT+CYR FONT	11.965	10.985	10.396	9.808
AC-202AYA		20X2 LCD STN 116.0x37.0x10.0mm LAT+CYR FONT	7.441	6.831	6.465	6.099
AC-202AYILY-H		20X2 LCD STN 116.0x37.0x14.5mm, B/L LAT+CYR FONT	10.242	9.402	8.899	8.395
AC-202BYA-H		20X2 LCD STN 180.0x40.0x15.0mm, B/L LAT+CYR FONT	14.934	13.710	12.975	12.241
AC-202BYILY-H		20X2 LCD STN 180.0x40.0x10.0mm LAT+CYR FONT	12.618	11.584	10.963	10.343
AC-204AYILY		20X4 LCD STN 98.0x60.0x14.5mm, B/L LAT+CYR FONT	13.763	12.635	11.958	11.281
AC-204AYA		20X4 LCD STN 98.0x60.0x10.5mm LAT+CYR FONT	9.977	9.159	8.668	8.178
AC-204BYILY-H		20X4 LCD STN 146.0x62.0x14.5mm B/L LAT+CYR FONT	25.712	23.605	22.340	21.076
AC-404AYILY-H ^{NEW}		40X4 LCD STN 190.0x42.7x14.5mm B/L LAT+CYR FONT	26.645	24.461	23.150	21.840
OD-AMC1602AR-B-B6NTDW ^{NEW}		16x2 LCD STN 80x36x14mm STN Blue B/L LAT+CYR FONT	7.905	7.257	6.868	6.480
OD-AMC2002CR-B-B6NTDW ^{NEW}		20x2 LCD STN 116x37x14.5mm STN Blue B/L LAT+CYR FONT	11.108	10.198	9.651	9.105

AC-XX LCD Matrix Modules - font table

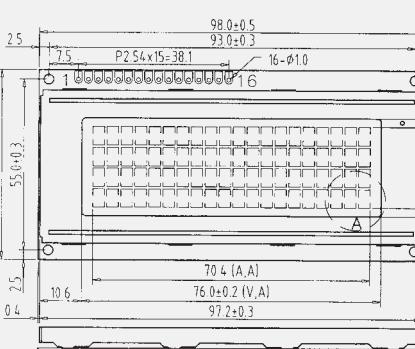
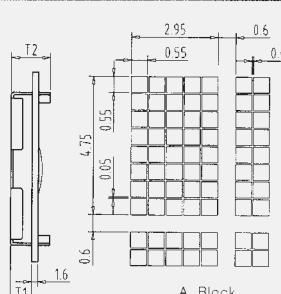
Higher 4-bit (D4 to D7) of Character Code (Hexadecimal)																
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	CG RAM (1)			8	9	P	.				B	10	4	.	2	5
1	CG RAM (2)			1	1	9	Q				7	9	2	.	0	3
2	CG RAM (3)			2	3	8	R				6	8	6	.	1	4
3	CG RAM (4)			3	4	9	S				7	9	2	.	3	5
4	CG RAM (5)			4	D	T					8	7	6	.	2	4
5	CG RAM (6)			5	E	U					9	8	3	.	1	3
6	CG RAM (7)			6	F	V					0	7	5	.	0	2
7	CG RAM (8)			7	G	W					1	8	9	.	1	1
8	CG RAM (1)			8	H	X					2	4	6	.	2	3
9	CG RAM (2)			9	I	Y					3	5	7	.	3	4
A	CG RAM (3)			J	Z						4	6	8	.	4	5
B	CG RAM (4)			K	K						5	7	9	.	5	6
C	CG RAM (5)			L	L						6	8	0	.	6	7
D	CG RAM (6)			M	M						7	9	2	.	7	8
E	CG RAM (7)			N	N						8	0	4	.	8	9
F	CG RAM (8)			O	O						9	7	6	.	9	8

LCD Matrix Modules

AC-164A

FEATURE		ELECTRICAL CHARACTERISTICS																								
		Item	Sym.	Condition	Typ.Value			Unit.																		
1. Construction : STN LCD panel, Bezel, Zebra and PCB.		LCD Driving Voltage	VDD-V0	25°C	5.0			V																		
2. Optional : LED or EL back-light.		Supply Current	IDD	VDD=5.0V	1.2			mA																		
INTERFACE																										
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16																										
VSS VDD V0 RS R/W E DB0 DB1 DB2 DB3 DB4 DB5 DB6 DB7 A/EL1 K/EL2																										
  <p>THICKNESS: VERSION T1 T2 EL&NO BACKLIGHT 5.9 ± 0.3 11.0Max LED BACK LIGHT 8.9 ± 0.3 14.0Max</p>																										

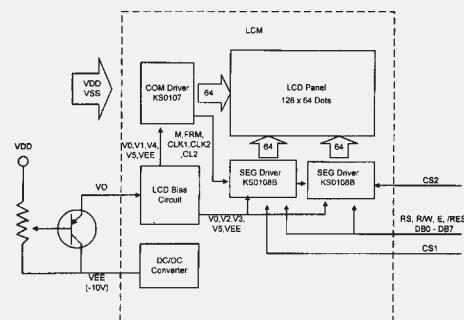
AC-204A

FEATURE		ELECTRICAL CHARACTERISTICS																								
		Item	Sym.	Condition	Typ.Value			Unit.																		
1. Construction : STN LCD panel, Bezel, Zebra and PCB.		LCD Driving Voltage	VDD-V0	25°C	5.0			V																		
2. Optional : LED or EL back-light.		Supply Current	IDD	VDD=5.0V	1.5			mA																		
INTERFACE																										
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16																										
VSS VDD V0 RS R/W E DB0 DB1 DB2 DB3 DB4 DB5 DB6 DB7 A/EL1 K/EL2																										
  <p>THICKNESS: VERSION T1 T2 EL&NO BACKLIGHT 5.4 ± 0.3 10.5Max LED BACK LIGHT 9.4 ± 0.3 14.5Max</p>																										

LCD Graphic Modules

AG-12864A**FEATURE**

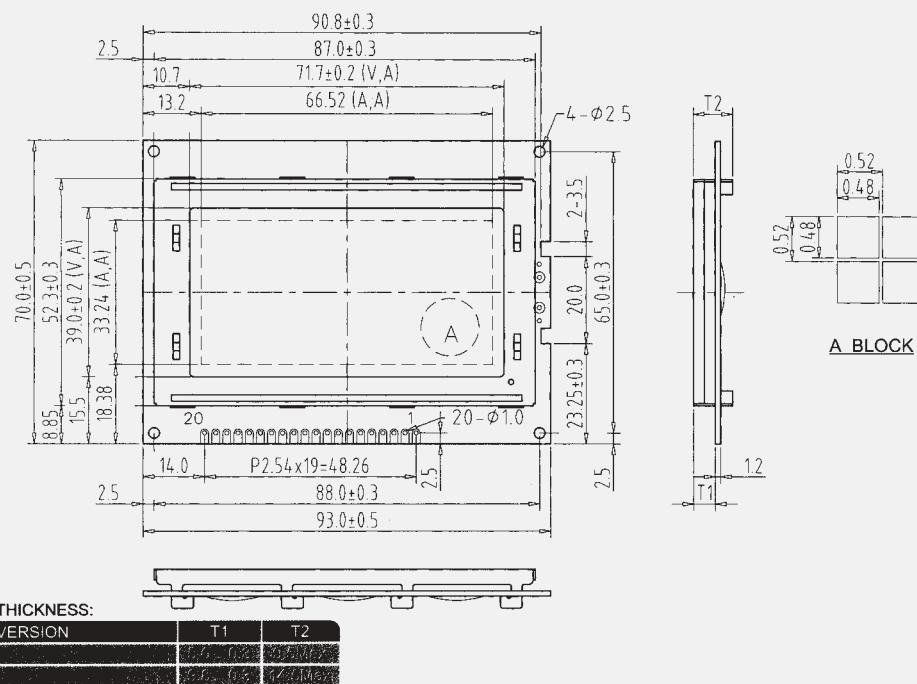
1. Construction : STN/FSTN LCD, Bezel,Zebra, Heat Seal and PCB.
2. Optional LED or EL back-light,white edge-light LED available.
3. Controller : KS0108B
4. 4.5V single power input. Built-in DC/DC converter for LCD driving.
5. Normal / Extended temperature type.

BLOCK DIAGRAM & POWER SUPPLY**ELECTRICAL CHARACTERISTICS**

Item	Symbol	Condition	Typ.Value	Unit.
LCD Driving Voltage	VDD-VO	25°C	12.2	V
Supply Current	IDD	VDD=5.0V	3.0	mA

INTERFACE

1	2	3	4	5	6	7	8	9	10
VSS	VDD	VO	RS	R/W	E	DB0	DB1	DB2	DB3
11	12	13	14	15	16	17	18	19	20
DB4	DB5	DB6	DB7	CS1	CS2	/RES	VEE	A/EL1	K/EL2



AG-16080B

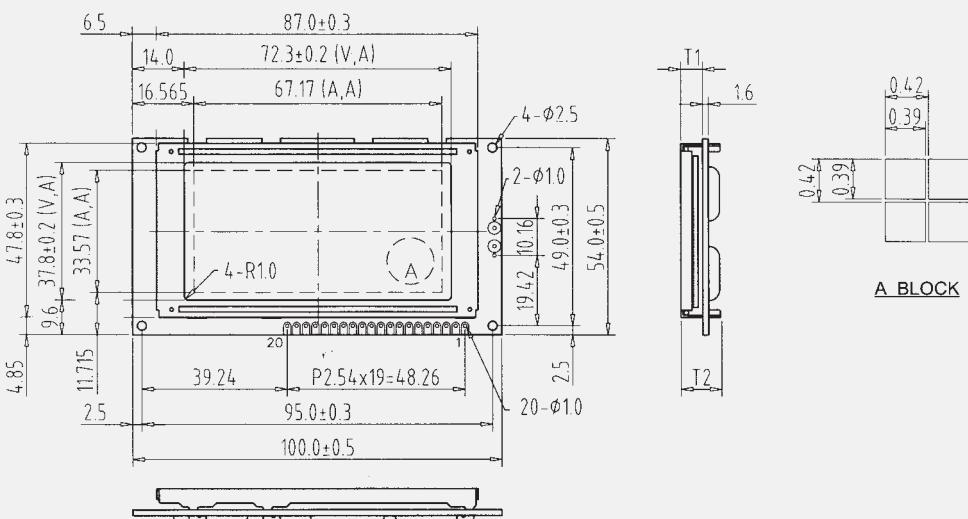
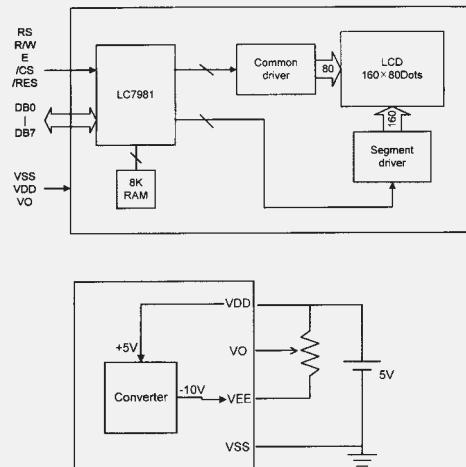
FEATURE

1. Construction : STN/FSTN LCD, Bezel, Heat Seal, Zebra and PCB.
 2. Optional LED or EL back-light.
 3. Controller : LC7981
 4. 4.5V single power input. Built-in DC/DC converter for LCD driving.
 5. Normal temperature type.

ELECTRICAL CHARACTERISTICS

Item	Symbol	Condition	Typ.Value	Unit.					
LCD Driving Voltage	VDD-VO	25°C	12.6	V					
Supply Current	IDD	VDD=5.0V	5.0	mA					
INTERFACE									
1	2	3	4	5	6	7	8	9	10
VSS	VDD	VO	RS	R/W	E	DB0	DB1	DB2	DB3
11	12	13	14	15	16	17	18	19	20
DB4	DB5	DB6	DB7	/CS	/RES	VEE	/DISPOFF	A/EL1	K/EL2

BLOCK DIAGRAM & POWER



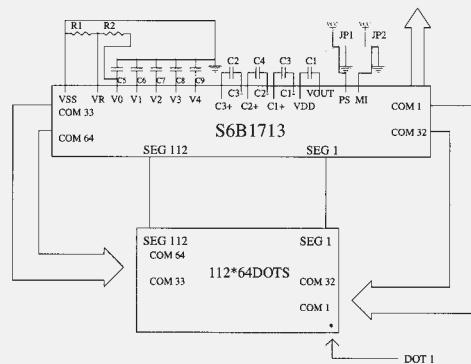
A BLOCK

THICKNESS:

VERSION	T1	T2
EL & NO BACKLIGHT	5.9±0.3	11.3Max
LED BACKLIGHT	10.0±0.3	15.3Max

AF-11264C**FEATURE**

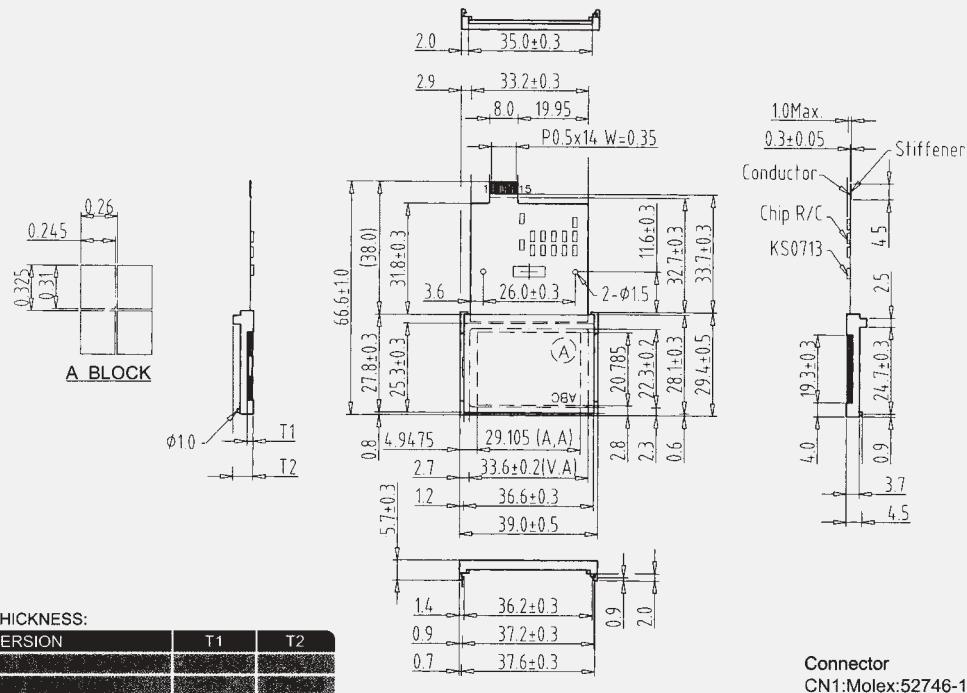
1. Construction : FSTN LCD panel, COF and LED light-guide.
2. Driver: S6B1713.
3. 3.0V power input.
4. Extended temperature type.

BLOCK DIAGRAM & POWER**ELECTRICAL CHARACTERISTICS**

Parameter	Symbol	Condition	Typ.Value	Unit.
LCD Driving Voltage	VLCD	25°C	8.8	V
Logic Supply Current	IDD	VDD=3.3V	0.2	mA

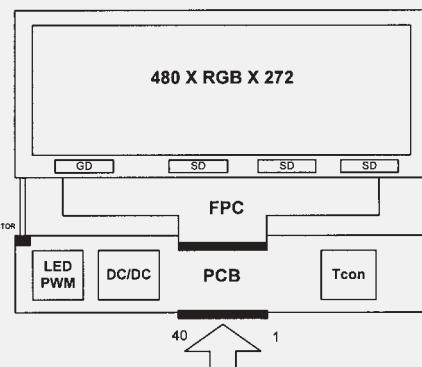
INTERFACE

1	2	3	4	5	6	7	8	9	10
/CS	/RES	A0	/WR	/RD	DO	D1	D2	D3	D4
11	12	13	14	15					
D5	D6	D7	VSS	VDD					



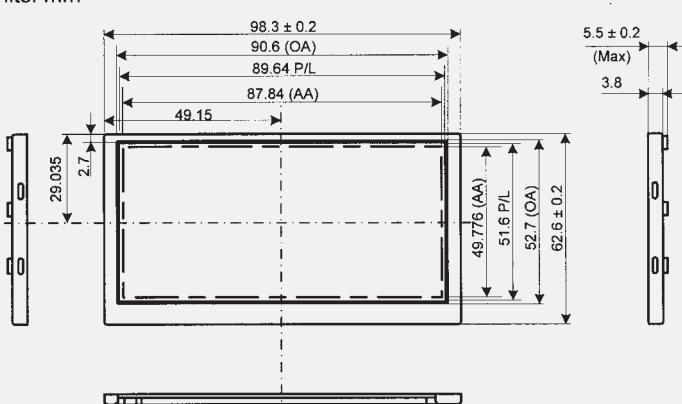
TFT LCD Graphic Modules

AM-480272ATMQW-00H * 480 x 240 dots color TFT

FEATURE:	BLOCK DIAGRAM																																																																																																																										
<p>1. Resolution 480x272 RGB; 2. Capable to visualize up to 16.7 million colors; 3. 16:9 diagonal configuration; 4. Brightness 200cd/m², contrast 300:1; 5. Integrated control circuit and LED backlight; 6. Dimensions - 98.3x62.6x5.5mm (W)x(H)x(D);</p>																																																																																																																											
ELECTRICAL CHARACTERISTICS:	<p>Power supply voltage: 3.0 ± 3.6 V Power consumption: 150 mA</p>																																																																																																																										
<table border="1"> <thead> <tr> <th>Pin No</th> <th>Name</th> <th>Description</th> </tr> </thead> <tbody> <tr><td>1</td><td>Vss</td><td>Ground</td></tr> <tr><td>2</td><td>Vss</td><td>Ground</td></tr> <tr><td>3</td><td>LED_C</td><td>LED Control signal TRL</td></tr> <tr><td>4</td><td>VCC</td><td>Power Input</td></tr> <tr><td>5</td><td>VCC</td><td>Power Input</td></tr> <tr><td>6</td><td>VCC</td><td>Power Input</td></tr> <tr><td>7</td><td>VCC</td><td>Power Input</td></tr> <tr><td>8</td><td>NC</td><td>No Connection</td></tr> <tr><td>9</td><td>DE</td><td>Data Enable Timing Signal</td></tr> <tr><td>10</td><td>Vss</td><td>Ground</td></tr> <tr><td>11</td><td>Vss</td><td>Ground</td></tr> <tr><td>12</td><td>Vss</td><td>Ground</td></tr> <tr><td>13</td><td>B5</td><td>Blue data (MSB)</td></tr> <tr><td>14</td><td>B4</td><td>Blue data</td></tr> <tr><td>15</td><td>B3</td><td>Blue data</td></tr> <tr><td>16</td><td>Vss</td><td>Ground</td></tr> <tr><td>17</td><td>B2</td><td>Blue data</td></tr> <tr><td>18</td><td>B1</td><td>Blue data</td></tr> <tr><td>19</td><td>B0</td><td>Blue data (LSB)</td></tr> <tr><td>20</td><td>Vss</td><td>Ground</td></tr> <tr><td>21</td><td>G5</td><td>Green data (MSB)</td></tr> <tr><td>22</td><td>G4</td><td>Green data</td></tr> <tr><td>23</td><td>G3</td><td>Green data</td></tr> <tr><td>24</td><td>Vss</td><td>Ground</td></tr> <tr><td>25</td><td>G2</td><td>Green data</td></tr> <tr><td>26</td><td>G1</td><td>Green data</td></tr> <tr><td>27</td><td>G0</td><td>Green data (LSB)</td></tr> <tr><td>28</td><td>Vss</td><td>Ground</td></tr> <tr><td>29</td><td>R5</td><td>Red data (MSB)</td></tr> <tr><td>30</td><td>R4</td><td>Red data</td></tr> <tr><td>31</td><td>R3</td><td>Red data</td></tr> <tr><td>32</td><td>Vss</td><td>Ground</td></tr> <tr><td>33</td><td>R2</td><td>Red data</td></tr> <tr><td>34</td><td>R1</td><td>Red data</td></tr> <tr><td>35</td><td>R0</td><td>Red data (LSB)</td></tr> <tr><td>36</td><td>Vss</td><td>Ground</td></tr> <tr><td>37</td><td>Vss</td><td>Ground</td></tr> <tr><td>38</td><td>DCLK</td><td>Data Clock</td></tr> <tr><td>39</td><td>Vss</td><td>Ground</td></tr> <tr><td>40</td><td>Vss</td><td>Ground</td></tr> </tbody> </table>	Pin No	Name	Description	1	Vss	Ground	2	Vss	Ground	3	LED_C	LED Control signal TRL	4	VCC	Power Input	5	VCC	Power Input	6	VCC	Power Input	7	VCC	Power Input	8	NC	No Connection	9	DE	Data Enable Timing Signal	10	Vss	Ground	11	Vss	Ground	12	Vss	Ground	13	B5	Blue data (MSB)	14	B4	Blue data	15	B3	Blue data	16	Vss	Ground	17	B2	Blue data	18	B1	Blue data	19	B0	Blue data (LSB)	20	Vss	Ground	21	G5	Green data (MSB)	22	G4	Green data	23	G3	Green data	24	Vss	Ground	25	G2	Green data	26	G1	Green data	27	G0	Green data (LSB)	28	Vss	Ground	29	R5	Red data (MSB)	30	R4	Red data	31	R3	Red data	32	Vss	Ground	33	R2	Red data	34	R1	Red data	35	R0	Red data (LSB)	36	Vss	Ground	37	Vss	Ground	38	DCLK	Data Clock	39	Vss	Ground	40	Vss	Ground
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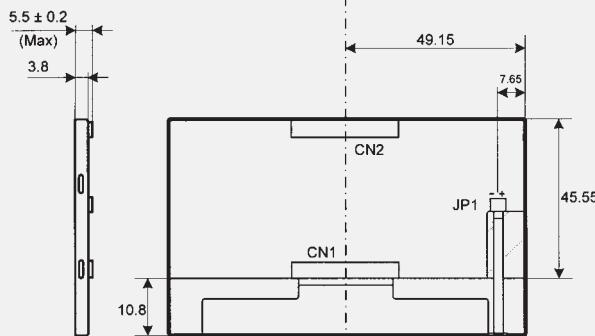
1. Front view

Units: mm



2. Back view

Units: mm



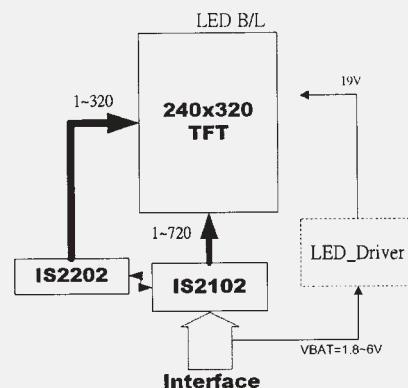
TFT LCD Graphic Modules

AM-240320DTMQW-01H * 240 x 320 dots color TFT

FEATURE:

1. 3.2" TFT display;
2. Resolution 240x320 RGB;
3. Capable to visualize up to 262K colors;
4. Viewing Direction 9 o'clock
5. Brightness 200cd/m², contrast 290:1;
6. Dimensions – 55.64x77.3x6.5 mm, (W)x(H)x(D).

BLOCK DIAGRAM

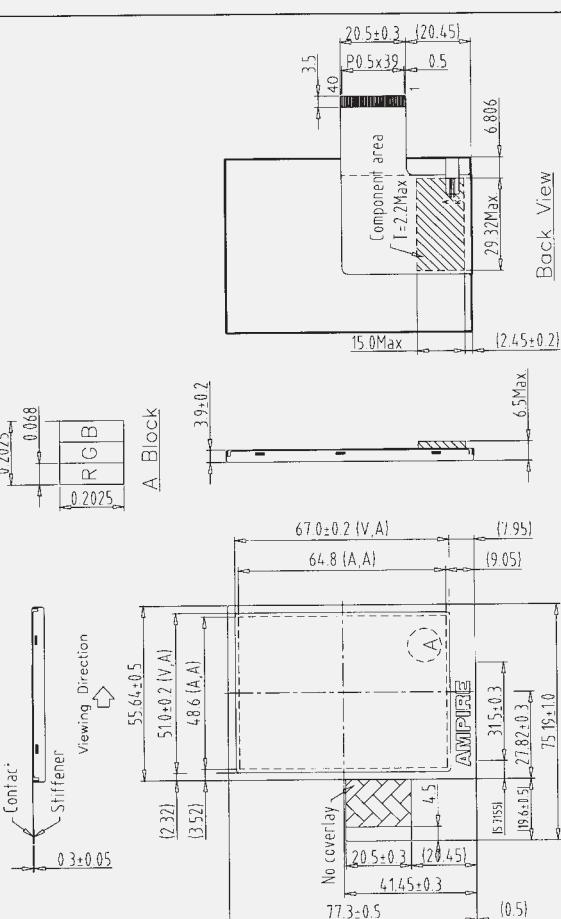


ELECTRICAL CHARACTERISTICS:

Power supply voltage: 2.5 ± 3.3 V

Power consumption: 186 mA

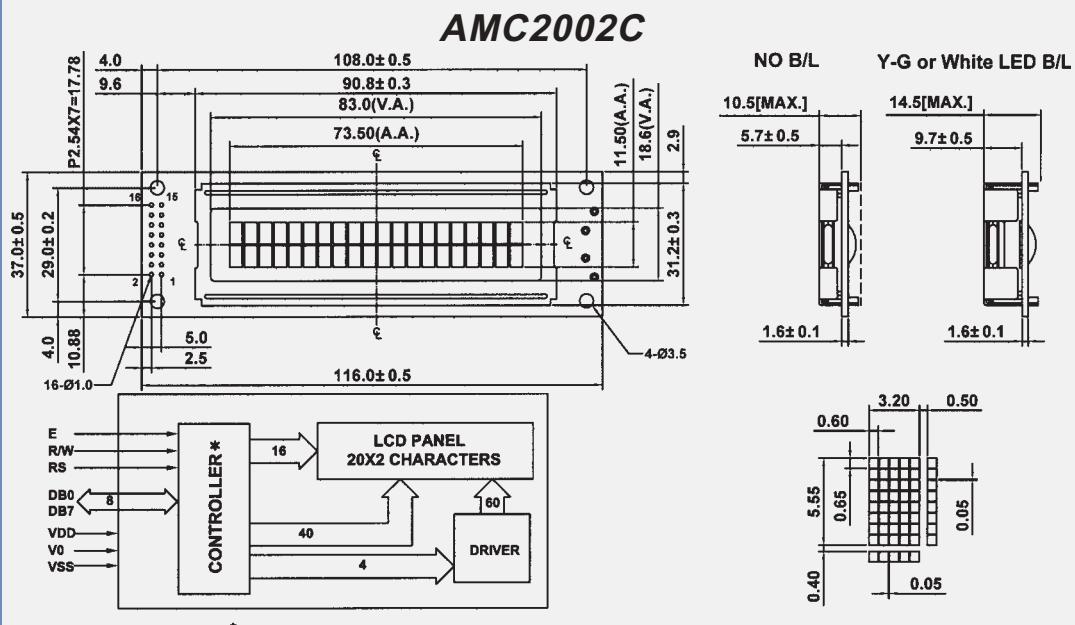
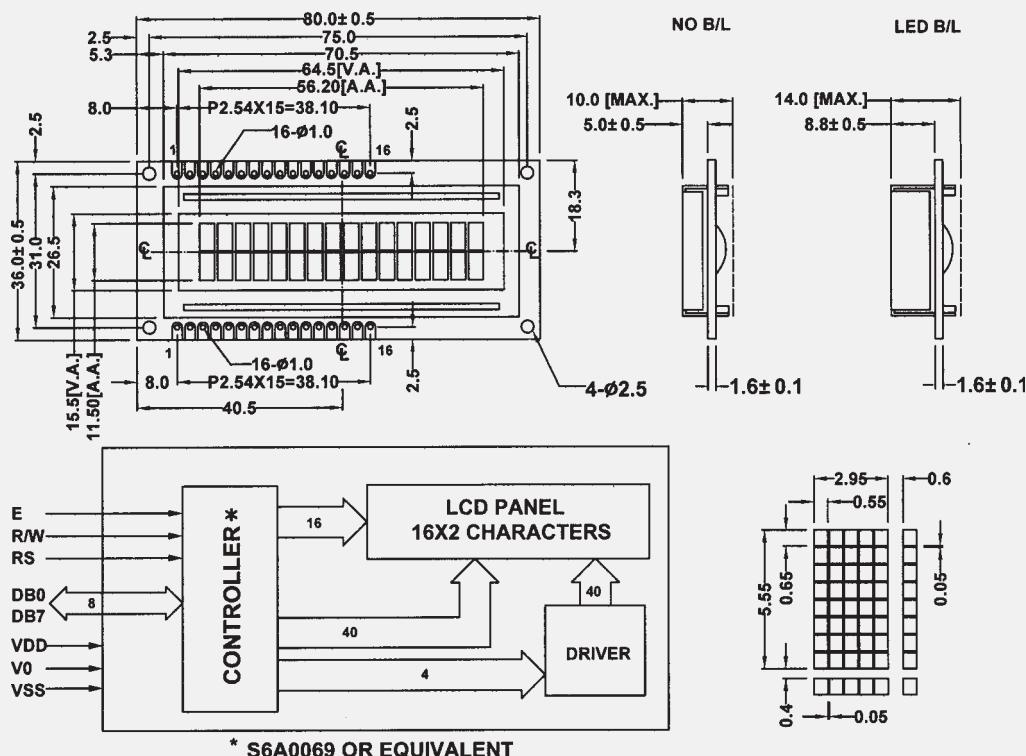
Input terminal		
Pin	Name	Description
1	VBAT	LED Driver Input 1.8~6V
2	BL-EN	BACKLIGHT ENABLE
3	NC	No Connection
4	VCC	I/O power supply for the system interface (System I/F)
5	VSS	Ground pins
6	ADJ	A pin for external variable resistor to adjust VCOM1 center voltage
7	Dotclk	Dot clock for the RGB interface circuit Connect to VCC1A for VSS when not in use
8	Hsync	Horizontal synchronization signal Connect to VCC1A or VSS when not in use
9	Vsync	Vertical synchronization signal Connect to VCC1A or VSS when not in use
10	RGB/CPU	When IF_SHARE is "H", data pins (D17-D0) "L": Used for the System interface circuit "H": Used for the RGB interface circuit
11	/RD(E)	i80 series: Read enable signal M68 series: "L" Read/Write disable "H" Read/Write enable
12	/WR(R/W)	i80 MPU series: Write enable signal M68 series "L" Write (same for parallel "H" Read and serial interfaces)
13	RS	Selects data or command when transferring parallel/serial data. "L": Command, "H": Display data
14	/RESET	Switching to "L" initializes internally. Must be reset after the power is supplied.
15	/CS	Chip selection pin. The "L" level enables inputting commands and reading/writing data.
16-33	D0-D17	18-bit bidirectional bus Connect to VSS when the serial interface is selected.
34	IF_SHARE	"L": Uses data pins(D17-0) only for the system interface circuit. "H": Uses data pins(D17-0) both for the system interface circuit and For RGB interface circuit.
35	BWS2	"L": 18 bits, "H": 16 bits
36-37	BWS1/BWS0	System interface selection
38	DTX2	System interface selection
39	DTX1	System interface selection
40	C86	"L": i80 series MPU "H": M68 series MPU



TFT LCD Graphic Modules

AM-640480ETMCW-00H * 640 x 480 dots color TFT				
FEATURE:	BLOCK DIAGRAM			
1. 10.4" active TFT matrix; 2. Resolution 640x480 RGB; 3. Capable to visualize up to 262K colors; 4. 4:3 diagonal configuration, 5. Brightness 380cd/m ² , contrast 750:1; 6. Dimensions—225.5x176.3x9.5mm (W)x(H)x(D).				
ELECTRICAL CHARACTERISTICS:				
Power supply voltage: 3.0 ± 3.6 V Power consumption: 563 mA				
Input terminal				
Pin No	Name	Description		
1	GND	Ground		
2	DCLK	Dot clock		
3	HS	Horizontal synchronous		
4	VS	Vertical synchronous		
5	GND	Ground		
6	R0	Red data (LSB)		
7	R1	Red data		
8	R2	Red data		
9	R3	Red data		
10	R4	Red data		
11	R5	Red data (MSB)		
12	GND	Ground		
13	G0	Green data (LSB)		
14	G1	Green data		
15	G2	Green data		
16	G3	Green data		
17	G4	Green data		
18	G5	Green data (MSB)		
19	GND	Ground		
20	B0	Blue data (LSB)		
21	B1	Blue data		
22	B2	Blue data		
23	B3	Blue data		
24	B4	Blue data		
25	B5	Blue data (MSB)		
26	GND	Ground		
27	DE	Data enable signal		
28	Vcc	Power supply		
29	Vcc	Power supply		
30	N.C.	Reserved , please keep it floating		
31	DPSR	Selection of scan direction		
LCD backlight unit				
1	GND	Ground, White		
2	HV1	High voltage, Pink		
3	HV2	High voltage, Pink		

LCD Matrix Modules

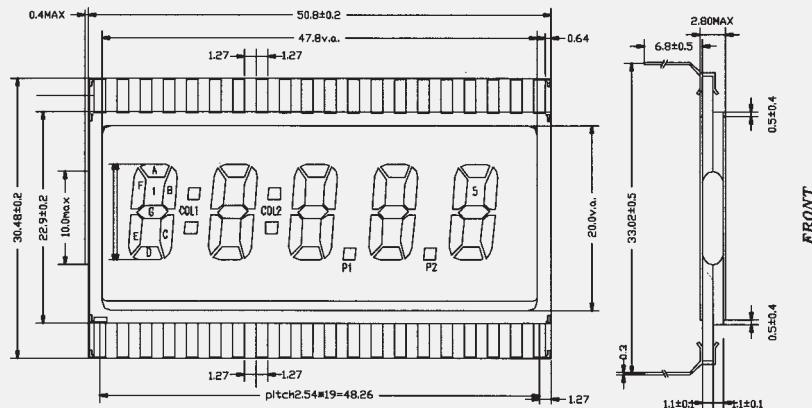
AMC1602A**PIN CONNECTIONS**

Pin 1 – VSS, Power Supply: 0V;
 Pin 2 – VDD, Power Supply: +5V;
 Pin 3 – V0, Power Supply for LCD;
 Pin 4 – RS, Register Select;

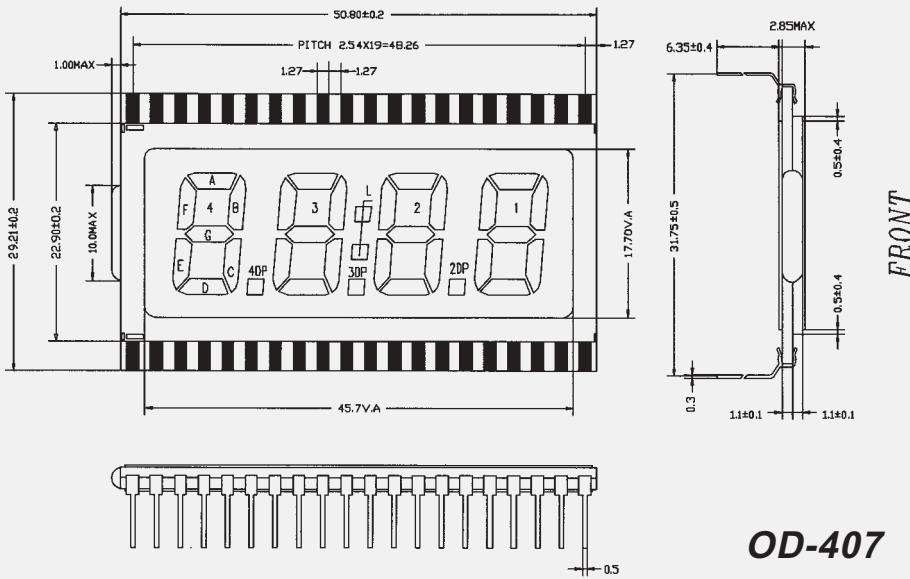
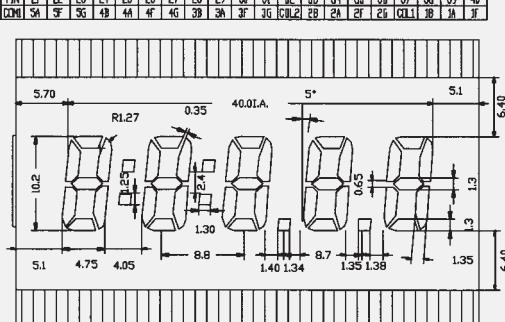
Pin 5 – R/W, Read/Write;

Pin 6 – E, Enable;
 Pin 7 to 14, DB0-DB7 – Data Bus;
 Pin 15 – A, Anode for backlight;
 Pin 16 – K, Cathode for backlight.

LCD Segment Panels



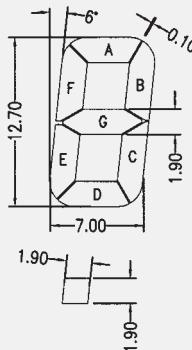
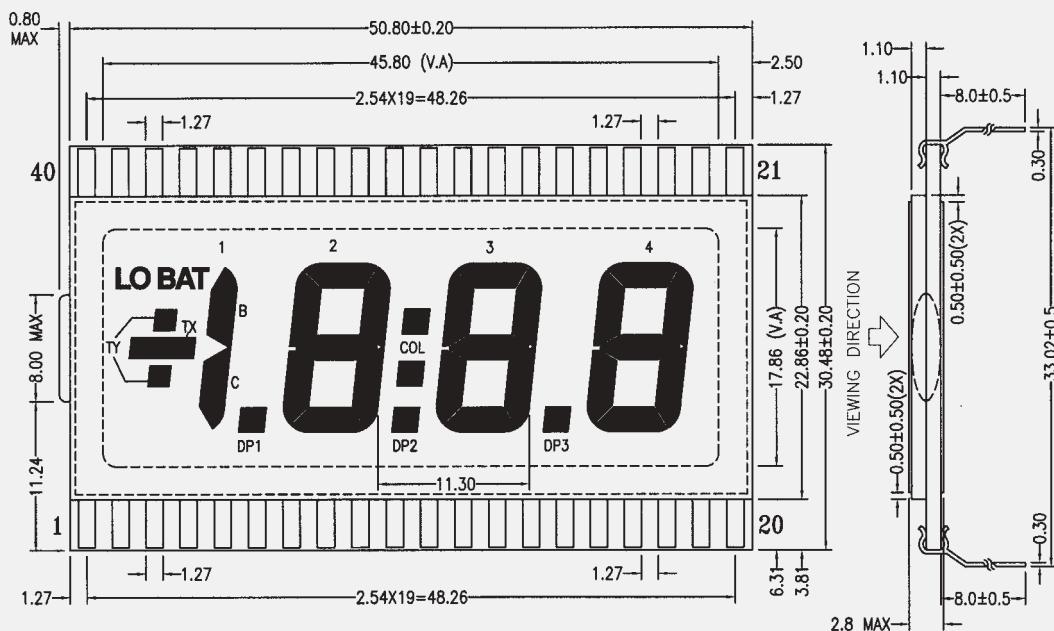
OD-502



OD-407

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CONN																				
CONN																				
PIN	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CONN	1A	1F	1G	2A	2B	2C	2D	2E	2F	2G	2H	2I	2J	2K	2L	2M	2N	2O	2P	2Q

LCD Segment Panels

OD-358

NOTES:

1. DISPLAY TYPE: TN
2. VIEWING DIRECTION: 6:00
3. POLARIZER MODE: POSITIVE/REFLECTIVE
4. DRIVER METHOD: STATIC
5. OPERATING VOLTAGE: 5.0 V
6. OPERATING TEMP: 0°C~50°C
7. STORAGE TEMP: -20°C~70°C
8. CONNECTOR: PIN

LCD Segment Panels

		1-4	5-24	25-99	100+
OD-358	3 1/2 digit 12.70mm height LCD 45.8x17.86mm view area	2.001	1.837	1.738	1.640
OD-407	4 digit 12.70mm height LCD 45.7x17.7mm view area	1.966	1.805	1.709	1.612
OD-502	5 digit 10.70mm height LCD 45.8x20.0mm view area	2.001	1.837	1.738	1.640

LCD Graphic Modules

		1-4	5-24	25-99	100+
AG-12232 AYILY-71 ^{NEW}	122x32 pix, 84x44x15.5mm STN 5V B/L GRAPH	13.523	12.415	11.750	11.085
AG-12864 AYILY-60 ^{EW}	128x64 pix, 93x70x9.5mm STN 5V B/L GRAPH	21.705	19.926	18.858	17.791
AG-16080 BYILY-30 ^{NEW}	160x80 pix, 100x54x15.3mm STN 5V B/L GRAPH	27.624	25.360	24.001	22.643
AF-11264 CFI-30H ^{EW}	Dot matrix 112x64 pix, 33.6x22.3 mm viewing area	11.950	10.970	10.382	9.795

		1-4	5-24	25+
AG-240128 BFICW30	240x128 pix, 170x103x14mm FSTN CCFL B/L GRAPH	60.629	56.906	53.183
AG-240128 GFICW30	240x128 pix, 144x104x15mm FSTN CCFL B/L GRAPH	62.983	59.116	55.249
AG-320240 A1FICW54	320x240 pix, 167x109x11mm FSTN CCFL B/L GRAPH	66.376	62.300	58.224
AG-320240 A1FICW-T54	320x240 pix, 167x109x12.5mm FSTN CCFL B/L TSSCR	84.076	78.914	73.751
AM-240320DTMQW-01H ^{NEW}	Dig.3.2" LCM color TFT, 52.74x74.40x4.5 TFT, LCD ctrl, white B/L	72.276	67.838	63.400
AM-480272ATMQW-00H ^{NEW}	Dig.4.0" LCM color TFT- 87x50 mm, LED B/L	86.847	81.514	76.182
AM-640480ETMCW-00H ^{NEW}	Dig.10.4" LCM color TFT 211.2x158.4 mm, 2CCFL B/L	263.556	247.373	231.190
AMG-12864FRB-B6WT ^{EW}	128x64 pix, 75x53x8, STN NEGATIVE, BLUE, B/L GRAPH	30.328		

		1-4	5-24	25-99	100+
TA07-11YW	0.7"/18mm 5x7 Ø 2 yellow CA	1.885	1.710	1.454	1.346
TC12-11GWA	1.2"/30mm 5x7 Ø 3 green CC	2.042	1.852	1.575	1.458
TC12-11EWA	1.2"/30mm 5x7 Ø 3 red CC	2.199	1.995	1.696	1.571
TA15-11SRWA	1.5"/38mm 8x8 Ø 2 red CA	4.482	4.066	3.458	3.202
TA15-11GWA	1.5"/38mm 8x8 Ø 2 green CA	3.864	3.505	2.981	2.760
TA20-11SRWA	2.0"/50mm 5x7 Ø 5 red CA	2.998	2.720	2.313	2.142
TC20-11SRWA	2.0"/50mm 5x7 Ø 5 red CC	2.998	2.720	2.313	2.142
TA20-11EWA	2.0"/50mm 5x7 Ø 5 hi.eff. red CA	2.782	2.524	2.146	1.987
TC20-11EWA	2.0"/50mm 5x7 Ø 5 hi.eff. red CC	2.782	2.524	2.146	1.987
TA40-11SRWA	4.0"/100mm 5x7 Ø 5 red CA	9.583	8.693	7.392	6.845
TA24-11GWA	2.4"/60mm 5x8 Ø 5 green CA	3.029	2.748	2.337	2.164
TC24-11EWA	2.4"/60mm 5x8 Ø 5 hi.eff. red CA	3.246	2.944	2.504	2.318
TC24-11SRWA	2.4"/60mm 5x8 Ø 5 red CC	3.400	3.085	2.623	2.429
TBA12-22EGWA	1.2"/30mm 5x7 Ø 3 red/green CA	3.709	3.365	2.862	2.650
TBA15-11EGWA	1.5"/38mm 8x8 Ø 3.7 red/green CA	7.110	6.450	5.485	5.078
TBA20-11EGWA	2.0"/50mm 5x7 Ø 5 red/green CA	4.482	4.066	3.458	3.202
TBA23-11EGWA	2.3"/58mm 8x8 Ø 5 red/green CA	8.037	7.291	6.200	5.741
TBA23-12EGWA	2.3"/58mm 8x8 Ø 5 red/green CA	8.037	7.291	6.200	5.741
TBC23-12EGWA	2.3"/58mm 8x8 Ø 5 red/green CC	8.037	7.291	6.200	5.741
TBA40-11EGWA	4.0"/100mm 5x7 Ø 5 red/green CA	12.365	11.217	9.539	8.832

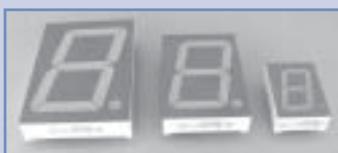
LED Dot Matrix Displays

		1-4	5-24	25-99	100+
KB-A100SRW	8.89 x 3.81 mm light bar, white diffused, RED	0.415	0.376	0.320	0.296
KB-B100SRW	19.05 x 3.81 mm light bar, white diffused, RED	0.540	0.490	0.416	0.385
KB-2500SGD	3.81 x 19.05 mm light bar, green diffused, GREEN	0.365	0.331	0.282	0.261
KB-2885SGD	8.89 x 19.05 mm light bar, green diffused, GREEN	0.976	0.885	0.753	0.697

		1-4	5-24	25-99	100+
SA36-11GWA	0.36"/9.1mm green CA	0.514	0.466	0.397	0.367
SC36-11GWA	0.36"/9.1mm green CC	0.514	0.466	0.397	0.367
SA36-11EWA	0.36"/9.1mm red CA	0.561	0.509	0.433	0.401
SA36-11HWA	0.36"/9.1mm red CA	0.514	0.466	0.397	0.367
SC36-11EWA	0.36"/9.1mm red CC	0.561	0.509	0.433	0.401
SC36-11HWA	0.36"/9.1mm red CC	0.514	0.466	0.397	0.367
SC36-11SRWA	0.36"/9.1mm red CC	0.608	0.551	0.469	0.434
SA36-11SRWA	0.36"/9.1mm red CA	0.608	0.551	0.469	0.434
SA39-11GWA	0.39"/9.9mm green CA	0.514	0.466	0.397	0.367
SA39-11SRWA	0.39"/9.9mm red CA	0.608	0.551	0.469	0.434
SC39-11GWA	0.39"/9.9mm green CC	0.514	0.466	0.397	0.367
SC39-11SRWA	0.39"/9.9mm red CC	0.608	0.551	0.469	0.434
DA04-11GWA	0.4"/10.2mm dual digit green CA	0.810	0.735	0.625	0.579
DA04-11HWA	0.4"/10.2mm dual digit red CA	1.005	0.912	0.775	0.718
DA04-11SRWA	0.4"/10.2mm dual digit red CA	0.935	0.848	0.721	0.668
SC04-11EWA	0.4"/10.2mm red CC	0.576	0.523	0.445	0.412
SC04-11GWA	0.4"/10.2mm green CC	0.530	0.481	0.409	0.378
SC04-11SRWA	0.4"/10.2mm red CC	0.623	0.565	0.481	0.445
SA05-11SRWA	0.5"/12.7mm red CA	0.638	0.579	0.492	0.456
SC05-11SRWA	0.5"/12.7mm red CC	0.638	0.579	0.492	0.456
SA52-11EWA	0.52"/13.2mm red CA	0.608	0.551	0.469	0.434
SA52-11HWA	0.52"/13.2mm red CA	0.576	0.523	0.445	0.412
SA52-11SRWA	0.52"/13.2mm red CA	0.654	0.594	0.505	0.467
SC52-11GWA	0.52"/13.2mm green CC	0.576	0.523	0.445	0.412
SC52-11EWA	0.52"/13.2mm red CC	0.608	0.551	0.469	0.434
SC52-11HWA	0.52"/13.2mm red CC	0.576	0.523	0.445	0.412
SC52-11SRWA	0.52"/13.2mm red CC	0.654	0.594	0.505	0.467
CA56-11EWA	0.56"/13.2mm four digit red CA	1.963	1.781	1.514	1.402

LED Displays

			1-4	5-24	25-99	100+
CA56-12EWA	0.56"/13.2mm four digit red CA		1.963	1.781	1.514	1.402
CA56-12GWA	0.56"/13.2mm four digit green CA		1.932	1.753	1.490	1.380
CA56-12SRWA	0.56"/13.2mm four digit red CA		1.963	1.781	1.514	1.402
CC56-12SRWA	0.56"/13.2mm four digit red CC		1.963	1.781	1.514	1.402
CA56-21SRWA	0.56"/13.2mm four digit red CA		1.963	1.781	1.514	1.402
SA56-11GWA	0.56"/13.2mm green CA		0.503	0.456	0.388	0.359
SC56-11GWA	0.56"/13.2mm green CC		0.503	0.456	0.388	0.359
SC56-11EWA	0.56"/13.2mm red CC		0.534	0.484	0.412	0.381
SC56-11SRWA	0.56"/13.2mm red CC		0.597	0.541	0.460	0.426
SA56-11EWA	0.56"/13.2mm red CA		0.534	0.484	0.412	0.381
SA56-11SRWA	0.56"/13.2mm red CA		0.597	0.541	0.460	0.426
DC56-11GWA	0.56"/14.2mm dual digit green CC		0.974	0.883	0.751	0.696
DC56-11HWA	0.56"/14.2mm dual digit red CC		1.142	1.036	0.881	0.816
DA56-11GWA	0.56"/14.2mm dual digit green CA		0.974	0.883	0.751	0.696
DC56-11SRWA	0.56"/14.2mm dual digit red CC		1.122	1.018	0.865	0.801
DA56-11SRWA	0.56"/14.2mm dual digit red CA		1.122	1.018	0.865	0.801
DA56-11EWA	0.56"/14.2mm dual digit red CA		1.028	0.933	0.793	0.735
DA56-11HWA	0.56"/14.2mm dual digit red CA		0.966	0.876	0.745	0.690
DC56-11YWA	0.56"/14.2mm dual digit yellow CC		1.028	0.933	0.793	0.735
BA56-11EWA	0.56"/14.2mm three-digit red CA		1.371	1.244	1.058	0.979
BA56-12SRWA	0.56"/14.2mm three-digit red CA		1.527	1.385	1.178	1.091
BC56-11SRWA	0.56"/14.2mm three-digit red CC		1.527	1.385	1.178	1.091
BC56-12SRWA	0.56"/14.2mm three-digit red CC		1.527	1.385	1.178	1.091
BC56-12GWA	0.56"/14.2mm three-digit green CC		1.340	1.216	1.034	0.957
SA08-11EWA	0.8"/20.32mm red CA		0.733	0.665	0.566	0.524
SA08-11HWA	0.8"/20.32mm red CA		0.702	0.636	0.541	0.501
SA08-11GWA	0.8"/20.32mm green CA		0.702	0.636	0.541	0.501
SC08-11EWA	0.8"/20.32mm red CC		0.733	0.665	0.566	0.524
SC08-11HWA	0.8"/20.32mm red CC		0.702	0.636	0.541	0.501
SC08-11SRWA	0.8"/20.32mm red CC		0.797	0.723	0.615	0.569
DA08-11EWA	0.8"/20.3mm dual digit red CA		1.620	1.470	1.250	1.157
DA08-11GWA	0.8"/20.3mm dual digit green CA		1.558	1.413	1.202	1.113
DA08-11YWA	0.8"/20.3mm dual digit yellow CA		1.620	1.470	1.250	1.157
DC08-11EWA	0.8"/20.3mm dual digit red CC		1.620	1.470	1.250	1.157
DC08-11GWA	0.8"/20.3mm dual digit green CC		1.558	1.413	1.202	1.113
DC08-11YWA	0.8"/20.3mm dual digit yellow CC		1.620	1.470	1.250	1.157
PSA08-11EWA	0.8"/20mm alphanumeric, red CA		1.188	1.078	0.917	0.849
PSA08-11GWA	0.8"/20mm alphanumeric, green CA		1.126	1.021	0.869	0.804
SA10-11SRWA	1.0"/25.4mm red CA		1.309	1.187	1.010	0.935
SA10-21SRWA	1.0"/25.4mm red CA		1.309	1.187	1.010	0.935
SA10-21EWA	1.0"/25.4mm red CA		1.215	1.102	0.938	0.868
SC10-11EWA	1.0"/25.4mm red CC		1.215	1.102	0.938	0.868
SC10-21EWA	1.0"/25.4mm red CC		1.215	1.102	0.938	0.868
SC10-21SRWA	1.0"/25.4mm red CC		1.309	1.187	1.010	0.935
PSA12-11EWA	1.2"/30mm alphanumeric, red CA		2.026	1.837	1.563	1.447
SBA15-11EGWA	1.5"/38mm red/green CA		2.533	2.298	1.954	1.809
SA15-11GWA	1.5"/38mm green CA		1.805	1.637	1.392	1.289
SC15-11GWA	1.5"/38mm green CA		1.805	1.637	1.392	1.289
SC15-11SRWA	1.5"/38mm red CA		1.931	1.752	1.490	1.379
SA15-11EWA	1.5"/38mm red CA		1.836	1.666	1.417	1.312
SA15-11SRWA	1.5"/38mm red CA		1.931	1.752	1.490	1.379
SA18-11GWA	1.8"/45mm green CA		2.375	2.154	1.832	1.696
SC18-11GWA	1.8"/45mm green CC		2.375	2.154	1.832	1.696
SA18-11EWA	1.8"/45mm red CA		2.501	2.269	1.929	1.787
SA18-11SRWA	1.8"/45mm red CA		2.628	2.384	2.027	1.877
SA23-12GWA	2.3"/56.9mm green CA		3.483	3.159	2.687	2.488
SA23-12EWA	2.3"/56.9mm red CA		3.641	3.303	2.809	2.601



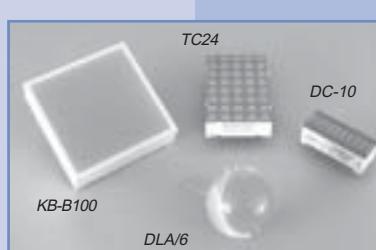
Sx23 Sx18 Sx15



Sx10 Sx08 Sx52 Sx36



Dx08-11 Dx56-11 Dx04-11



LED Displays

		1-4	5-24	25-99	100+
SA23-11SRWA	2.3"/56.9mm red CA	3.958	3.590	3.053	2.827
SC23-11SRWA	2.3"/56.9mm red CC	3.958	3.590	3.053	2.827
SA23-11GWA	2.3"/56.9mm green CA	3.483	3.159	2.687	2.488
SA23-11EWA	2.3"/56.9mm red CA	3.641	3.303	2.809	2.601
SA23-12SRWA	2.3"/56.9mm red CA	3.958	3.590	3.053	2.827
SA40-18SRWA	4"/100mm red CA	10.907	9.894	8.414	7.790
SA40-19SRWA	4"/100mm red CA	10.907	9.894	8.414	7.790
DC-10YWA	1.0"/25.4mm bargraph yellow	0.669	0.607	0.516	0.478
DC-10GWA	1.0"/25.4mm bargraph green	0.669	0.607	0.516	0.478
DC-7G3EWA	1.0"/25.4mm bargraph green/red	0.730	0.662	0.563	0.521
DC-7G3HWA	1.0"/25.4mm bargraph green/red	0.730	0.662	0.563	0.521
DC-10EWA	1.0"/25.4mm bargraph red	0.669	0.607	0.516	0.478
DC-10SRWA	1.0"/25.4mm bargraph red	0.730	0.662	0.563	0.521
HDA-3616DR	0.36"/9.1mm red CA	0.388	0.352	0.299	0.277
HDA-3613	0.36"/9.1mm green CA	0.377	0.342	0.291	0.269
HDA-5616CR	0.56"/13.2mm red CA	0.535	0.485	0.413	0.382
HDA-5626CR	0.56"/14.2mm dual digit red CA	0.844	0.765	0.651	0.603

LED Lamps

		1-9	10-99	100-499	500+	2000+
L-1384AL/1GD	3mm Housing LED 8-15mcd 568nm GREEN DIFF.	0.104	0.093	0.086	0.078	0.075
L-1384AL/1ID	3mm Housing LED 12-20mcd 625nm RED DIFF.	0.104	0.093	0.086	0.078	0.075
L-1384AL/1YD	3mm Housing LED 8-15mcd 588nm YELLOW DIFF.	0.104	0.093	0.086	0.078	0.075
L-934EC	3mm 20-80mcd/20mA 625nm RED W.CLEAR	0.048	0.043	0.039	0.036	0.034
L-934GD	3mm 8-32mcd/20mA 568nm GREEN DIFF.	0.051	0.045	0.042	0.038	0.036
L-934HD	3mm 1.3-3mcd/20mA 660nm RED DIFFUSED	0.051	0.045	0.042	0.038	0.036
L-934ID	3mm 8-50mcd/20mA 625nm RED DIFFUSED	0.051	0.045	0.042	0.038	0.036
L-934LGD	3mm 8-15mcd/2mA 568nm GREEN DIFFUSED	0.054	0.048	0.044	0.040	0.038
L-934LSRD	3mm 8-20mcd/2mA 640nm RED DIFFUSED	0.066	0.059	0.054	0.049	0.047
L-934MBC	3mm 12.5-40mcd/20mA 455nm BLUE W.CLEAR	0.537	0.479	0.441	0.402	0.383
L-934MBDL	3mm 12.5-40mcd/20mA 455nm BLUE DIFFUSED	0.537	0.479	0.441	0.402	0.383
L-934SGC	3mm 100-300mcd/20mA 568nm GREEN CLEAR	0.046	0.041	0.038	0.035	0.033
L-934SGD	3mm 40-60mcd/20mA 568nm GREEN DIFFUSED	0.051	0.045	0.042	0.038	0.036
L-934SRC-D	3mm 500-600mcd/20mA 640nm RED W.CLEAR	0.066	0.059	0.054	0.049	0.047
L-934SRC-E	3mm 700-900mcd/20mA 640nm RED W.CLEAR	0.080	0.072	0.066	0.060	0.057
L-934SRD-D	3mm 100-200mcd/20mA 640nm RED DIFFUSED	0.066	0.059	0.054	0.049	0.047
L-934SRD-E	3mm 200-250mcd/20mA 640nm RED DIFFUSED	0.066	0.059	0.054	0.049	0.047
L-934SRD-H	3mm 650-800mcd/20mA 640nm RED DIFFUSED	0.179	0.160	0.147	0.134	0.128
L-934SRD-J	3mm 900-1200mcd/20mA 640nm RED DIFFUSED	0.179	0.160	0.147	0.134	0.128
L-934YC	3mm 10-50mcd/20mA 588nm YELLOW W.CLEAR	0.048	0.043	0.039	0.036	0.034
L-934YD	3mm 8-32mcd/20mA 588nm YELLOW DIFFUSED	0.051	0.045	0.042	0.038	0.036
L-115WGYW	3mm 12-50mcd/20mA GREEN/YELLOW 3-pin	0.134	0.120	0.110	0.101	0.096
L-115WEYW	3mm 12-50mcd/20mA RED/YELLOW 3-pin	0.134	0.120	0.110	0.101	0.096
L-115WEGW	3mm 12-50mcd/20mA RED/GREEN 3-pin	0.134	0.120	0.110	0.101	0.096
L-937EGW	3mm 20-40mcd/20mA RED/GREEN 2-pin	0.122	0.109	0.100	0.092	0.087
L-1503CB/1GD	5 mm housing LED 30mcd/20mA 568nm GR. right angle	0.105	0.094	0.086	0.079	0.075
L-1503CB/1ID	5 mm housing LED 30mcd/20mA 625nm RED right angle	0.105	0.094	0.086	0.079	0.075
L-1503CB/1YD	5 mm housing LED 30mcd/20mA 588nm YELL. right angle	0.105	0.094	0.086	0.079	0.075
L-1513SGC	5mm 100-300mcd/20mA 568nm GREEN CLEAR	0.059	0.053	0.048	0.044	0.042
L-1513SRC-D	5mm 1000-2000mcd/20mA 640nm RED CLEAR	0.066	0.059	0.054	0.050	0.047
L-53ED	5mm 12-80mcd/20mA 625nm ORANGE DIFF.	0.051	0.046	0.042	0.038	0.036
L-53GD	5mm 5-32 mcd/20mA 568nm GREEN DIFF.	0.051	0.046	0.042	0.038	0.036
L-53ID	5mm 12-80mcd/20mA 625nm RED DIFF.	0.051	0.046	0.042	0.038	0.036
L-53LGD	5mm 0.8-3.2 mcd/2mA 568nm GREEN DIFF.	0.054	0.048	0.044	0.041	0.039
L-53LSRD	5mm 8-20mcd/2mA 640nm RED DIFF.	0.066	0.059	0.054	0.050	0.047
L-53LYD	5mm 0.8-3.2 mcd/2mA 588nm YELLOW DIFF.	0.054	0.048	0.044	0.041	0.039
L-53MBC	5mm 40-150mcd/20mA 455nm BLUE CLEAR	0.541	0.483	0.444	0.406	0.386
L-53MBDL	5mm 20-60mcd/20mA 455nm BLUE DIFFUSED	0.541	0.483	0.444	0.406	0.386
L-53MWC	5mm 80-200mcd/20mA WHITE CLEAR	0.661	0.590	0.543	0.496	0.472
L-53SEC-H	5mm 7000-10000mcd/20mA 630nm H. ORANGE CLEAR	0.361	0.322	0.296	0.270	0.258
L-53SGC	5mm 100-300 mcd/20mA 568nm GREEN CLEAR	0.047	0.042	0.038	0.035	0.033
L-53SGD	5mm 20-60 mcd/20mA 568nm GREEN DIFF.	0.051	0.046	0.042	0.038	0.036
L-53SRC-C	5mm 500-1000mcd/20mA 640nm RED W.CLEAR	0.066	0.059	0.054	0.050	0.047
L-53SRC-DU	5mm 900-1100mcd/20mA 640nm RED W.CLEAR	0.066	0.059	0.054	0.050	0.047
L-53SRC-F	5mm 3500-4500mcd/20mA 640nm RED W.CLEAR	0.180	0.161	0.148	0.135	0.129
L-53SRD-C	5mm 110-200mcd/20mA 640nm RED DIFFUSED	0.066	0.059	0.054	0.050	0.047
L-53SRD-E	5mm 300-500mcd/20mA 640nm RED DIFFUSED	0.066	0.059	0.054	0.050	0.047
L-53SRD-H	5mm 1000-1500mcd/20mA 640nm RED DIFFUSED	0.180	0.161	0.148	0.135	0.129
L-53SURC-E	5mm 2000 mcd/20mA 630nm RED W.CLEAR	0.180	0.161	0.148	0.135	0.129
L-53SYC	5mm 400-1000mcd/20mA 588nm YELLOW W.CLEAR	0.120	0.107	0.099	0.090	0.086
L-53SYD	5mm 100-500 mcd/20mA 588nm YELLOW DIFF.	0.120	0.107	0.099	0.090	0.086
L-53SYT	5mm 400-1000mcd/20mA 588nm YELLOW TRANSP.	0.120	0.107	0.099	0.090	0.086
L-53VGC-E	5mm 2800-4500mcd/20mA 525nm GREEN W.CLEAR	0.781	0.698	0.642	0.586	0.558
L-53YD	5mm 0.8-3.2 mcd/20mA 588nm YELLOW DIFF.	0.051	0.046	0.042	0.038	0.036
L-54PWC	5mm 500-1000mcd/20mA WHITE CLEAR	0.526	0.469	0.432	0.394	0.376
L-56BHD	5mm 2-8mcd/ 9V RED DIFF. BLINKING	0.300	0.268	0.247	0.225	0.215
L-56BID	5mm 20-80 mcd/9V RED DIFF. BLINKING	0.300	0.268	0.247	0.225	0.215
L-57EGW	5mm 12-40mcd/20mA bi-color 2-pin	0.123	0.110	0.101	0.092	0.088
L-59EGW	5mm 20-70mcd/20mA bi-color 3-pin	0.123	0.110	0.101	0.092	0.088

LED Lamps			1-9	10-99	100-499	500+	2000+
L-59SRSGW-CC	5mm 40-80mcd/20mA bi-color 3-pin		0.135	0.121	0.111	0.101	0.097
L-7113PBC	5mm 300-1000mcd/20mA BLUE CLEAR		0.406	0.362	0.333	0.304	0.290
L-7113PBC-H	5mm 1500-3200mcd/20mA BLUE CLEAR		1.052	0.939	0.864	0.789	0.751
L-154A4SURKPBVGKW	5mm 160-500mcd/20mA HYPER RED/BLUE/GREEN		1.803	1.558	1.455	1.288	
L-799EGW	8mm 30/80 mcd bi-color WHITE DIFFUSED		0.195	0.169	0.158	0.139	
L-813ED	10mm 40-150mcd/20mA 625nm ORANGE DIFFUSED		0.092	0.080	0.074	0.066	
L-813GD	10mm 20-70mcd/20mA 568nm GREEN DIFFUSED		0.092	0.080	0.074	0.066	
L-813ID	10mm 40-150mcd/20mA 625nm RED DIFFUSED		0.092	0.080	0.074	0.066	
L-813SGC	10mm 200-350mcd/20mA 628nm GREEN W.CLEAR		0.092	0.080	0.075	0.066	
L-813SRC-C	10mm 1000-1500mcd/20mA 640nm RED W.CLEAR		0.092	0.080	0.074	0.066	
L-813SRC-D	10mm 1600-1800mcd/20mA 640nm RED W.CLEAR		0.240	0.208	0.194	0.172	
L-813SRC-E	10mm 2000-3000mcd/20mA 640nm RED W.CLEAR		0.240	0.208	0.194	0.172	
L-813SRC-F	10mm 3000-3800mcd/20mA 640nm RED W.CLEAR		0.240	0.208	0.194	0.172	
L-813SRD-C	10mm 200-350mcd/20mA 640nm RED DIFFUSED		0.101	0.087	0.081	0.072	
L-813SRD-E	10mm 450-550mcd/20mA 640nm RED DIFFUSED		0.101	0.087	0.081	0.072	
L-813SRD-F	10mm 550-650mcd/20mA 640nm RED DIFFUSED		0.240	0.208	0.194	0.172	
L-813SRD-H	10mm 800-1200mcd/20mA 640nm RED DIFFUSED		0.240	0.208	0.194	0.172	
L-813SYC-H	10mm 760-2700mcd/20mA 588nm YELLOW W.CLEAR		0.580	0.501	0.468	0.414	
L-813YD	10mm 20-70mcd/20mA 588nm YELLOW DIFFUSED		0.092	0.079	0.074	0.065	
DLA/6SGD	20mm 200mcd/20mA S-GREEN		0.715	0.618	0.577	0.511	
DLA/6SRD	20mm 400mcd/20mA H-RED		0.835	0.721	0.674	0.596	
DLA/6YD	20mm 50mcd/20mA YELLOW		0.715	0.618	0.577	0.511	
DLC2/6ID	20mm 80mcd/20mA RED		0.715	0.618	0.577	0.511	
DLC2/6GD	20mm 50mcd/20mA GREEN		0.715	0.618	0.577	0.511	
L-144GDT	1.9x3.9mm 2-8mcd/20mA 568nm GREEN DIFF.		0.063	0.056	0.051	0.047	0.045
L-144EDT	1.9x3.9mm 20mcd/20mA 625nm ORANGE DIF.		0.063	0.056	0.051	0.047	0.045
L-103GD	2.0x5mm 2-8mcd/20mA 568nm GREEN DIFF.		0.055	0.050	0.046	0.042	0.040
L-103ID	2.0x5mm 3-12mcd/20mA 625nm RED DIFF.		0.063	0.056	0.052	0.047	0.045
L-113GDT	2.0x5mm 2-8mcd/20mA 568nm GREEN DIFF.		0.051	0.045	0.042	0.038	0.036
L-113IDT	2.0x5mm 3-12mcd/20mA 625nm RED DIFF.		0.051	0.045	0.042	0.038	0.036
L-153IDT	2.3x7mm 3.2-12.5mcd/20mA 625nm RED DIFF.		0.062	0.055	0.051	0.046	0.044
L-383IDT	2.5x 5mm 3-5mcd/20mA 625nm RED DIFF.		0.065	0.058	0.053	0.049	0.046
L-323HD	3 x 4.5mm 1mcd/10mA 660nm RED DIFF.		0.074	0.066	0.061	0.056	0.053
L-503GDT	5x5mm 3mcd/20mA 568nm GREEN DIFF.		0.063	0.056	0.051	0.047	0.045
			1-9	10-99	100-499	500-1999	2000+
CLL-30221	P1	3 mm Bright Red Diffused 1.8mcd	0.030	0.020	0.016	0.0142	0.0135
MLL-30231	P2	3 mm Bright Red Diffused 3.2mcd	0.037	0.025	0.021	0.0178	0.0169
CLL-30321	P1	3 mm Hi-Eff Red Diffused 5mcd	0.037	0.025	0.021	0.0178	0.0169
CLL-30331	P2	3mm Hi-Eff Red Diffused 8mcd	0.039	0.027	0.021	0.0186	0.0178
MLL-30331	P2	3 mm Hi-Eff Red Diffused 12mcd	0.040	0.027	0.022	0.0191	0.0182
MUB-30031	P6	3 mm Super Red Diffused 60mcd	0.064	0.044	0.035	0.0305	0.0290
CLL-30322	P1	3 mm Hi-Eff Red Transparent 10mcd	0.037	0.025	0.021	0.0178	0.0170
MLL-30332	P2	3 mm Hi-Eff Red Transparent 30mcd	0.040	0.027	0.022	0.0191	0.0182
CLL-30421	P1	3 mm Orange Diffused 5mcd	0.037	0.025	0.021	0.0178	0.0170
MLL-30431	P2	3 mm Orange Diffused 12mcd	0.040	0.027	0.022	0.0191	0.0182
CLL-30521	P1	3 mm Yellow Diffused 3.5mcd	0.036	0.025	0.020	0.0173	0.0165
MLL-30531	P2	3 mm Yellow Diffused 9mcd	0.045	0.031	0.025	0.0214	0.0203
CLL-30522	P1	3 mm Yellow Transparent 10mcd	0.036	0.025	0.020	0.0173	0.0165
MLL-30532	P2	3 mm Yellow Transparent 30mcd	0.043	0.029	0.024	0.0205	0.0196
CLL-30621	P1	3 mm Green Diffused 3.5mcd	0.032	0.022	0.018	0.0155	0.0147
CLL-30631	P2	3 mm Green Diffused 8mcd	0.035	0.024	0.019	0.0168	0.0160
MLL-30631	P2	3 mm Green Diffused 12mcd	0.039	0.027	0.021	0.0186	0.0177
CLL-30622	P1	3 mm Green Transparent 8mcd	0.032	0.022	0.018	0.0152	0.0145
MLL-30632	P2	3 mm Green Transparent 30mcd	0.039	0.026	0.021	0.0185	0.0176
ML37W13H-BEF		3 mm White Water Clear 3500mcd	0.374	0.334	0.307	0.2802	0.2669
ML37B23H-BED		3mm Blue Water Clear 1200mcd	0.218	0.194	0.179	0.1632	0.1554
CLL-50221	P7	5 mm Bright Red Diffused 2.5mcd	0.032	0.022	0.018	0.0153	0.0146
MLL-50231	P8	5 mm Bright Red Diffused 4mcd	0.041	0.028	0.022	0.0194	0.0185
CLL-50321	P7	5 mm Hi-Eff Red Diffused 5mcd	0.041	0.028	0.023	0.0197	0.0187
MLL-50331	P8	5 mm Hi-Eff Red Diffused 20mcd	0.044	0.030	0.024	0.0210	0.0200
MUB-50031	P8	5 mm Super Red Diffused 50mcd	0.068	0.046	0.037	0.0324	0.0309
CLL-50322	P7	5 mm Hi-Eff Red Transparent 12mcd	0.039	0.027	0.022	0.0188	0.0179
CLL-50332	P8	5 mm Hi-Eff Red Transparent 45mcd	0.042	0.028	0.023	0.0199	0.0190
MLL-50332	P8	5 mm Hi-Eff Red Transparent 55mcd	0.044	0.030	0.024	0.0208	0.0198
CLL-50421	P7	5 mm Orange Diffused 5mcd	0.040	0.027	0.022	0.0191	0.0182
MLL-50431	P8	5 mm Orange Diffused 20mcd	0.040	0.027	0.022	0.0190	0.0181
CLL-50422	P7	5 mm Orange Transparent 12mcd	0.040	0.027	0.022	0.0190	0.0181
MLL-50432	P8	5 mm Orange Transparent 56mcd	0.039	0.027	0.022	0.0187	0.0178
CLL-50521	P7	5 mm Yellow Diffused 4mcd	0.039	0.026	0.021	0.0184	0.0176
MLL-50531	P8	5 mm Yellow Diffused 20mcd	0.049	0.033	0.027	0.0233	0.0222
CLL-50522	P7	5 mm Yellow Transparent 12mcd	0.040	0.027	0.022	0.0191	0.0182
MLL-50532	P8	5 mm Yellow Transparent 56mcd	0.047	0.032	0.026	0.0224	0.0213

LED Lamps

			1-9	10-99	100-499	500-1999	2000+
CLL-50621	P7	5 mm Green Diffused 4mcd	0.036	0.025	0.020	0.0173	0.0165
MLL-50631	P8	5 mm Green Diffused 20mcd	0.044	0.030	0.024	0.0212	0.0202
CLL-50622	P7	5 mm Green Transparent 8mcd	0.032	0.022	0.017	0.0151	0.0144
MLL-50632	P8	5 mm Green Transparent 56mcd	0.041	0.028	0.022	0.0194	0.0184
ML50B13H-BB		5mm Blue Water Clear 1000mcd	0.168	0.150	0.138	0.1262	0.1202
ML50B25H-DED		5mm Blue Diffused 1000mcd	0.225	0.201	0.185	0.1686	0.1606
ML50W13H-BEE		5mm White Water Clear 6000mcd	0.270	0.241	0.222	0.2023	0.1927
MLL-100331	P18	10 mm Hi-Eff Red Diffused 30mcd	0.056	0.050	0.046	0.0418	0.0398
MLL-100531	P18	10 mm Yellow Diffused 30mcd	0.057	0.051	0.047	0.0430	0.0409
MLL-100631	P18	10 mm Green Diffused 30mcd	0.057	0.051	0.047	0.0430	0.0409
SLR-050RGB40 ^{NEW}		5mm 1100/1500/720mcd/20mA RED/BLUE/GREEN	0.862	0.745	0.696	0.616	
SLR-050NW40 ^{NEW}		5 mm White Water Clear 20000mcd 15deg	0.403	0.349	0.326	0.288	
SLR-100NW4A ^{NEW}		10 mm White Water Clear 20000mcd 15deg	0.440	0.380	0.355	0.314	

1-9	10-99	100+	500+
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HB3b-448ABC	3mm Blue 470nm water clear 2300mcd 15deg	0.431	0.372	0.348	0.3079
HB5-436ARA-C	5mm Red 645nm water clear 2800mcd 30deg	0.095	0.082	0.077	0.0679
HB5d-435AOR-D	5mm Fresh Red 626nm water clear 3600mcd 30deg	0.101	0.087	0.081	0.0718
HB5-435FO-C	5mm Orange 615nm water clear 2400mcd 40deg	0.118	0.102	0.095	0.0842
HB5-434AY	5mm Yellow 590nm water clear 3000mcd 12deg	0.078	0.067	0.063	0.0554
HB5-434BY-C	5mm Yellow 590nm water clear 600mcd 40deg	0.063	0.054	0.051	0.0449
HB5-434CY-C	5mm Yellow 590nm water clear 450mcd 40deg	0.063	0.054	0.051	0.0449
HB5-434FY-C	5mm Yellow 590nm water clear 2400mcd 40deg	0.118	0.102	0.095	0.0842
HB5d-434FY-C	5mm Yellow 590nm water clear 3800mcd 24deg	0.101	0.087	0.081	0.0718
HB5d-434FY-D	5mm Yellow 590nm water clear 3200mcd 30deg	0.101	0.087	0.081	0.0718
HB5-433BG-C	5mm Yellow Green 572nm water clear 900mcd 40deg	0.156	0.134	0.126	0.1111
HB5-433CG-C	5mm Yellow Green 567nm water clear 500mcd 30deg	0.075	0.065	0.061	0.0538
HB5b-433AGCA	5mm Pure Green 525nm water clear 11000mcd 10deg	0.608	0.525	0.491	0.4341
HB5d-433AGC-D	5mm Pure Green 525nm water clear 4500mcd 30deg	0.608	0.525	0.491	0.4341
HB5d-433EBA-D	5mm Blush Green 505nm water clear 5400mcd 35deg	0.553	0.478	0.446	0.3948
HB5-439AWD	5mm White water clear 12000mcd 20deg	0.544	0.470	0.439	0.3883
HB5Q-433AG/P	5mm Pure Green 525nm col.clear. lens 3300mcd 45deg	1.254	1.148	1.063	
HB5R-233AG/P	Oval Pure Green 525nm col.clear. lens 3100mcd 70/25deg	1.188	1.088	1.007	
HB5R-238AB/P	Oval Blue 470nm col.clear. lens 690mcd 70/25deg	1.315	1.203	1.114	
HB10b-433BG	10mm Yellow Green 572nm water clear 4000mcd 7deg	0.196	0.170	0.158	0.1402
HB10b-436AR	10mm Red 645nm water clear 6000mcd 7deg	0.169	0.146	0.136	0.1205
HB10b-434AY	10mm Yellow 590nm water clear 7000mcd 7deg	0.169	0.146	0.136	0.1205
LC503PBG1-30Q-A3	5 mm Bluish Green 505nm, 4800mcd, watertransp. 30deg	0.608	0.525	0.491	0.434
LC503AHR2-30Q-A	5 mm High-Eff Red 624nm, 3500mcd, watertransp. 30deg	0.245	0.211	0.197	0.175
LC503THR1-30H-01	5 mm High-Eff Red 628nm, 3000mcd, watertransp. 30deg	0.269	0.232	0.217	0.192
LC503AYL2-30Q-A	5 mm Yellow 591nm, 4500mcd, watertransp. 30deg	0.245	0.211	0.197	0.175
LC503TLY1-30H-01	5 mm Yellow 591nm, 3500mcd, watertransp. 30deg	0.269	0.232	0.217	0.192

SMD LEDs

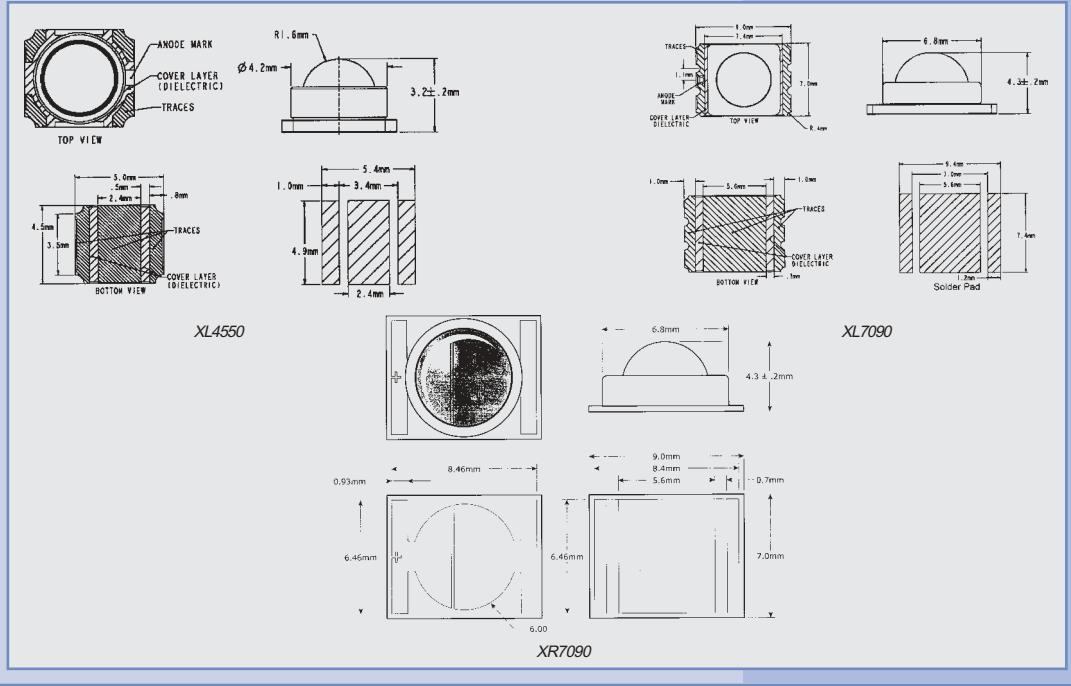
		1-9	10-99	100-499	500-1999	2000+
SML010DT ROHM	3x2mm 3.6-10mcd/20mA ORANGE	0.094	0.084	0.077	0.070	0.067
SML010LT ROHM	3x2mm 5.6-16mcd/20mA RED	0.088	0.079	0.073	0.066	0.063
SML010MT ROHM	3x2mm 5.6-16mcd/20mA GREEN	0.091	0.082	0.075	0.069	0.065
SML010YT ROHM	3x2mm 2.2-6.3mcd/20mA YELLOW	0.091	0.082	0.075	0.069	0.065
SML020MLT ROHM	3x2.5mm 9-16mcd/20mA RED, 9-20mcd/20mA GREEN	0.146	0.130	0.120	0.109	0.104
SML210DT ROHM	2x1.25mm 3.6-10mcd/20mA ORANGE	0.067	0.060	0.055	0.050	0.048
SML210LT ROHM	2x1.25mm 3.6-10mcd/20mA RED	0.074	0.066	0.061	0.056	0.053
SML210MT ROHM	2x1.25mm 3.6-10mcd/20mA GREEN	0.064	0.057	0.053	0.048	0.046
SML210VT ROHM	2x1.25mm 1.4-4 mcd/20mA RED	0.069	0.062	0.057	0.052	0.049
SML210YT ROHM	2x1.25mm 2.2-6.3mcd/20mA YELLOW	0.069	0.062	0.057	0.052	0.049
SML211UT ROHM	2x1.5mm 0.9-2.5mcd/2mA RED	0.107	0.096	0.088	0.081	0.077
SML310VT ROHM	1.6x0.8mm 1.4 - 4mcd/2mA RED	0.055	0.049	0.045	0.041	0.039
KM-27ID-10	2x2mm .30 mcd/20mA, RED	0.102	0.091	0.084	0.077	0.073
KA-3528EC	3.5x2.8mm .30 mcd/20mA, RED	0.108	0.097	0.089	0.081	0.077
KA-3528SGC	3.5x2.8mm .25 mcd/20mA, GREEN	0.108	0.097	0.089	0.081	0.077
KAA-3528EMBSGC	3.5x2.8mm .25 mcd/20mA, RGB	0.901	0.805	0.740	0.676	0.644
KAAF-5060PBESEEVG	5x6 mm SMD CHAMELEON BLUE-ORANGE-GREEN	2.218	1.917	1.790	1.584	
KP-2012EC	2.0x1.2mm (0805), 3.2-12.5 mcd/20mA, RED	0.048	0.043	0.039	0.036	0.034
KP-2012GSC	2.0x1.2mm (0805), 3.2-15 mcd/20mA, GREEN	0.047	0.042	0.038	0.035	0.033
KP-2012YC	2.0x1.2mm (0805), 3.2-8 mcd/20mA, YELLOW	0.048	0.043	0.039	0.036	0.034
KP-3216EC	3.2x1.6mm (1206), 3.2-12.5 mcd/20mA, RED	0.063	0.056	0.052	0.047	0.045
KP-3216SGC	3.2x1.6mm (1206), 3.2-15 mcd/20mA, GREEN	0.060	0.054	0.049	0.045	0.043
KP-3216YC	3.2x1.6mm (1206), 3.2-8 mcd/20mA, YELLOW	0.063	0.056	0.052	0.047	0.045
KP-3216GSC	3.2x1.6mm (1206), 70-200 mcd/20mA, RED	0.132	0.118	0.109	0.099	0.094
KP-3216SEC	3.2x1.6mm (1206), 3.2-15 mcd/20mA, GREEN	0.060	0.054	0.049	0.045	0.043
KP-3216YGC	3.2x1.6mm (1206), 3.2-8 mcd/20mA, YELLOW	0.063	0.056	0.052	0.047	0.045
KP-3216SYC	3.2x1.6mm (1206), 40-60 mcd/20mA, YELLOW	0.132	0.118	0.109	0.099	0.094
KPTD-3216MGC	3.2x1.6mm (1206), 110-350 mcd/20mA, GREEN	0.270	0.241	0.222	0.203	0.193

SMD LEDs

		1-9	10-99	100-499	500-1999	2000+
LM1-TPP1-01	3.2x2.8mm Full Color 280/150/112mcd 120deg	1.629	1.408	1.315	1.163	
LM1-PWH1-01	3.2x2.8mm Daylight 450mcd 120deg	0.859	0.743	0.694	0.614	
LM1-PWH1-03	3.2x2.8mm Daylight 1300mcd 120deg 3-in-1	2.004	1.732	1.617	1.431	
LM1-PBG1-01	3.2x2.8mm Blush Green 630mcd 120deg	0.690	0.597	0.557	0.493	
LM1-PPG1-01	3.2x2.8mm Pure Green 560mcd 120deg	0.766	0.662	0.618	0.547	
LM1-PBL1-01	3.2x2.8mm Blue 160mcd 120deg	0.634	0.548	0.512	0.453	
LM1-AHR1-01	3.2x2.8mm High-Eff Red 500mcd 120deg	0.353	0.305	0.285	0.252	
LM1-TYL1-01	3.2x2.8mm Yellow 300mcd 120deg	0.353	0.305	0.285	0.252	
LS1-THR1-01	4.0x4.0mm High-Eff 400mcd 120deg Side SMD	0.394	0.341	0.318	0.281	
LS1-TYL1-01	4.0x4.0mm Yellow 350mcd 120deg Side SMD	0.394	0.341	0.318	0.281	
LS1-PPG1-01	4.0x4.0mm Pure Green 700mcd 120deg Side SMD	0.788	0.681	0.636	0.563	
LS1-PBL1-01	4.0x4.0mm Blue 200mcd 120deg Side SMD	0.732	0.632	0.591	0.523	
LS1-PWH1-01	4.0x4.0mm Daylight 450mcd 120deg Side SMD	1.054	0.911	0.851	0.753	

Power LEDs CREE NEW

		1-4	5-24	25-99	100+
XL4550BLU-L100-B3-C-0001	0.5W, Blue, L100, 465-470nm, 4.8-6.3lm, 125mA	2.407	2.157	2.080	1.926
XL4550BLU-L100-B4-C-0001	0.5W, Blue, L100, 470-475nm, 4.8-6.3lm, 125mA	2.407	2.157	2.080	1.926
XL4550BLU-L100-B4-D-0001	0.5W, Blue, L100, 470-475nm, 6.3-8.2lm, 125mA	2.485	2.226	2.147	1.988
XL4550GRN-L100-G3-F-0001	0.5W, Green, L100, 525-530nm, 10.7-13.9lm, 125mA	2.635	2.361	2.277	2.108
XL4550GRN-L100-G4-F-0001	0.5W, Green, L100, 530-535nm, 10.7-13.9lm, 125mA	2.635	2.361	2.277	2.108
XL4550GRN-L100-G2-G-0001	0.5W, Green, L100, 520-525nm, 13.9-18.1lm, 125mA	2.805	2.514	2.424	2.244
XL4550GRN-L100-G3-G-0001	0.5W, Green, L100, 525-530nm, 13.9-18.1lm, 125mA	2.805	2.514	2.424	2.244
XL4550GRN-L100-G4-G-0001	0.5W, Green, L100, 530-535nm, 13.9-18.1lm, 125mA	2.805	2.514	2.424	2.244
XL4550GRN-L100-G2-H-0001	0.5W, Green, L100, 520-525nm, 18.1-23.5lm, 125mA	2.890	2.590	2.497	2.312
XL4550GRN-L100-G3-H-0001	0.5W, Green, L100, 525-530nm, 18.1-23.5lm, 125mA	2.890	2.590	2.497	2.312
XL4550GRN-L100-G4-H-0001	0.5W, Green, L100, 530-535nm, 18.1-23.5lm, 125mA	2.890	2.590	2.497	2.312
XL4550RED-L100-R3-E-0001	0.5W, RED, L100, 625-630nm, 8.2-10.7lm, 125mA	1.847	1.655	1.596	1.477
XL4550RED-L100-R3-F-0001	0.5W, RED, L100, 625-630nm, 10.7-13.9lm, 125mA	1.966	1.761	1.699	1.573
XL4550RED-L100-R2-G-0001	0.5W, RED, L100, 620-625nm, 13.9-18.1lm, 125mA	2.026	1.815	1.750	1.620
XL7090AMB-L100-A2-J-0001	1W, Amber, L100, 585-590nm, 23.5-30.6lm, 350mA	2.822	2.529	2.438	2.258
XL7090AMB-L100-A3-M-0001	1W, Amber, L100, 590-595nm, 39.8-51.7lm, 350mA	2.913	2.610	2.517	2.330
XL7090BLU-L100-B3-F-0001	1W, Blue, L100, 465-470nm, 10.7-13.9lm, 350mA	4.097	3.671	3.539	3.277
XL7090BLU-L100-B3-G-0001	1W, Blue, L100, 465-470nm, 13.9-18.1lm, 350mA	4.233	3.793	3.657	3.387
XL7090BLU-L100-B4-G-0001	1W, Blue, L100, 470-475nm, 13.9-18.1lm, 350mA	4.233	3.793	3.657	3.387
XL7090CYN-L100-C3-M-0001	1W, Cyan, L100, 505-510nm, 39.8-51.7lm, 350mA	4.097	3.671	3.539	3.277
XL7090GRN-L100-G3-M-0001	1W, Green, L100, 525-530nm, 39.8-51.7lm, 350mA	4.097	3.671	3.539	3.277
XL7090GRN-L100-G2-N-0001	1W, Green, L100, 520-525nm, 51.7-67.2lm, 350mA	4.233	3.793	3.657	3.387
XL7090GRN-L100-G3-N-0001	1W, Green, L100, 525-530nm, 51.7-67.2lm, 350mA	4.233	3.793	3.657	3.387
XL7090GRN-L100-G4-N-0001	1W, Green, L100, 530-535nm, 51.7-67.2lm, 350mA	4.233	3.793	3.657	3.387



Power LEDs CREE NEW

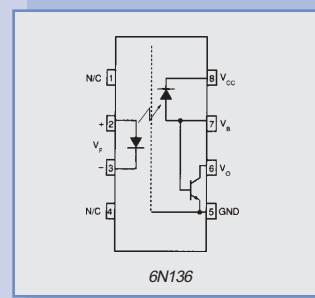
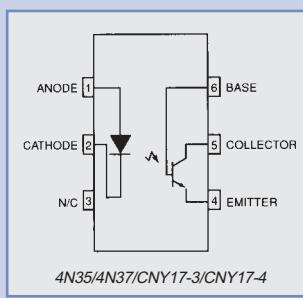
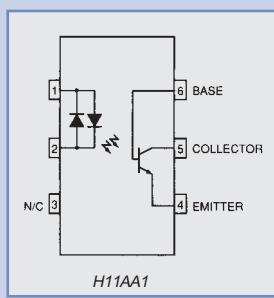
		1-4	5-24	25-99	100+
XL7090RED-L100-R2-J-0001	1W, Red, L100, 620-625nm, 23.5-30.6lm, 350mA	2.822	2.529	2.438	2.258
XL7090RED-L100-R2-K-0001	1W, Red, L100, 620-625nm, 30.6-39.8lm, 350mA	2.913	2.610	2.517	2.330
XL7090RED-L100-R2-M-0001	1W, Red, L100, 620-625nm, 39.8-51.7lm, 350mA	3.004	2.692	2.596	2.403
XL7090ROY-L100-RB5-10-001	1W, Royal Blue, L100, 460-465nm, 175-210mW, 350mA	4.217	3.778	3.644	3.374
XL7090ROY-L100-RB5-11-001	1W, Royal Blue, L100, 460-465nm, 210-250mW, 350mA	4.358	3.904	3.765	3.486
XL7090ROY-L100-RB5-12-001	1W, Royal Blue, L100, 460-465nm, 250-300mW, 350mA	4.498	4.030	3.886	3.599
XL7090WHT-L100-WG-M-0002	1W, White, L100, 5700-6300K, 39.8-45.7lm, 350mA	4.659	4.174	4.025	3.727
XL7090WHT-L100-WG-M-0003	1W, White, L100, 5700-6300K, 45.7-51.7lm, 350mA	4.820	4.318	4.164	3.856
XL7090WHT-L100-WD-M-0003	1W, White, L100, 5700-6300K, 45.7-51.7lm, 350mA	4.820	4.318	4.164	3.856
XL7090WHT-L100-WD-N-0002	1W, White, L100, 5700-6300K, 51.7-56.8lm, 350mA	4.980	4.462	4.303	3.984
3XL7090BL-L100-B3-J-001	3W, Blue, L100, 465-470nm, 23.5-30.6lm, 700mA	6.145	5.506	5.309	4.916
3XL7090BL-L100-B4-J-001	3W, Blue, L100, 470-475nm, 23.5-30.6lm, 700mA	6.145	5.506	5.309	4.916
3XL7090CW-L100-WD-P-003	3W, Cold White, L100, 5700-6300K, 73.9-80.6lm, 700mA	6.406	5.740	5.535	5.125
3XL7090CW-L100-WC-P-004	3W, Cold White, L100, 6300-7000K, 80.6-87.4lm, 700mA	6.627	5.938	5.726	5.301
3XL7090CW-L100-WD-P-004	3W, Cold White, L100, 5700-6300K, 80.6-87.4lm, 700mA	6.627	5.938	5.726	5.301
3XL7090CW-L100-WG-P-004	3W, Cold White, L100, 5700-6300K, 80.6-87.4lm, 700mA	6.627	5.938	5.726	5.301
3XL7090CW-L100-WD-Q-002	3W, Cold White, L100, 5700-6300K, 87.4-93.9lm, 700mA	6.804	6.096	5.878	5.443
3XL7090CW-L100-WG-Q-002	3W, Cold White, L100, 5700-6300K, 87.4-93.9lm, 700mA	6.804	6.096	5.878	5.443
3XL7090GR-L100-G2-P-001	3W, Green, L100, 520-525nm, 67.2-87.4lm, 700mA	6.104	5.469	5.274	4.883
3XL7090GR-L100-G3-P-001	3W, Green, L100, 525-530nm, 67.2-87.4lm, 700mA	6.104	5.469	5.274	4.883
3XL7090GR-L100-G3-Q-001	3W, Green, L100, 525-530nm, 87.4-113.6lm, 700mA	6.309	5.653	5.451	5.047
3XL7090RD-L100-R2-N-001	3W, Red, L100, 620-625nm, 51.7-67.2lm, 700mA	4.069	3.646	3.516	3.255
3XL7090RD-L100-R2-P-001	3W, Red, L100, 620-625nm, 67.2-87.4lm, 700mA	4.206	3.768	3.634	3.365
3XL7090RY-L100-D5-14-001	3W, Royal Blue, L100, 460-465nm, 350-425mW, 700mA	6.115	5.479	5.283	4.892
3XL7090RY-L100-D5-15-001	3W, Royal Blue, L100, 460-465nm, 425-500mW, 700mA	6.326	5.668	5.465	5.060
OPTX-1-006	Spot base module ±6° for CREE 7090	3.255	3.110	2.994	2.906
OPTX-1-DIF8	Diffuser sub-lens ±8° for CREE 7090	0.955	0.912	0.878	0.853
OPTX-1-016S	Wide sub-lens ±16° for CREE 7090	0.955	0.912	0.878	0.853
OPTX-3-008	Triple spot base module ±8° for CREE 7090	6.575	6.282	6.047	5.871
OPTX-3-014S	Triple wide sub-lens ±14° for CREE 7090	2.582	2.467	2.375	2.306
OPTX-3-MICRO	Triple MICRO sub-lens for CREE 7090	2.582	2.467	2.375	2.306

IR Devices

		1-9	10-99	100-499	500+
L-53P3BT	5mm 940nm PHOTOTRANSISTORS	0.106	0.092	0.086	0.076
L-53F3BT	5mm 940nm 3.7-7.2mW INFRARED LED	0.106	0.092	0.086	0.076
L-53SF6C	5mm 880nm IR LED	0.437	0.378	0.353	0.312
L-34SF6C	3mm 880nm IR-LED	0.437	0.378	0.353	0.312
L-932P3BT	3mm 940 nm PHOTOTRANSISTORS	0.106	0.092	0.086	0.076
L-934F3BT	3mm 940nm 2.6-3.6mcd/10mA IR LED	0.106	0.092	0.086	0.076
L-932P3C	3mm 940 nm PHOTOTRANSISTORS	0.106	0.092	0.086	0.076
L-934F3C	3mm 940nm 2.6-3.6mcd/10mA IR LED	0.106	0.092	0.086	0.076
KP-2012P3C	2.0x1.2mm (0805) 940nm 2.6-3.6mW phototransistor	0.103	0.089	0.083	0.074
KM2520F3C03	2.5x2.0mm 940nm INFRARED LED	0.125	0.108	0.101	0.089
RPT34PB3F ROHM	3mm 800nm 32V 30mA Phototransistor (compl. SIR34ST3F)	0.118	0.102	0.095	0.084
SIR34ST3F ROHM	3mm 950nm 8mW IR LED (compl. RPT34PB3F)	0.101	0.088	0.082	0.072
RPM7138CBR-S ROHM	IR receiver, 37.9 kHz, distance 15 m, Vol. 0.5V Voh 4.5V	0.615	0.531	0.496	0.439
RPM7140 ROHM NEW	IR receiver, 40 kHz, distance 15 m, Vol. 0.5V Voh 4.5V	0.370	0.320	0.299	0.264

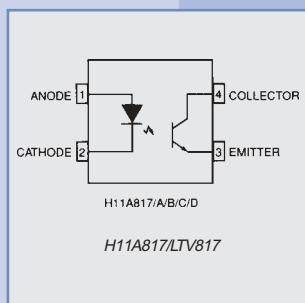
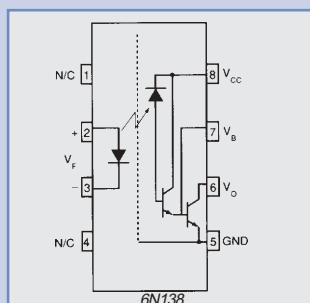
Opto-couplers with transistor output

		1-24	25-99	100-499	500+
H11AA1	DIL6	20%	30V 5.33V AC Input	0.364	0.330
H11D1	DIL6	20%	300V 7.5kV 5/5μS	0.516	0.468
H11G1	DIL6	1000%	100V 7.5kV 5/5μS	0.503	0.456
4N35 (LTV4N35)	DIL6	100%	70/30V 3.5kV 5/5μS	0.170	0.154



Opto-couplers with transistor output

			1-9	10-99	100-999	1000+
4N35-MOT	DIL6	100% 70/30V 3.5kV 5/5μS	0.171	0.155	0.132	0.122
4N35.S-MOT SMD	DIL6	100% 70/30V 3.5kV 5/5μS SMD	0.262	0.238	0.202	0.187
4N37	DIL6	100% 70/30V 2.5kV 5/5μS	0.168	0.153	0.130	0.120
6N136	DIL8	25% 0.20.6μS 2MHz	0.519	0.471	0.400	0.371
6N137	DIL8	5mA in 8TTL out 10Mbit/s 2.5kV	0.590	0.536	0.455	0.422
6N138	DIL8	2000% DARLINGTON 7V 2.5kV	0.557	0.505	0.430	0.398
CNY17-3	DIL6	100-200% 70/70V 7.5kV 6/5.5μS	0.191	0.174	0.148	0.137
CNY17-4	DIL6	160-320% 70/70V 7.5kV 6/5.5μS	0.197	0.179	0.152	0.141
CNY17-4.S SMD		160-320% 70/70V 7.5kV 6/5.5μS SMD	0.258	0.234	0.199	0.185



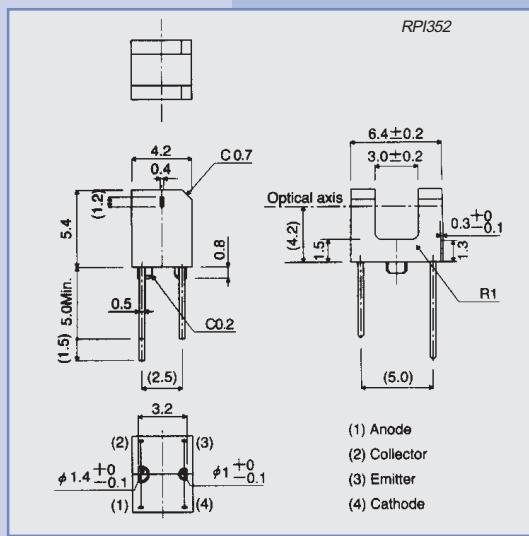
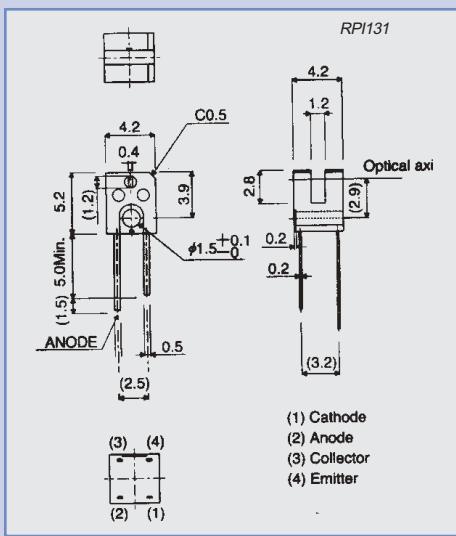
			1-9	10-99	100-999	1000+
H11A817C	DIL4	200-400% 35V 5.3kV 2.4/2.4μS	0.214	0.176	0.163	0.138
H11A817C.S SMD	DIL4	200-400% 35V 5.3kV 2.4/2.4μS	0.137	0.114	0.105	0.089
LTV817	DIL4	50-600% 35V 5kV 4/3μS	0.163	0.135	0.124	0.105
LTV817S SMD		50-600% 35V 5kV 4/3μS	0.180	0.149	0.137	0.116
LTV817CS SMD		50-600% 35V 5kV 4/3μS	0.277	0.229	0.211	0.179
TLP181GB SMD		100-600% 80V 3750V 3/3μS				

Opto-couplers with triac output

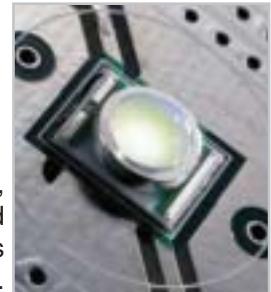
			1-24	25-99	100-499	500+
MOC3023		I LED 5mA 400V 7.5kV without synchr.	0.376	0.341	0.290	0.269
MOC3041		I LED 15mA 400V 7.5kV with synchr.	0.543	0.493	0.419	0.388
MOC3043		I LED 5mA 400V 5.0kV with synchr.	0.435	0.395	0.336	0.311
TLP3043		I LED 5mA 400V 5.0kV with synchr.	0.536	0.486	0.414	0.383
MOC3063		I LED 5mA 600V 7.5kV with synchr.	0.536	0.486	0.413	0.383
MOC3063 SMD		I LED 5mA 600V 7.5kV with synchr.	0.512	0.464	0.395	0.365
TLP3063		I LED 5mA 600V 5.0kV with synchr.	0.550	0.499	0.425	0.393
MOC3083		I LED 5mA 800V 7.5kV with synchr.	0.768	0.697	0.593	0.549

Opto-couplers with air gap

			1-24	25-99	100-499	500+
H21A1		5% 30V 60mA 3.15mm -55+100°C	0.629	0.559	0.499	0.466
RPI-131 ROHM		3.5% 30V 50mA 10/10uS 1.2mm -25+85°C	0.307	0.273	0.244	0.228
RPI-352 ROHM		1.0% 30V 50mA 10/10uS 3.0mm -25+85°C	0.258	0.229	0.204	0.191
RPI-574 ROHM		2.5% 30V 50mA 10/10uS 5mm -25+85°C	0.272	0.242	0.215	0.201



Power LED lamps from Cree 0.5W, 1W and 3W



It is not a question of **whether** LEDs can replace the traditional lamps, but **when**. XLamp high brightness LEDs are available in 0.5W, 1W and 3W versions, all offering precise binning options, a full range of colors and Cree's unique electrically neutral thermal path and SMD packages.

Color	Dominant wavelength (nm) or color temperature (K)		Typical Luminous or Radiant flux at rated current					
	Min.	Max.	XLamp™ 3 7090	XLamp™ 7090		XLamp™ 4550		
				XL Series	XR Series NEW			
White	4500 K	8000 K	76 lm	45 lm	57 lm	-		
Royal Blue	455nm	465nm	385 mW	255 mW	255mW	65 mW		
Blue	465nm	475 nm	28 lm	19 lm	19 lm	4.5 lm		
Cyan	500 nm	510 nm	75 lm	45 lm	45 lm	-		
Green	520 nm	535 nm	80 lm	45 lm	52 lm	18 lm		
Amber	585 nm	595 nm	57 lm	27 lm	42 lm	8.4 lm		
Red-Orange	610 nm	620 nm	86 lm	49 lm	49 lm	-		
Red	620 nm	635 nm	61 lm	34 lm	40 lm	12 lm		
Maximum forward current, $I_{F\max}$		Royal Blue, Blue, Cyan, Green, Red-Orange, White > 4444K	700 mA	350 mA	700 mA	125 mA		
		Amber, White < 4444K			350 mA			
Maximum forward voltage at $I_{F\max}$ (royal blue, blue, cyan, green, white)			4.5 V	4.0 V	4.0 V	4.0 V		
Maximum forward voltage at $I_{F\max}$ (amber, red-orange, red)			3.0 V	3.0 V	3.0 V	3.0 V		
Maximum Reverse Voltage			5.0 V	5.0 V	5.0 V	5.0 V		
Viewing angle			100 deg.	100 deg.	100 deg.	100 deg.		
Operating temperature range			-40 + 85 °C	-40 + 85 °C	-40 + 85 °C	-20 + 85 °C		
Thermal Resistance, junction to solder point	royal blue, blue, cyan, green, white		17 °C/W	17 °C/W	8 °C/W	35 °C/W		
	amber, red-orange, red				15 °C/W			
Thermal Resistance, junction to solder point	royal blue, blue, cyan, green, white		145 °C	125 °C	145 °C	125 °C		
	amber, red-orange, red		130 °C		125 °C			
Temperature coefficient of voltage (royal blue, blue, cyan, green, white), mV/°C			-3.0 to -2.8	-3.0 to -2.8	-3.0 to -2.8	-3.0 to -2.8		
Temperature coefficient of voltage (amber, red-orange, red), mV/°C			-3.2 to -3.0	-3.2 to -3.0	-3.2 to -3.0	-3.2 to -3.0		
ESD Classification (HBM per Mil-Std-883D)			Class 2	Class 2	Class 2	Class 2		

Optic lenses

The optic modules and sub-lenses enhance the light output of your system and allow different optic characteristic to be achieved for any specific application.



Order code	Description
OPTX-3-008	Triple spot base module ±8° for CREE 7090
OPTX-3-MICRO	Triple MICRO sub-lens for CREE 7090
OPTX-3-014S	Triple wide sub-lens ±14° for CREE 7090
OPTX-1-006	Spot base module ±6° for CREE 7090
OPTX-1-016S	Wide sub-lens ±16° for CREE 7090
OPTX-1-DIF8	Diffuser sub-lens ±8° for CREE 7090



Power LED modules

Easy to use LED modules with CREE high power LEDs mounted on insulated steel plate from Comet Electronics

CREE R03 STEEL PCB

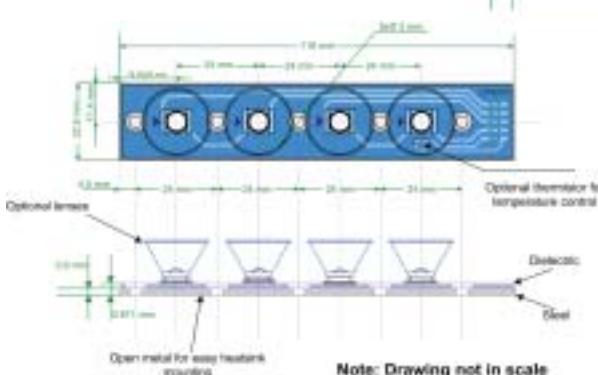
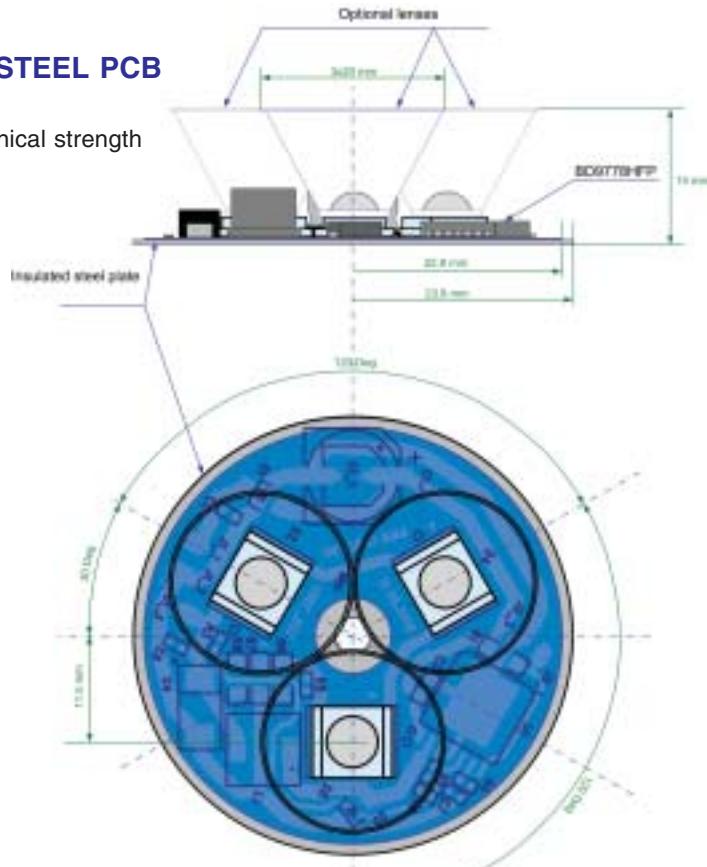
- ◆ Steel base with excellent mechanical strength and small temperature resistance;
- ◆ Easy heatsink mounting;
- ◆ Three 1-watt LEDs **XLamp™ 7090**
- ◆ Integrated switching driver **BD9778HFP ROHM**
- ◆ Input voltage 14 to 30 V
- ◆ Forward current set by two resistors:

$$I_F = \frac{1}{R_{CS}} - \frac{V_F}{R_{CS} \times (R_3 + R_6)} \times (R_6 + R_{CS})$$

- ◆ Option for external dimming with PWM;
- ◆ Optional lenses;
- ◆ Version without driver.

More information about the switching controller **BD9778HFP ROHM**, you can find on our web site www.comet.bg.

Comet Electronic's Power LED modules **CREE R03 STEEL PCB** and **CREE 4x3W STEEL PCB** are available in whole color range of CREE products.



CREE 4x3W STEEL PCB

- ◆ Steel base with excellent mechanical strength and small temperature resistance;
- ◆ Four LEDs **XLamp™ 7090 1W** or **XLamp™ 3 7090 3W**;
- ◆ Two separated LED pairs for flexibility;
- ◆ Optional thermistor;
- ◆ Optional lenses;
- ◆ Easy heatsink mounting.

ROHM and **Comet Electronics** offer you high power flexible switching regulator with output current up to 2 A, suitable for powering electronic modules like printer modules, scanners, GSM modules.

- ◆ High maximum output current (2A);
- ◆ Wide input voltage range;
- ◆ On chip switching MOSFET;
- ◆ Adjustable output voltage up to V_{IN}
- ◆ Selectable operating frequency up to 500 kHz;
- ◆ Wide operating temperature range;
- ◆ Over current protected output;
- ◆ Built in temperature shut down circuit;
- ◆ Enable pin for external mode control;
- ◆ 5.5W SMD package HRP7

BD9778HFP		
Parameter	Value	Unit
Output current	2	A
Maximum power dissipation	5.5	W
Supply voltage V_{IN}	5 to 35	V
Output voltage	1 to V_{IN}	V
Reference voltage precision	± 2	%
Operating temperature	-40 to +125	°C
Operating frequency	50 to 500	kHz
Soft start	5	ms
Oscillation mode	Self oscillation	
Package	HRP7	

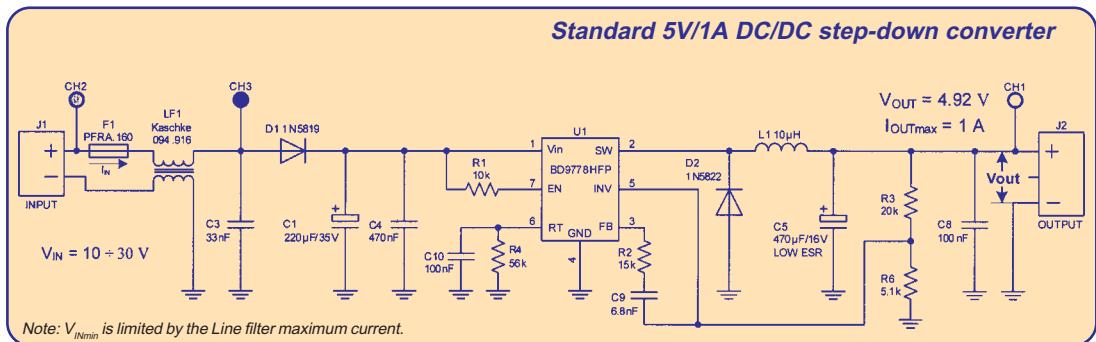
BD9778HFP Demo PCB

The BD9778HFP Demo board is capable of working as standard SMPS module, or as Constant Current High Power LED driver.

Applications:

- ◆ Powering Sony Ericsson M2M GSM/GPRS radio devices GM/GR47 and GR/GS64.
- ◆ Constant Current High Power LED driver, suitable for CREE XLamp series.

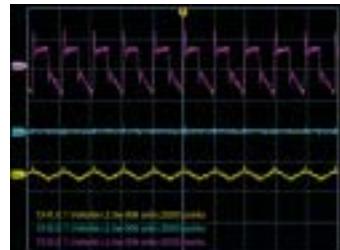
Application schematics supported by BD9778HFP Demo PCB



Output voltage calculation

$$V_{OUT} = V_{REF} \times (1 + \frac{R_3}{R_6}), V_{REF} = 1.00 \text{ V internally generated}$$

Input and output ripple

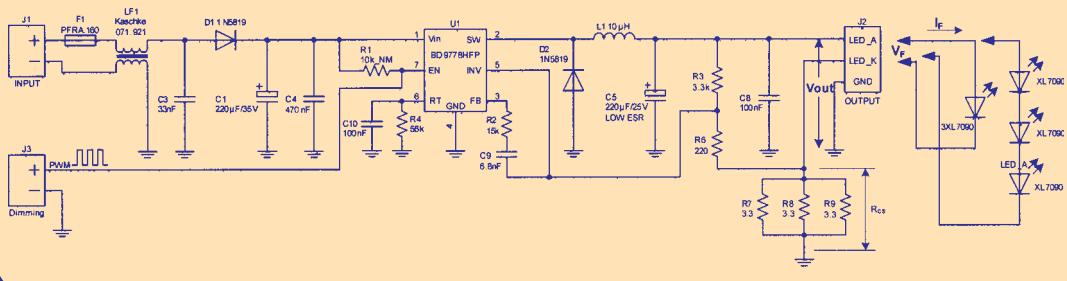


CH1 – Output, CH2 – Input noise with LF1,
CH3 – Input noise without LF1

Output voltage: $V_{OUT} = 4.92\text{V};$
Input voltage: $V_{IN} = 12\text{V};$
Output current: $I_{OUT} = 1\text{A};$
Operating frequency: $f_{SW} = 440\text{kHz};$
Ambient temperature: $T_A = 25^\circ\text{C};$
Input current : $I_{IN} = 540\text{mA}.$

Designator	Part	Order code	Note
U1	BD9778HFP	BD9778HFP ROHM	HRP7
D1	IN5819	IN5819(SS14) SMD (SMA)	Schottky
D2	IN5822	IN5822(SS34) SMD (SMC)	Schottky
L1	Inductor 10 μH	CL10uH DRH125	SMD
LF1	2x22 mH, 0.8 A	Kaschke 094.916	Line filter
F1	1.6 A fuse	PFRA.160 SCHURTER	Resettable
C1	Capacitor 220 μF	CE 220uF 35V Fujicon	Electrolytic
C3	Capacitor 33 nF	C1206 33nF 50V X7R	Ceramic
C4	Capacitor 470 nF	C1206 470nF 50V X7R	Ceramic
C5	Capacitor 470 μF	CE 470uF 16V 10SC LOW ESR	LOW ESR
C8, C10	Capacitor 100 nF	C1206 100nF 50V X7R	Ceramic
C9	Capacitor 6.8 nF	C1206 6.8nF 50V X7R	Ceramic
R1	Resistor 10k Ω 5%	R1206 10K 5%	
R2	Resistor 15k Ω 1%	R1206 15K 1%	Precise
R3	Resistor 5.1k Ω 1%	R1206 5.1K 1%	Precise
R4	Resistor 56k Ω 1%	R1206 56K 1%	Precise
R6	Resistor 20k Ω 1%	R1206 20K 1%	Precise
J1	Terminal block 2 pin	TS-502 2P	
J2	Terminal block 3 pin	TS-502 3P	
PCB	PCB, no components	BD9778HFP Demo PCB	

White Power LED driver with dimming



The application shown above is capable for driving 3 CREE white 1W LEDs XL7090 at 320 mA or 1 white 3W LED 3XL7090 at 680mA. The switching frequency is 440 kHz.

Designator	Part	Order code	Note
U1	BD9778HFP	BD9778HFP ROHM	
D1, D2	1N5819	1N5819(S14) SMD (SMA)	Schottky
L1	Inductor 10 μ H	CL10uH SD73	SMD
LF1	2x12 mH, 0.54A	Kaschke 071.921	Line filter
F1	1.6 A fuse	PFRA.160 SCHURTER	Resettable
C1	Capacitor 220 μ F	CE220uF 35V Fujicor	Electrolytic
C3	Capacitor 33 nF	C1206 33nF 50V X7R	Ceramic
C4	Capacitor 470 nF	C1206 470nF 50V X7R	Ceramic
C5	Capacitor 220 μ F	CE220uF 25V 105C LOW ESR	LOW ESR
C8, C10	Capacitor 100 nF	C1206 100nF 50V X7R	Ceramic
C9	Capacitor 6.8 nF	C1206 6.8nF 50V X7R	Ceramic
R1	Resistor 10k Ω 5%	R1206 10K 5%	
R2	Resistor 15k Ω 1%	R1206 15K 1%	Precise
R3	Resistor 3.3k Ω 1%	R1206 3.3K 1%	Precise
R4	Resistor 56k Ω 1%	R1206 56K 1%	Precise
R6	Resistor 220 Ω 1%	R1206 220R 1%	Precise
R7, R8, R9	Resistor 3.3 Ω 1%	R1206 3.3R 1% SAMSUNG	Precise
J1, J3	Terminal block 2 pin	TS-502 2P	
J2	Terminal block 3 pin	TS-502 3P	
PCB	PCB, no components	BD9778HFP Demo PCB	

Driving 3 white 1W LEDs XL7090

(R1 mounted, no dimming)

Forward LEDs current: $I_F = 320\text{mA}$;
Forward LEDs voltage: $V_F = 10.3\text{V}$
(Over all 3 LEDs);

Total output voltage: $V_{\text{OUT}} = 10.68\text{V}$;

Input voltage range: $V_{\text{IN}} = 14 - 30\text{V}$;

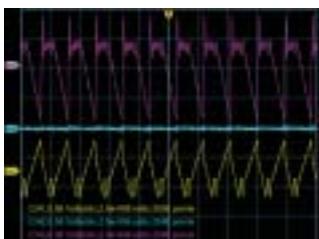
Operating frequency: $f_{\text{SW}} = 440\text{kHz}$;

Input current @ V_{INmin} : $I_{\text{INmax}} = 300\text{mA}$;

CH1 – Output;

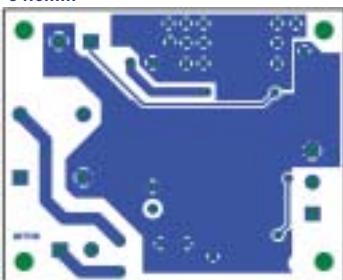
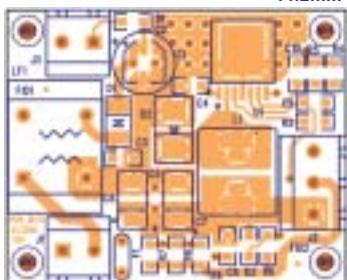
CH2 – Input noise with LF1;

CH3 – Input noise without LF1.



BD9778HFP Demo PCB

44.2mm x 54.6mm



Calculating the forward LED current I_F (no dimming)

$$I_F = \frac{1}{R_{\text{CS}}} - \frac{V_F}{R_{\text{CS}} \times (R_3 + R_6)} \times (R_6 + R_{\text{CS}})$$

Dimming 3 white 1W LEDs XL7090

(Resistor R1 is not mounted, dimming through J3)

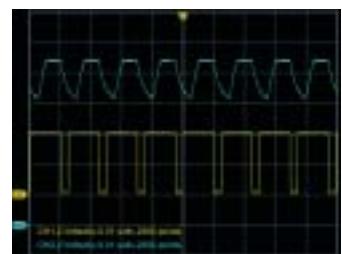
Input voltage: $V_{\text{IN}} = 18\text{V}$;
Dimming frequency: $f_{\text{DIMM}} = 80\text{Hz}$;
Operating frequency: $f_{\text{SW}} = 440\text{kHz}$;

Forward LEDs current: $I_F = 200\text{mA}$;

Forward LEDs voltage: $V_F = 9.6\text{V}$

(Over all 3 LEDs);

Duty cycle: $D = t_{\text{ON}}/T = 0.81$.

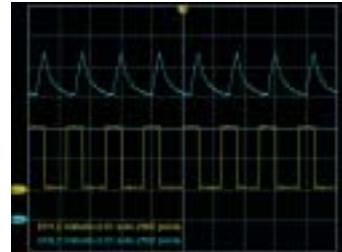


Forward LEDs current: $I_F = 80\text{mA}$;

Forward LEDs voltage: $V_F = 8.7\text{V}$

(Over all 3 LEDs);

Duty cycle: $D = t_{\text{ON}}/T = 0.42$.



CH1 – PWM Pulse train
CH2 – Output voltage

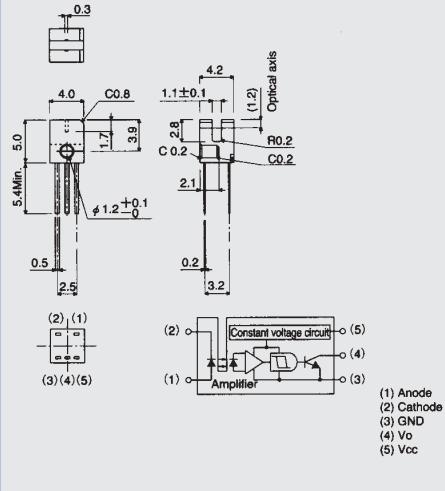
Opto-couplers with air gap

RPI-1133 ROHM
RPI-1391 ROHM
RPR-220 ROHM

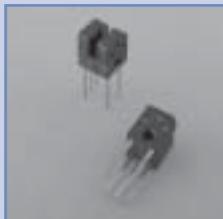
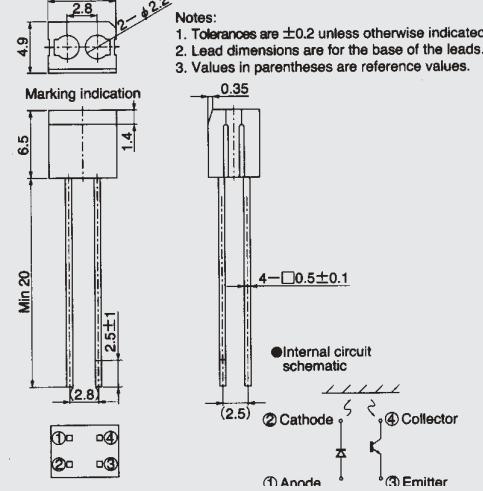
w trigger Vcc 2-7V I_o 10mA 1.1mm -20+60°C
w trigger Vcc 4-17V I_o 20mA 4.0mm -20+85°C
3% 30V 50mA 10/10uS -25+85°C reflective d=6mm

1-24	25-99	100-499	500+
0.568	0.504	0.450	0.420
0.776	0.690	0.615	0.575
0.695	0.618	0.551	0.515

RPI1133



RPR220



RPI1133



RPR220



RPI574 RPI1391 RPI352

Fuses SCHURTER

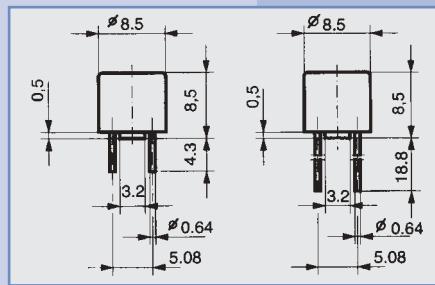
SCHURTER MST250 0.315A
SCHURTER MST250 0.5A
SCHURTER MST250 1A
SCHURTER MST250 2A
SCHURTER MST250 2.5A
SCHURTER MST250 3.15A

Time-lag fuse 0.315A PCB
Time-lag fuse 0.5A PCB
Time-lag fuse 1A PCB
Time-lag fuse 2A PCB
Time-lag fuse 2.5A PCB
Time-lag fuse 3.15A PCB

1-4	5-24	25-99	100+
0.304	0.271	0.241	0.226
0.304	0.271	0.241	0.226
0.304	0.271	0.241	0.226
0.304	0.271	0.241	0.226
0.277	0.246	0.219	0.205
0.304	0.271	0.241	0.226



MST250

**IC protectors ROHM**

ICP-N15T104 ROHM
ICP-N20T104 ROHM
ICP-N25T104 ROHM
ICP-N38T104 ROHM
ICP-N50T104 ROHM

IC protector 0.6A; R_{int}. 0.135ohm
IC protector 0.8A; R_{int}. 0.100ohm
IC protector 1.0A; R_{int}. 0.070ohm
IC protector 1.5A; R_{int}. 0.042ohm
IC protector 1.5A; R_{int}. 0.042ohm

1-4	5-24	25-99	100+
0.160	0.142	0.127	0.118
0.160	0.142	0.127	0.118
0.160	0.142	0.127	0.118
0.160	0.142	0.127	0.118
0.193	0.172	0.153	0.143

ZD3R

Gas Discharge Tube, 3 electrodes, 230V

1.131	1.049	0.976	0.912
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Electromechanical components

 SCHURTER

Fuses and fuseholders

Schurter's broad range of fuses include miniature and sub-miniature resettable, non-resettable, Telecom and Fuseholders for panel, through-hole and SMT mounting.

Fuses / Type	Nominal voltage	Nominal current	Breakdown current/voltage
PFMF – SMD, resettable	13.2-60V	0.1-0.75A	40A/60V-100A/13.2V
PFRA – through hole, resettable	16 – 60V	0.1-11A	40A/60V/
MST250 – through hole, non-resettable	250V	0.05-6.3A	35A



For panel mount



Product group: Fuseholders

For PCB mount



Open Type



Parameters:

Voltage:
250 - 600 V

Current: up to 50 A

Fuse dimensions:
10.3 x 38 mm
4.7 x 16 mm
5 x 20 mm
6.3 x 32 mm

Product group: Fuseholders
blocks&Clips

Circuit breakers for Equipment

Thermal (T-Line, TA45) and thermal-magnetic (TM12, AS168X) circuit breakers for equipment are available from Schurter company. Thermal CBEs have good simulation of the thermal behaviour of the protected component, capability of copying with start-up and inrush currents, suitability for a wide range of frequencies, simplicity/reliability and favorable price. Thermal-magnetic CBEs have two releases to achieve automatic interruption of an overcurrent – a thermo-bimetal for overload current and an electro-magnet for short circuit current.



Thermal



Voltage: up to 400/60V AC/DC

Current: up to 30 A

Product group: Thermal

Thermal-magnetic



Voltage: up to 480/360V AC/DC

Current: up to 52 A

Product group: Thermal-magnetic

Undervoltage Protection



Voltage: up to 400/60V AC/DC

Current: up to 20 A

Product group: Undervoltage Protection

Switches and keypads

Schurter offers wide variety of vandal proof and membrane switches and key pads metal switches with or without illumination, for panel or PCB mounting.



Metal line switches and Sensor switches

Mechanical switches with or without illumination

Series MCS 18/19/22/30

Series SSM MSM 16/19/22/30



Parameters:

Voltage:
24 - 250 V

Product group: Metal Line Switches

Piezo switches without mechanical parts

Series PSE M

16/19/22/24/27/30



Current:
up to 10 A

Product group: Metal Line Switches

Sensor Switches
Capacitive series:
CSE 15/16/25, CLS 16
Optical series: OES 2001



Capacitive



Optical

Parameters:

Voltage:
5 - 30 V
Current:
up to 400 mA

Product group: Sensor Switches



Power entry modules and connectors

Schurter offers great number of power entry modules with or without integrated switches, line filters and fuseholders delivering extra-safe handling protection against contact with live parts.

Panel mount connectors



Power entry modules without filters



Product group: Power Entry Modules without Filter

Power entry modules with filters



Product group: Connectors (Inlets/Outlets)

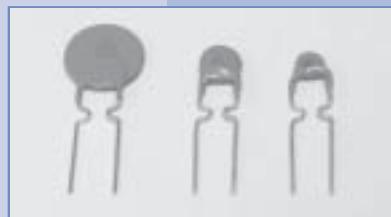
Product group: Power Entry Modules with Filter

Resettable Fuses SCHURTER

		1-24	25-99	100-499	500+
PFRA.010 SCHURTER	Resettable Fuse lh 0.1A; 60V; 2.50-4.50R	0.263	0.234	0.209	0.195
PFRA.030 SCHURTER	Resettable Fuse lh 0.3A; 60V; 0.76-1.36R	0.268	0.239	0.213	0.199
PFRA.065 SCHURTER	Resettable Fuse lh 0.65A; 60V; 0.27-0.48R	0.350	0.311	0.277	0.259
PFRA.090 SCHURTER	Resettable Fuse lh 0.9A; 60V; 0.14-0.31R	0.278	0.247	0.220	0.206
PFRA.110 SCHURTER	Resettable Fuse lh 1.1A; 30V; 0.10-0.18R	0.341	0.303	0.270	0.253
PFRA.160 SCHURTER	Resettable Fuse lh 1.6A; 30V; 0.055-0.105R	0.352	0.313	0.279	0.261
PFRA.185 SCHURTER	Resettable Fuse lh 1.85A; 30V; 0.04-0.07R	0.368	0.327	0.292	0.273
PFRA.300 SCHURTER	Resettable Fuse lh 3A; 30V; 0.02-0.05R	0.406	0.361	0.322	0.301
SCHURTER PFMF.020.2	Resettable Fuse lh 0.2A; 60V; SMD	0.218	0.194	0.173	0.161
SCHURTER PFMF.030.2	Resettable Fuse lh 0.3A; 60V; SMD	0.196	0.174	0.155	0.145



MFR300 MFR185 MFR110



MFR090 MFR030 MFR010

Resettable Fuses

		1-24	25-99	100-499	500+
MF-R010	Resettable Fuse lh 0.1A; 60V; 2.50-4.50R	0.305	0.271	0.242	0.226
MF-R030	Resettable Fuse lh 0.3A; 60V; 0.76-1.36R	0.304	0.270	0.241	0.225
MF-R065	Resettable Fuse lh 0.65A; 60V; 0.27-0.48R	0.309	0.275	0.245	0.229
MF-R090	Resettable Fuse lh 0.9A; 60V; 0.14-0.31R	0.309	0.275	0.245	0.229
MF-R110	Resettable Fuse lh 1.1A; 30V; 0.10-0.18R	0.321	0.285	0.255	0.238
MF-R160	Resettable Fuse lh 1.6A; 30V; 0.055-0.105R	0.333	0.296	0.264	0.247
MF-R185	Resettable Fuse lh 1.85A; 30V; 0.04-0.07R	0.344	0.306	0.272	0.255
MF-R300	Resettable Fuse lh 3A; 30V; 0.02-0.05R	0.344	0.306	0.272	0.255

Fuseholders

		1-9	10-99	100-499	500+
PC125	Fuse holder for fuse 5x20mm	0.387	0.352	0.299	0.277
FUSE HOLDER PCB P15	Fuse holder for fuse 5x20mm PCB P15mm	0.129	0.117	0.100	0.092
KEYSTONE 3518P	Fuse clip for fuse 5x20mm PCB	0.131	0.119	0.101	0.093
KEYSTONE 3522 EW	PC auto fuse clip	0.128	0.116	0.099	0.091
KEYSTONE 3525 EW	PC auto fuse clip	0.137	0.124	0.106	0.098
KEYSTONE 3531	6.3mm Fuse clip	0.105	0.096	0.081	0.075
KEYSTONE 3566	13/32 PC Fuse clip	0.287	0.261	0.222	0.205

Information about offered power and main connectors and power entry modules of plugs, switch and fuse receptacles is available in Section "Audio, Video, Power & Main Connectors" on page 111.

Relays

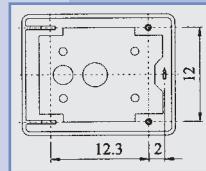
		1-9	10-99	100+	500+
EDR201A0503	DIP14 REED RELAY 5V 0.5/1A 10VA 100Vdc 1/0.5ms	1.091	1.002	0.894	
EDR201A1203	DIP14 REED RELAY 12V 0.5/1A 10VA 100Vdc 1/0.5ms	1.124	1.032	0.922	
MI-SS-112L	12V/44.4mA 10A/250VAC 10A/30VDC 10A max	0.907	0.823	0.740	0.698
MI-SS-212L	12V/44.4mA 5A/250VAC 5A/30VDC 5A max	1.063	0.965	0.867	0.818
MI-SS-224L	24V/21.8mA 5A/250VAC 5A/30VDC 5A max	1.063	0.965	0.867	0.818
EMI-SH-112D	12V/33.3mA 12A/250VAC 12A/30VDC 12A max	1.092	0.991	0.890	0.840
EMI-SH-124D	24V/16.7mA 12A/250VAC 12A/30VDC 12A max	1.092	0.991	0.890	0.840
EZ-SS-112D	12V/33.3mA 16A/250VAC 16A/30VDC 16A max	1.092	0.991	0.890	0.840
EZ-SS-124D	24V/16.7mA 16A/250VAC 16A/30VDC 16A max	1.092	0.991	0.890	0.840
EMI-SH-212D	12V/33.3mA 8A/250VAC 8A/30VDC 8A max	1.133	1.029	0.924	0.872
EMI-SH-224D	24V/16.7mA 8A/250VAC 8A/30VDC 8A max	1.175	1.067	0.958	0.904
MD-5	Reed 5V/10mA 0.5A/20V 0.1A/100V 1Amax	0.649	0.589	0.529	0.499
MD-12	Reed 12V/12mA 0.5A/20V 0.1A/100V 1Amax	0.791	0.718	0.645	0.609
MD-5-T	Reed 5V/10mA 0.5A/20V 0.1A/100V 1Amax, DIP	1.439	1.307	1.174	1.107
MD-12-T	Reed 12V/12mA 0.5A/20V 0.1A/100V 1Amax, DIP	0.732	0.665	0.597	0.563



EDR201Axxxx



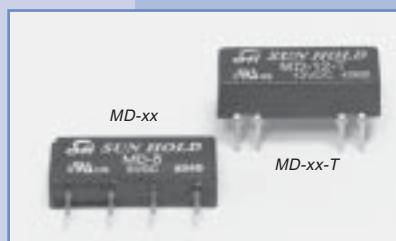
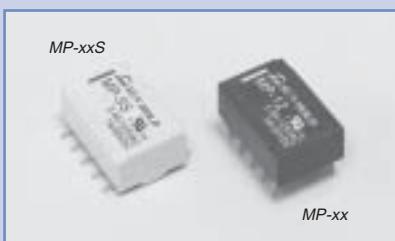
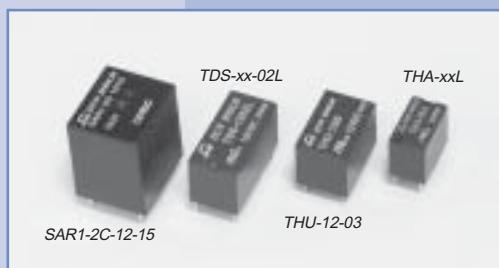
RAS-xx-xx



RAS-xx-xx

Relays

		1-9	10-99	100+	500+
MP-5	Reed 5V/28mA 1A/30V 0.5A/125V 1Amax, DIP	1.044	0.948	0.851	0.803
MP-5S	Reed 5V/28mA 1A/30V 0.5A/125V 1Amax, SMD	1.356	1.231	1.106	1.043
MP-9	Reed 9V/15mA 1A/30V 0.5A/125V 1Amax, DIP	1.044	0.948	0.851	0.803
MP-12	Reed 12V/11.7mA 1A/30V 0.5A/125V 1Amax, DIP	1.044	0.948	0.851	0.803
MP-12S	Reed 12V/11.7mA 1A/30V 0.5A/125V 1Amax, SMD	1.356	1.231	1.106	1.043
TDS-05-02-L	5V/40mA 2A/28VDC 0.5A/120VAC 3A max	1.795	1.629	1.463	1.380
TDS-12-02-L	12V/17mA 2A/28VDC 0.5A/120VAC 3A max	0.757	0.658	0.611	0.582
TDS-24-02-L	24V/8mA 2A/28VDC 0.5A/120VAC 3A max	0.794	0.721	0.647	0.611
RAS-05-15	24V/15mA 15A/24VDC(120VAC) 10A/250VAC	0.428	0.380	0.339	0.317
RAS-12-15	12V/30mA 15A/24VDC(120VAC) 10A/250VAC	0.419	0.381	0.342	0.323
RAS-12-20M	24V/15mA 15A/24VDC(120VAC) 10A/250VAC	0.534	0.474	0.423	0.395
RAS-24-15	24V/15mA 15A/24VDC(120VAC) 10A/250VAC	0.438	0.389	0.347	0.324
SAR1-2C-12-15	12V/77mA 15A/12VDC(120VAC)	0.810	0.735	0.660	0.623
SCB-1-M-12-40	12V/117mA 40A/12VDC 25A/24VDC 50A max	1.197	1.086	0.976	0.921
SCB-1-M-24-40	24V/75mA 40A/12VDC 25A/24VDC 50A max	1.576	1.430	1.285	1.212
SG4-05-20A	5V/180mA 20A/250VAC 25A max	1.529	1.388	1.247	1.176
SG4-12-20A	12V/75mA 20A/250VAC 25A max	2.189	1.987	1.785	1.684
SG4-24-20A	24V/37.5mA 20A/250VAC 25A max	2.222	2.017	1.812	1.709
RX2-12-40	12V/133mA 40A/24VDC 40A/14VDC 45A max	0.891	0.792	0.706	0.660
RT1-12-30	12V/77mA 30A/220VAC 30A/120VAC 30A max	1.185	1.076	0.966	0.911
THA-5L	5V/30.0mA 1A/60VDC 1A/125VAC 1A max	0.848	0.754	0.672	0.628
THA-12L	12V/12.5mA 1A/60VDC 1A/125VAC 1A max	0.848	0.754	0.672	0.628
THA-24	24V/6.3mA 1A/60VDC 1A/125VAC 1A max	0.882	0.784	0.699	0.653
THU-12-03	12V/17mA 3A/60VDC, 3A/24VDC 3A max	0.559	0.497	0.443	0.414
TNC-1C-05-12	5V/66.7mA 12A/250VAC 12A/30VDC 12A max	1.080	0.981	0.881	0.831
TJQ-05-10	5V/40mA 10A/250VAC 10A/30VDC 12A max	1.601	1.454	1.306	1.232
TJQ-12-10	12V/16.7mA 10A/250VAC 10A/30VDC 12A max	1.601	1.454	1.306	1.232
SJV-24-16A	24V/8.3mA 16A/125VAC 10A/250VAC 16A max	1.483	1.346	1.209	1.141
SOW-18-30A	18V/50.0mA 30A/120VAC 15A/30VDC 35A max	2.242	2.035	1.828	1.725

**Solid State Relays**

		1+
SSR 10A 5-32VDC	input 5-32VDC load 10A 250VAC zero cross	11.670
SSR 10AN 5-32VDC	input 5-32VDC load 10A 250VAC	11.670
SSR 10B 220VAC	input 220VAC load 10A 250VAC zero cross	11.670
SSR 10BN 220VAC	input 220VAC load 10A 250VAC	11.670
SSR 20A 5-32VDC	input 5-32VDC load 20A 250VAC zero cross	17.115
SSR 20AN 5-32VDC	input 5-32VDC load 20A 250VAC	17.115
SSR 20B 220VAC	input 220VAC load 20A 250VAC zero cross	17.115
SSR 20BN 220VAC	input 220VAC load 20A 250VAC	17.115
SSR 25D/24V	input 5-32VDC load 25A 18-32VDC	24.219
SSR 25D/36V	input 5-32VDC load 25A 28-46VDC	24.219
SSR 25D/48V	input 5-32VDC load 25A 28-55DC	24.219
SSR 2X10A NPN type	input 18-32VDC load 2x10A	20.921
SSR 2X10A PNP type	input 18-32VDC load 2x10A	20.921
SSR 2X10C NPN type	input 18-32VDC load 2x10A	19.365
SSR 2X10C PNP type	input 18-32VDC load 2x10A	19.365
SSR 40A 5-32VDC	input 5-32VDC load 40A 250VAC zero cross	19.635
SSR 40AN 5-32VDC	input 5-32VDC load 40A 250VAC	19.635
SSR 40B 220VAC	input 220VAC load 40A 250VAC zero cross	19.635
SSR 40BN 220VAC	input 220VAC load 40A 250VAC	19.635

tyco

Electronics

Innovative technologies and solutions

Switches – A wide range of panel mount and PCB mount switches for standard and industrial applications, power supply switches and rotary encoders and etc.



Relays, timers and contactors – general purpose relays, telecommunication relays, high voltage and special purpose relays, contactors and timers.

Connectors and terminal blocks – A diversity of standard and special connectors and terminal blocks, RF connectors, telecommunication fiber optic and industrial connectors.



Fuses and circuit breakers – Magnetic and thermal circuit breakers, polymeric resettable fuses, miniature SMD fuses, gas discharge tubes and etc.

Power supply modules – Insulated and non insulated DC/DC converters, filter modules, heatsinks and shelf mounted power supplies for modular systems.



Harnessing and protection products – Heat-shrinkable tubes with different shrink ratio, chemical resistant tubes, modular heat-shrinkable tubes for cable splitting, flexible cable protection tubes and special optic fiber components.

Communication network products

– all you need to build a communication network – coupling closures, terminators, connectors, terminal blocks and cabinets for outdoor and indoor use, optic fiber network components and etc.



Wireless products – RF amplifiers, attenuators, splitters, generators, mixers, filters, ceramic, PCB and standard GPS, GSM, Bluetooth, WLAN antennas and etc.



Fiber optics – Connectors, cable assemblies, amplifiers, attenuators, splitters and installation tools for building optical networks.



Embedded modules – GPS, telemetry and RF LNA modules, electronic relays and power IGBT driver modules



Touchscreen monitors – A wide variety of LCD and CRT touchscreen monitors for panel mount or desktop use.



Specialty automotive products – Electronic modules, sensors and components specially designed for automotive industry.



Energy, power and utility products – components and accessories for power networks, insulators, terminators, sealings, heat-shrinkable tubes,

high voltage connectors and fittings, lightning systems and accessories.



metal and plastic identification markers.

Identification and labeling products – A wide range of plastic heat-shrinkable cable markers, tube identification markers, adhesive plastic markers and printers for them,



Sensors – Tyco offers a product range of special automotive sensors, contactless position

Motors – A variety of electrical AC and DC motors with different power and applications from electrical pumps and hand held tools to office equipment.



Cables and cable assemblies – Cable assemblies for medical equipment, standard interface and RF cable assemblies, power supply cables, special and standard wires and cables, coaxial cables and etc.

Thermal management products – Heatsinks for electronic equipments, fans and modules for thermal managements.



Batteries – A diversity of battery packs and accessories for mobile applications.



Passive electronic components – A huge product lines of inductors, capacitors and resistors for SMD and through hole mounting, potentiometers and trimmers.



EMI/RFI Filters – Single and three phase line filters, power entry modules with integrated line filters, standard interface connectors with signal filters and etc.

**B&H
AMP
AUGAT
AXICOM
AGASTAT
CORCOM
HARTMAN
CGS, CITEC
BUCHANAN
ALCOSWITCH
CRITCHLEY, ELCON,
ELO, GREENPAR,
HTS, TRANSPower
COEV MAGNETICS**



**P&B
OEG
IDENTO
NEOHM
KILOVAC
SCHRACK
RAYCHEM
MICRODOT
PRECISION
HOLSWORTHY
MADISON CABLE
INTERCONNECT
SIGMA INDUCTORS
PANGESTAR**

More information about Tyco Electronics products, you can find on www.tycoelectronics.com.
For prices and availability, please contact Comet Electronics!

Switches

SS-22F01G3
SS-22F01G9
SS-22F01AT12
SS-22F07G7
SS-22F07AT9
SS-22F12G7
SS-22F25G3
SS-22F25G9
SS-22F32G3
SS-22J01G0
SS-22J01G9
SS-23E01G3
SS-23E01G7
SS-23E01AT7
SS-23H02G9
SS-23H07G7
SS-24F01G7
SS-24F01AT7
SS-24H04AT9
SS-42F01G7
SS-42H04G7
SK-22F01G4
SK-22F01G9
SK-23E01G7
SK-24F01G9



R13-23BB
R13-66AB
R13-66RED
R13-66BLACK
R13-130AB
TA101A1

switch 2p SPST ON-OFF 13x34mm 1.5A/250V
switch 2p SPST ON-OFF 13x18mm 6A/250V white
switch 2p SPST ON-OFF 13x19mm 3A/250Vac 6A/125Vac
switch 3p SPDT ON-ON 13x19mm 3A/250Vac 6A/125Vac
switch 2p SPST ON-OFF 25x19mm 6A/250V
switch 2p SPST ON-OFF 9x6mm 3A/250V

ROCKER SWITCH 2P2T

switch 2p 2P2T ON-OFF 22x19.2mm 6A/250V

RE-12S-A1BA-1

rocker switch 2p SPST ON/OFF 21x15mm 0.1-12A/250Vac

SCHURTER 1301.9206

switch 1pol RSS ON-OFF 15x21mm 6A/250V black

RS02
RS04
RS06
RS08
RS10
ERD116CS
PT65103
ED1112S-20

DIP switch 2p
DIP switch 4p
DIP switch 6p
DIP switch 8p
DIP switch 10p
HEX switch flat
HEX switch flat
rotary type encoder 20 detents

Tact Switches

TS-061 (TS-1)
TS-062 (TS-2)
TS-06E (TS-3)
TS-06C
TS-064 (TS-4)
TS-06D (TS-7G)

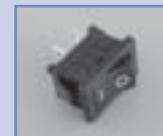
Tact switch 6x6 horizontal 4.4 mm
Tact switch 6x6 horizontal 5.1 mm
Tact switch 6x6 horizontal 7.0 mm
Tact switch 6x6 horizontal 8.0 mm
Tact switch 6x6 horizontal 9.5 mm
Tact switch 6x6 horizontal 13 mm

TS-1201

Tact switch 12x12 horizontal

1-9	10-99	100+	500+
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0.130	0.098	0.083	0.071
0.134	0.101	0.085	0.074
0.154	0.116	0.098	0.084
0.141	0.106	0.090	0.077
0.160	0.120	0.101	0.087
0.147	0.110	0.093	0.080
0.135	0.102	0.086	0.074
0.139	0.104	0.088	0.076
0.131	0.099	0.084	0.072
0.117	0.088	0.074	0.064
0.126	0.095	0.080	0.069
0.227	0.195	0.173	0.149
0.229	0.196	0.175	0.150
0.265	0.227	0.202	0.174
0.243	0.208	0.185	0.159
0.284	0.243	0.217	0.186
0.304	0.260	0.231	0.199
0.304	0.260	0.231	0.199
0.284	0.243	0.217	0.186
0.284	0.243	0.217	0.186
0.139	0.104	0.088	0.076
0.141	0.106	0.090	0.077
0.275	0.206	0.174	0.150
0.306	0.229	0.194	0.167



R13-23xx

R13-66xx

TA101A1

RSxx

1-9	10-99	100-999	1000+
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0.048	0.036	0.031	0.024
0.048	0.036	0.031	0.024
0.043	0.032	0.028	0.022
0.070	0.053	0.046	0.035
0.048	0.036	0.031	0.024
0.078	0.058	0.051	0.039



TS-061(TS-1)

TS-062(TS-2)

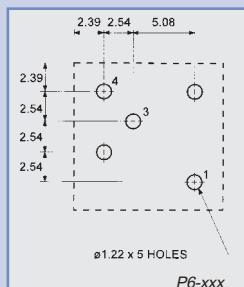
TS-06E(TS-3)

TS-064(TS-4)

TS-06D(TS-7G)

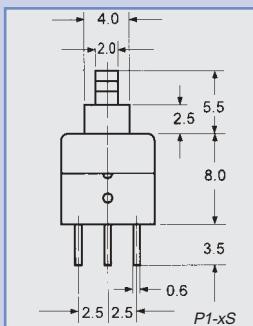
Tact Switches

TV-06B	Tact switch 6x6 vertical 5.85 mm	0.084	0.068	0.051	0.047
TV-06C	Tact switch 6x6 vertical 6.85 mm	0.084	0.068	0.051	0.047
TV-06D	Tact switch 6x6 vertical 8.35 mm	0.084	0.068	0.051	0.047
TSR-1	Tact switch 3.5x6 horizontal 4.3 mm	0.092	0.074	0.056	0.051
TMR-1	Tact switch 3.5x6 horizontal 4.3 mm SMD	0.105	0.085	0.064	0.058
P6-1Y0	push button key sw. yellow SPDT 12.4mm	0.442	0.396	0.382	0.354
P6-1L0	push button key sw. blue SPDT 12.4mm	0.442	0.396	0.382	0.354
P6-1R1	push button key sw. red SPST 12.4mm	0.442	0.396	0.382	0.354
P6-1R0	push button key sw. red SPDT 12.4mm	0.442	0.396	0.382	0.354
P6-1E0	push button key sw. green SPDT 12.4mm	0.442	0.396	0.382	0.354
P6-1B0	push button key sw. black SPDT 12.4mm	0.442	0.396	0.382	0.354
P6-1W0	push button key sw. white SPDT 12.4mm	0.442	0.396	0.382	0.354



P6-xx

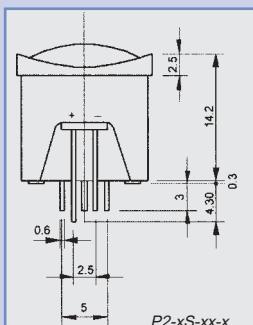
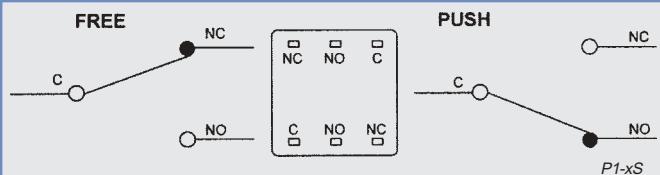
P1-0S	push switch non lock 8x8, 2 contacts	0.303	0.271	0.261	0.242
P1-1S	push switch lock 8x8, 2 contacts	0.317	0.284	0.274	0.254
P1-XX-1B	top button sq. 7x7x8mm black	0.055	0.049	0.048	0.044
P1-XX-1E	top button sq. 7x7x8mm green	0.055	0.049	0.048	0.044
P1-XX-1L	top button sq. 7x7x8mm blue	0.055	0.049	0.048	0.044
P1-XX-1R	top button sq. 7x7x8mm red	0.055	0.049	0.048	0.044
P1-XX-1W	top button sq. 7x7x8mm white	0.055	0.049	0.048	0.044
P1-XX-1Y	top button sq. 7x7x8mm yellow	0.055	0.049	0.048	0.044
P1-XX-3B	top button round Ø 7x8mm black	0.053	0.048	0.046	0.042
P1-XX-3E	top button round Ø 7x8mm green	0.053	0.048	0.046	0.042
P1-XX-3L	top button round Ø 7x8mm blue	0.053	0.048	0.046	0.042



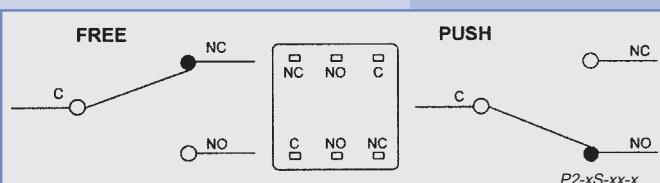
P1=x₁^s

P1-XX-1x

P1-XX-3x



50/5



Tact Switches		1-9	10-99	100-499	500+
P1-XX-3R	top button round Ø 7x8mm red	0.053	0.048	0.046	0.042
P1-XX-3W	top button round Ø 7x8mm white	0.053	0.048	0.046	0.042
P1-XX-3Y	top button round Ø 7x8mm yellow	0.053	0.048	0.046	0.042
P2-0S-RB	push button sw. non lock red	0.544	0.487	0.470	0.435
P2-0S-EB	push button sw. non lock green	0.544	0.487	0.470	0.435
P2-0S-YB	push button sw. non lock yellow	0.544	0.487	0.470	0.435
P2-0S-RB-R	push button sw. non lock red, red LED	0.687	0.615	0.593	0.549
P2-0S-YB-Y	push button sw. non lock yellow, yel. LED	0.687	0.615	0.593	0.549
P2-1S-RB	push button sw. lock red	0.591	0.530	0.511	0.473
P2-1S-EB	push button sw. lock green	0.591	0.530	0.511	0.473
P2-1S-YB	push button sw. lock yellow	0.591	0.530	0.511	0.473
P2-1S-RB-R	push button sw. lock red,red LED	0.739	0.662	0.638	0.591
P2-1S-EB-E	push button sw. lock green.gr. LED	0.739	0.662	0.638	0.591
P2-1S-YB-Y	push button sw. lock yellow, yel. LED	0.739	0.662	0.638	0.591
SM-05S-00P	micro sw. 5A/250Vac 19.5x9.5x6.4mm	0.366	0.328	0.316	0.293
SM-05S-03P	micro sw. 5A/250Vac 19.5x9.5x6.4mm, with lever 22.7mm	0.369	0.330	0.318	0.295
SM-05S-05B	micro sw. 5A/250Vac 19.5x9.5x6.4mm, with roller 4.8mm	0.475	0.425	0.410	0.380
SM-05S-09P	micro sw. 5A/250Vac 19.5x9.5x6.4mm, with lever 52.9mm	0.455	0.408	0.393	0.364
VM-05S-00D0	micro sw. 5A/250Vac 27.8x15.9x10.3mm	0.650	0.582	0.562	0.520
VM-05S-02D0	micro sw. 5A/250Vac 27.8x15.9x10.3mm, with lever 27mm	0.660	0.591	0.570	0.528
VMN-10S-00D0	micro sw. 10A/250Vac 27.8x15.9x10.3mm	0.648	0.581	0.560	0.519
VMN-10S-02D0	micro sw. 10A/250Vac with lever 27mm	0.684	0.613	0.591	0.547
VMN-10S-06D0	micro sw. 10A/250Vac with roller 4.75mm	0.767	0.688	0.663	0.614
VMN-03S-03D0	micro sw. 3A/250Vac 27.8x15.9x10.3mm, with lever 51.1mm	0.681	0.610	0.589	0.545
DF-P1L-0P	micro sw. 0.1A/30V DC 12.7x6.65x5.8mm	0.175	0.156	0.151	0.140
DF-03S-0P	micro sw. 3A/125V DC 12.7x6.65x5.8mm	0.223	0.200	0.193	0.178
DM-03S-1P	micro sw. 3A/125V DC 12.7x6.5x5.8mm with lever 14mm	0.377	0.337	0.325	0.301
DM-03S-2P	micro sw. 3A/125V DC 12.7x6.5x5.8mm simulated roller 15.6mm	0.377	0.337	0.325	0.301



SM-05S-03P



VMN-xxS-00D0



VMN-xxS-02D0



TF-0284

TF0284	keypad	1-4	5-24	25-99	100+
AD16LMT1-1abCR	Soldering, momentary 1NO+1NC 28VAC/DC 40mA RED rectangular	5.542	5.073	4.697	
AD16LMT1-1abCG	Soldering, momentary 1NO+1NC 28VAC/DC 40mA GREEN rectangular	5.542	5.073	4.697	
AD16LMT1-1abCY	Soldering, momentary 1NO+1NC 28VAC/DC 40mA YELLOW rectangular	5.542	5.073	4.697	
AD16LMS1-1abCR	Soldering, momentary 1NO+1NC 28VAC/DC 40mA RED square	5.542	5.073	4.697	
AD16LMS1-1abCG	Soldering, momentary 1NO+1NC 28VAC/DC 40mA GREEN square	5.542	5.073	4.697	
AD16LMS1-1abCY	Soldering, momentary 1NO+1NC 28VAC/DC 40mA YELLOW square	5.542	5.073	4.697	
AD16LMR1-1abCR	Soldering, momentary 1NO+1NC 28VAC/DC 40mA RED round	5.542	5.073	4.697	
AD16LMR1-1abCG	Soldering, momentary 1NO+1NC 28VAC/DC 40mA GREEN round	5.542	5.073	4.697	
AD16LMR1-1abCY	Soldering, momentary 1NO+1NC 28VAC/DC 40mA YELLOW round	5.542	5.073	4.697	
AD16LAT1-1abCR	Soldering, alternate 1NO+1NC 28VAC/DC 40mA RED rectangular	6.071	5.556	5.145	
AD16LAT1-1abCG	Soldering, alternate 1NO+1NC 28VAC/DC 40mA GREEN rectangular	6.071	5.556	5.145	
AD16LAT1-1abCY	Soldering, alternate 1NO+1NC 28VAC/DC 40mA YELLOW rectangular	6.071	5.556	5.145	
AD16LAS1-1abCR	Soldering, alternate 1NO+1NC 28VAC/DC 40mA RED square	6.071	5.556	5.145	
AD16LAS1-1abCG	Soldering, alternate 1NO+1NC 28VAC/DC 40mA GREEN square	6.071	5.556	5.145	
AD16LAS1-1abCY	Soldering, alternate 1NO+1NC 28VAC/DC 40mA YELLOW square	6.071	5.556	5.145	
AD16LAR1-1abCR	Soldering, alternate 1NO+1NC 28VAC/DC 40mA RED round	6.071	5.556	5.145	
AD16LAR1-1abCG	Soldering, alternate 1NO+1NC 28VAC/DC 40mA GREEN round	6.071	5.556	5.145	
AD16LAR1-1abCY	Soldering, alternate 1NO+1NC 28VAC/DC 40mA YELLOW round	6.071	5.556	5.145	
AP16LMT1-1abCR	Socket, momentary 1NO+1NC 28VAC/DC 40mA RED rectangular	5.542	5.073	4.697	
AP16LMT1-1abCG	Socket, momentary 1NO+1NC 28VAC/DC 40mA GREEN rectangular	5.542	5.073	4.697	
AP16LMT1-1abCY	Socket, momentary 1NO+1NC 28VAC/DC 40mA YELLOW rectangular	5.542	5.073	4.697	
AP16LMS1-1abCR	Socket, momentary 1NO+1NC 28VAC/DC 40mA RED square	5.546	5.076	4.700	
AP16LMS1-1abCG	Socket, momentary 1NO+1NC 28VAC/DC 40mA GREEN square	5.546	5.076	4.700	
AP16LMS1-1abCY	Socket, momentary 1NO+1NC 28VAC/DC 40mA YELLOW square	5.546	5.076	4.700	
AP16LMR1-1abCR	Socket, momentary 1NO+1NC 28VAC/DC 40mA RED round	5.542	5.073	4.697	
AP16LMR1-1abCG	Socket, momentary 1NO+1NC 28VAC/DC 40mA GREEN round	5.542	5.073	4.697	
AP16LMR1-1abCY	Socket, momentary 1NO+1NC 28VAC/DC 40mA YELLOW round	5.542	5.073	4.697	
AP16LAT1-1abCR	Socket, alternate 1NO+1NC 28VAC/DC 40mA RED rectangular	6.071	5.556	5.145	
AP16LAT1-1abCG	Socket, alternate 1NO+1NC 28VAC/DC 40mA GREEN rectangular	6.071	5.556	5.145	
AP16LAT1-1abCY	Socket, alternate 1NO+1NC 28VAC/DC 40mA YELLOW rectangular	6.071	5.556	5.145	
AP16LAS1-1abCR	Socket, alternate 1NO+1NC 28VAC/DC 40mA RED square	6.071	5.556	5.145	

Tact Switches

		1-4	5-24	25+
AP16LAS1-1abCG	Socket, alternate 1NO+1NC 28VAC/DC 40mA GREEN square	6.071	5.556	5.145
AP16LAS1-1abCY	Socket, alternate 1NO+1NC 28VAC/DC 40mA YELLOW square	6.071	5.556	5.145
AP16LAR1-1abCR	Socket, alternate 1NO+1NC 28VAC/DC 40mA RED round	6.071	5.556	5.145
AP16LAR1-1abCG	Socket, alternate 1NO+1NC 28VAC/DC 40mA GREEN round	6.071	5.556	5.145
AP16LAR1-1abCY	Socket, alternate 1NO+1NC 28VAC/DC 40mA YELLOW round	6.071	5.556	5.145
AP16LMU1-1abCB	Socket, moment. 1NO+1NC 28VAC/DC 40mA BLUE 29mm round	7.126	6.522	6.039
AP16LMU1-1abCG	Socket, moment. 1NO+1NC 28VAC/DC 40mA GREEN 29mm round	7.126	6.522	6.039
AP16LMU1-1abCR	Socket, moment. 1NO+1NC 28VAC/DC 40mA RED 29mm round	7.126	6.522	6.039
AP16LMU1-1abCW	Socket, moment. 1NO+1NC 28VAC/DC 40mA WHITE 29mm round	7.126	6.522	6.039
AP16LMU1-1abCY	Socket, moment. 1NO+1NC 28VAC/DC 40mA YELLOW 29mm round	7.126	6.522	6.039
AP16LAU1-1abCB	Socket, alternate 1NO+1NC 28VAC/DC 40mA BLUE 29mm round	7.126	6.522	6.039
AP16LAU1-1abCG	Socket, alternate 1NO+1NC 28VAC/DC 40mA GREEN 29mm round	7.126	6.522	6.039
AP16LAU1-1abCR	Socket, alternate 1NO+1NC 28VAC/DC 40mA RED 29mm round	7.126	6.522	6.039
AP16LAU1-1abCW	Socket, alternate 1NO+1NC 28VAC/DC 40mA WHITE 29mm round	7.126	6.522	6.039
AP16LAU1-1abCY	Socket, alternate 1NO+1NC 28VAC/DC 40mA YELLOW 29mm round	7.126	6.522	6.039

**Terminal Blocks**

		1-9	10-99	100-499	500+
WAGO 231-102/026-000	FEM. CONN. 2 POLE; 5 MM; GREY; 250V/16A	1.174	1.078	1.020	0.962
WAGO 231-103/026-000	FEM. CONN. 3 POLE; 5 MM; GREY; 250V/16A	1.610	1.478	1.399	1.320
WAGO 231-104/026-000	FEM. CONN. 4 POLE; 5 MM; GREY; 250V/16A	2.183	2.004	1.896	1.789
WAGO 231-105/026-000	FEM. CONN. 5 POLE; 5 MM; GREY; 250V/16A	2.707	2.486	2.352	2.219
WAGO 231-106/026-000	FEM. CONN. 6 POLE; 5 MM; GREY; 250V/16A	3.157	2.899	2.743	2.588
WAGO 231-107/026-000	FEM. CONN. 7 POLE; 5 MM; GREY; 250V/16A	3.744	3.437	3.253	3.068
WAGO 231-108/026-000	FEM. CONN. 8 POLE; 5 MM; GRAY; 250V/16A	4.268	3.919	3.709	3.499
WAGO 231-110/026-000	FEM. CONN. 10 POLE; 5 MM; GREY; 250V/16A	5.222	4.794	4.537	4.280
WAGO 231-132/001-000	HEADER; VERT., 2P; 5 MM; CLOSED END; GREY; 250V/12A	0.387	0.355	0.336	0.317
WAGO 231-133/001-000	HEADER; VERT., 3P; 5 MM; CLOSED END; GREY; 250V/12A	0.550	0.505	0.478	0.451
WAGO 231-134/001-000	HEADER; VERT., 4P; 5 MM; CLOSED END; GREY; 250V/12A	0.760	0.697	0.660	0.623
WAGO 231-135/001-000	HEADER; VERT., 5P; 5 MM; CLOSED END; GREY; 250V/12A	0.926	0.850	0.804	0.759
WAGO 231-136/001-000	HEADER; VERT., 6P; 5 MM; CLOSED END; GREY; 250V/12A	1.080	0.992	0.939	0.885
WAGO 231-137/001-000	HEADER; VERT., 7P; 5 MM; CLOSED END; GREY; 250V/12A	1.312	1.205	1.140	1.076
WAGO 231-138/001-000	HEADER; VERT., 8P; 5 MM; CLOSED END; GREY; 250V/12A	1.492	1.370	1.296	1.223
WAGO 231-140/001-000	HEADER; VERT., 10P; 5 MM; CLOSED END; GREY; 250V/12A	1.851	1.699	1.608	1.517
WAGO 232-212	2 SOLD.PINS/POLE; 12P; 2.5 MM; 250V/6A; GREY	3.895	3.576	3.385	3.193
WAGO 233-301	END PLATE, GREY FOR 233-212	0.062	0.057	0.054	0.051
WAGO 233-512	2 SOLD.PINS/POLE; 12P; 2.5 MM; 250V/6A; ORANGE	3.895	3.576	3.385	3.193
WAGO 233-306	END PLATE, ORANGE FOR 233-212	0.062	0.057	0.054	0.051
WAGO 255-401	16A; 2 SOLD.PINS/POLE; 1P; 5/5.08 MM; GREY; WITH PUSHER	0.249	0.228	0.216	0.204
WAGO 255-740	16A; 2 SOLD.PINS/POLE; 1P; 5/5.08 MM; RED; WITH PUSHER	0.262	0.241	0.228	0.215
WAGO 255-742	16A; 2 SOLD.PINS/POLE; 1P; 5/5.08 MM; DARK-GREY; WITH PUSHER	0.262	0.241	0.228	0.215
WAGO 255-744	16A; 2 SOLD.PINS/POLE; 1P; 5/5.08 MM; BLUE; WITH PUSHER	0.262	0.241	0.228	0.215
WAGO 255-746	16A; 2 SOLD.PINS/POLE; 1P; 5/5.08 MM; ORANGE; WITH PUSHER	0.249	0.228	0.216	0.204
WAGO 255-747	16A; 2 SOLD.PINS/POLE; 1P; 5/5.08 MM; GREEN; WITH PUSHER	0.262	0.241	0.228	0.215
WAGO 255-100	END PLATE, GRAY, FOR 255-SERIES	0.069	0.063	0.060	0.057
WAGO 255-500	END PLATE, RED, FOR 255-SERIES	0.069	0.063	0.060	0.057
WAGO 255-200	END PLATE, DARK-GRAY, FOR 255-SERIES	0.069	0.063	0.060	0.057
WAGO 255-400	END PLATE, BLUE, FOR 255-SERIES	0.069	0.063	0.060	0.057
WAGO 255-600	END PLATE, ORANGE, FOR 255-SERIES	0.069	0.063	0.060	0.057
WAGO 255-700	END PLATE, GREEN, FOR 255-SERIES	0.069	0.063	0.060	0.057
WAGO 236-401	16A; 2 SOLD.PINS/POLE; 1P; 5/5.08 MM; GREY; CAGE CLAMP	0.180	0.165	0.156	0.147
WAGO 236-744	16A; 2 SOLD.PINS/POLE; 1P; 5/5.08 MM; BLUE; CAGE CLAMP	0.193	0.178	0.168	0.159
WAGO 236-746	16A; 2 SOLD.PINS/POLE; 1P; 5/5.08 MM; ORANGE; CAGE CLAMP	0.180	0.165	0.156	0.147
WAGO 236-747	16A; 2 SOLD.PINS/POLE; 1P; 5/5.08 MM; LIGHT GREEN; CAGE CLAMP	0.193	0.178	0.168	0.159
WAGO 236-100	END PLATE, GRAY, FOR 236-SERIES	0.069	0.063	0.060	0.057
WAGO 236-400	END PLATE, BLUE, FOR 236-SERIES	0.069	0.063	0.060	0.057
WAGO 236-600	END PLATE, ORANGE, FOR 236-SERIES	0.069	0.063	0.060	0.057
WAGO 236-700	END PLATE, LIGHT GREEN, FOR 236-SERIES	0.069	0.063	0.060	0.057
WAGO 250-105	1 FRONT SOLD. PIN/POLE; 5P; 3.5 MM; 250V/2A	0.829	0.761	0.720	0.679
WAGO 250-107	1 FRONT SOLD. PIN/POLE; 7P; 3.5 MM; 250V/2A	1.147	1.053	0.996	0.940

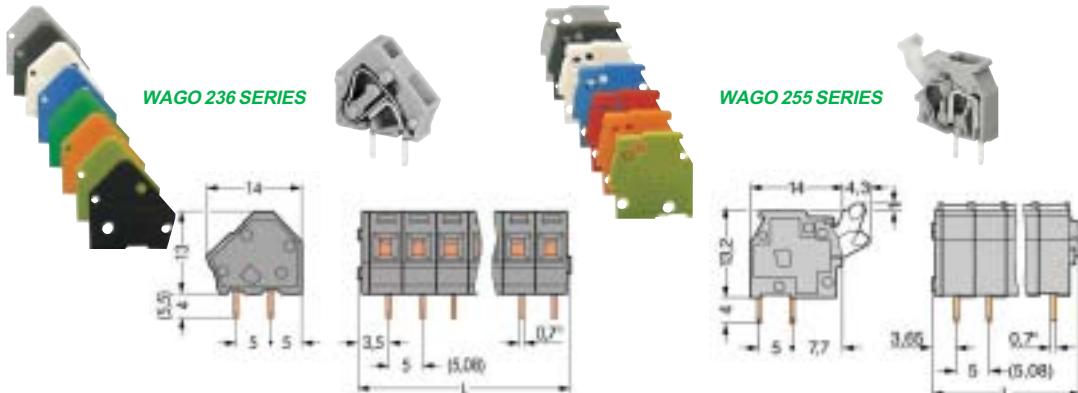


WAGO – Innovative and original decisions in Electrical Interconnections

WAGO's core business is the design and manufacture of innovative terminal blocks and connectors, featuring screwless spring pressure terminations as well as IDC connection systems. The **CAGE CLAMP®** is the trademark of the cage clamp spring pressure connection system.

Modular PCB Terminal Block

Order code PCB	Description	Color	Pin spacing mm	Max. voltage, V	Max current, A	Order code END PLATE
WAGO 236-401	2 pin, CAGE CLAMP®	Gray	5/5.08	250	16	WAGO 236-100
WAGO 236-744	2 pin, CAGE CLAMP®	Blue	5/5.08	250	16	WAGO 236-400
WAGO 236-745	2 pin, CAGE CLAMP®	Green	5/5.08	250	16	WAGO 236-500
WAGO 236-746	2 pin, CAGE CLAMP®	Orange	5/5.08	250	16	WAGO 236-600
WAGO 236-747	2 pin, CAGE CLAMP®	Light green	5/5.08	250	16	WAGO 236-700



Order code PCB	Description	Color	Pin spacing mm	Max. voltage, V	Max. current, A	Order code END PLATE
WAGO 255-401	2 pin, CAGE CLAMP®	Gray	5/5.08	250	16	WAGO 255-100
WAGO 255-740	2 pin, CAGE CLAMP®	Red	5/5.08	250	16	WAGO 255-500
WAGO 255-742	2 pin, CAGE CLAMP®	Dark gray	5/5.08	250	16	WAGO 255-200
WAGO 255-744	2 pin, CAGE CLAMP®	Blue	5/5.08	250	16	WAGO 255-400
WAGO 255-746	2 pin, CAGE CLAMP®	Orange	5/5.08	250	16	WAGO 255-600
WAGO 255-747	2 pin, CAGE CLAMP®	Green	5/5.08	250	16	WAGO 255-700

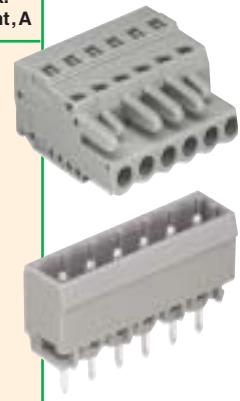


WAGO offers a finger operated terminal blocks as part of WAGO 255 series PCB terminal blocks – WAGO 255-401/333-000

Order code	Description	Color	Number of pins	Pin spacing, mm	Max. voltage, V	Max. current, A
WAGO 233-212	2 pin/pole	Gray	12	2.5	250	6
WAGO 233-301	End Plates for WAGO 233-212	Gray	-	-	-	-
WAGO 233-512	2 pin/pole	Orange	12	2.5	250	6
WAGO 233-306	End Plates for WAGO 233-212	Orange	-	-	-	-
WAGO 250-105	1 pin/pole	Gray	5	3.5	250	2
WAGO 250-107	1 pin/pole	Gray	7	3.5	250	2

Connectors WAGO 231-1xx series

Order code	Description	Color	Number of pins	Pin spacing, mm	Max. voltage, V	Max. current, A
WAGO 231-102 /026-000	Female plug	Gray	2	5	250	16
WAGO 231-104 /026-000	Female plug	Gray	4	5	250	16
WAGO 231-103 /026-000	Female plug	Gray	3	5	250	16
WAGO 231-105 /026-000	Female plug	Gray	5	5	250	16
WAGO 231-106 /026-000	Female plug	Gray	6	5	250	16
WAGO 231-107 /026-000	Female plug	Gray	7	5	250	16
WAGO 231-108 /026-000	Female plug	Gray	8	5	250	16
WAGO 231-110 /026-000	Female plug	Gray	10	5	250	16
WAGO 231-132 /001-000	Header	Gray	2	5	250	12
WAGO 231-133 /001-000	Header	Gray	3	5	250	12
WAGO 231-134 /001-000	Header	Gray	4	5	250	12
WAGO 231-135 /001-000	Header	Gray	5	5	250	12
WAGO 231-136 /001-000	Header	Gray	6	5	250	12
WAGO 231-137 /001-000	Header	Gray	7	5	250	12
WAGO 231-138 /001-000	Header	Gray	8	5	250	12
WAGO 231-140 /001-000	Header	Gray	10	5	250	12



WAGO I/O System for industrial application

Highly flexible, modular, fieldbus independent, distributed I/O system. It makes cost and space saving design of fieldbus nodes possible due to the free combination of digital, analogue and special function I/O modules with 1, 2, 4, or 8 channels per module.

WAGO 750-337 CANopen FIELDBUS COUPLER

- ✓ Baud rate – 10 kBaud ... 1 Mbaud;
- ✓ Max. length of bus line - 40 m ... 1000 m;
- ✓ Max. no. of nodes - 110;
- ✓ Configuration – PC or PLC;
- ✓ Voltage supply - DC 24 V (-25% / + 30%);
- ✓ Operating temperature - 0°C ... + 55°C;
- ✓ Compatible with E175199, UL 508;
- ✓ Buscoupler connection – 5 pole male connector, series 231 (MCS) female connector 231-305/010-000 is included.



I/O modules for industrial application

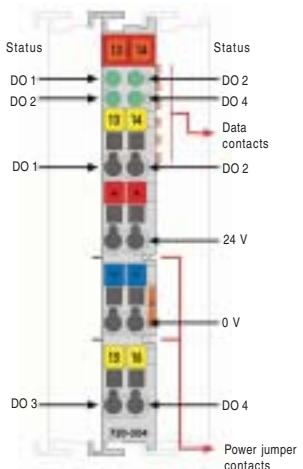
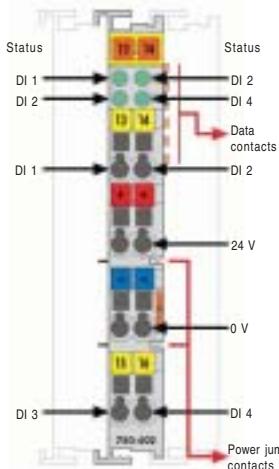
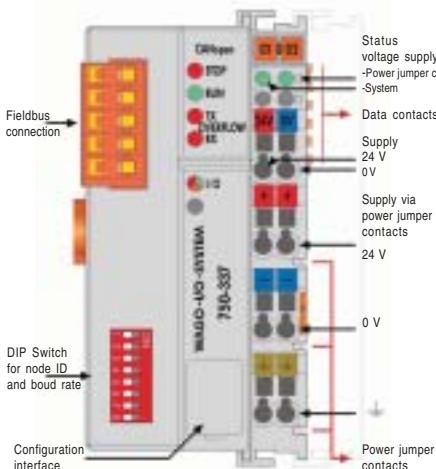
Four channel digital input module for collecting data from peripheral devices like sensors, counters, etc.



WAGO 750-402

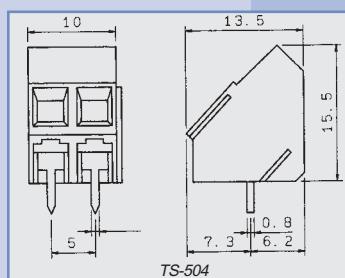
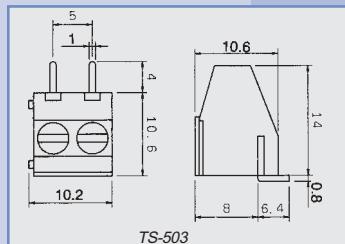
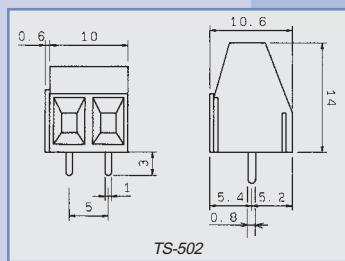
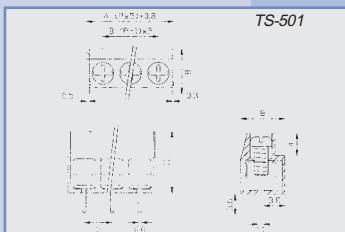
WAGO 750-504

Four channel digital output module for control of inductive and active loads up to 24V/0.5A and maximum switching frequency 1 kHz.



Terminal Blocks

		1-9	10-99	100-499	500-1999	2000+
TS-501 2P	10A 300V AC AWG16-22.5mm	0.125	0.111	0.103	0.094	0.089
TS-501 3P	10A 300V AC AWG16-22.5mm	0.187	0.167	0.154	0.141	0.134
TS-502 2P	10A 300V AC AWG16-22.5mm	0.144	0.129	0.119	0.108	0.103
TS-502 3P	10A 300V AC AWG16-22.5mm	0.215	0.192	0.177	0.161	0.154
TS-503 2P	10A 300V AC AWG16-22.5mm 90°	0.160	0.143	0.132	0.120	0.115
TS-503 3P	10A 300V AC AWG16-22.5mm 90°	0.241	0.215	0.198	0.180	0.172
TS-504 2P	10A 300V AC AWG14-18.5mm 45°	0.156	0.140	0.129	0.117	0.112
TS-504 3P	10A 300V AC AWG14-18.5mm 45°	0.235	0.210	0.193	0.176	0.168
TS-505 2P	10A 300V AC AWG14-18.5mm 90°	0.156	0.139	0.128	0.117	0.111
TS-505 3P	10A 300V AC AWG14-18.5mm 90°	0.233	0.208	0.192	0.175	0.167

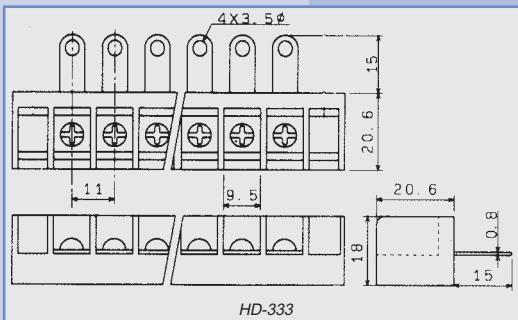
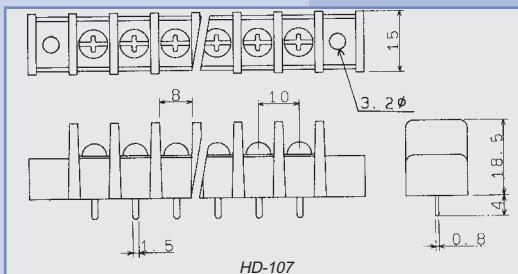


		1-49	50-99	100+	500+
HA-522 2P	10A 300V AC AWG16-24.5mm	0.191	0.166	0.155	0.147
HA-522 3P	10A 300V AC AWG16-24.5mm	0.287	0.250	0.232	0.221
HA-522 4P	10A 300V AC AWG16-24.5mm	0.359	0.330	0.312	0.295
HA-522 8P	10A 300V AC AWG16-24.5mm	0.718	0.659	0.624	0.588
HB-953 6PH	15A 300V AC AWG14-22.9.5mm	0.945	0.868	0.821	0.775
HD-107 2P	15A 300V AC AWG14-18 STR	0.282	0.259	0.245	0.231
HD-107 2PH	15A 300V AC AWG14-18 STR	0.302	0.277	0.263	0.248
HD-107 3P	15A 300V AC AWG14-18 STR	0.434	0.398	0.377	0.355
HD-107 3PH	15A 300V AC AWG14-18 STR	0.441	0.405	0.384	0.362
HD-107 4P	15A 300V AC AWG14-18 STR	0.561	0.515	0.487	0.460
HD-107 4PH	15A 300V AC AWG14-18 STR	0.578	0.531	0.502	0.474
HD-107 5P	15A 300V AC AWG14-18 STR	0.699	0.642	0.608	0.573
HD-107 5PH	15A 300V AC AWG14-18 STR	0.720	0.661	0.626	0.590

Terminal Blocks

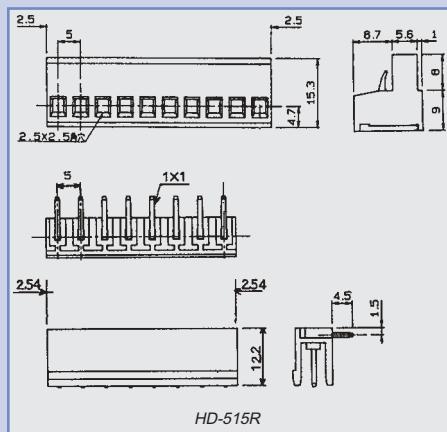
HD-303 3PH	20A 300V AC AWG12-18 11mm
HD-323 6PH	20A 300V AC AWG12-18 11mm
HD-333 6PH	20A 300V AC AWG12-18 11mm
HD-301 4P	20A 300V AC AWG12-18 11mm
HD-331 2P	20A 300V AC AWG12-18 11mm
HD-331 3P	20A 300V AC AWG12-18 11mm
HD-331 4P	20A 300V AC AWG12-18 11mm
HD-351 2P	10A 300V AC AWG24-18 3.5mm
HD-351 3P	10A 300V AC AWG24-18 3.5mm
HD-511 2P	10A 300V AC AWG14-18 5mm
HD-511 3P	10A 300V AC AWG14-18 5mm
HD-512 2P	10A 300V AC AWG14-18 5mm
HD-512 3P	10A 300V AC AWG14-18 5mm

1-49	50-99	100+	500+
0.524	0.481	0.455	0.429
1.229	1.128	1.068	1.007
1.118	1.026	0.971	0.916
0.706	0.648	0.614	0.579
0.352	0.324	0.306	0.289
0.530	0.487	0.461	0.435
0.708	0.650	0.615	0.581
0.159	0.146	0.138	0.130
0.239	0.219	0.207	0.196
0.215	0.187	0.174	0.166
0.323	0.281	0.261	0.248
0.214	0.186	0.172	0.164
0.321	0.279	0.259	0.247



HD-515R 2P	10A 300V AC AWG12-16 5mm 90°
HD-515R 3P	10A 300V AC AWG12-16 5mm 90°
HD-515R 4P	10A 300V AC AWG12-16 5mm 90°
HD-515R 5P	10A 300V AC AWG12-16 5mm 90°
HD-515R 6P	10A 300V AC AWG12-16 5mm 90°
HD-515R 8P	10A 300V AC AWG12-16 5mm 90°
HD-515V 2P	10A 300V AC AWG12-16 5mm
HD-515V 3P	10A 300V AC AWG12-16 5mm
HD-515V 4P	10A 300V AC AWG12-16 5mm
HD-515V 5P	10A 300V AC AWG12-16 5mm

1-49	50-99	100+	500+
0.359	0.320	0.299	
0.537	0.479	0.448	
0.716	0.639	0.597	
0.895	0.798	0.746	
1.074	0.958	0.895	
1.429	1.275	1.191	
0.358	0.319	0.298	
0.537	0.479	0.448	
0.718	0.640	0.598	
0.894	0.798	0.745	

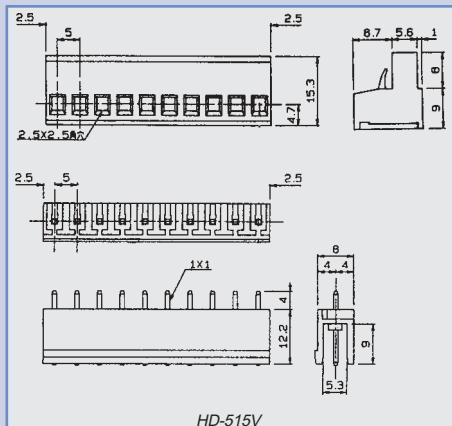


HD-515V

Terminal Blocks

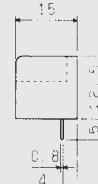
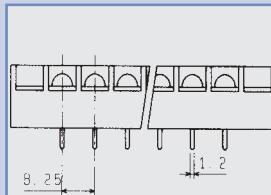
HD-515V 6P	10A 300V AC AWG12-16.5mm
HD-515V 8P	10A 300V AC AWG12-16.5mm
HD-515R8 12P	10A 300V AC AWG12-16.5.08mm 90°
HD-515V8 12P	10A 300V AC AWG12-16.5.08mm
HD-515R8 9P	10A 300V AC AWG12-16.5.08mm 90°
HD-515V8 9P	10A 300V AC AWG12-16.5.08mm

1-49	50-99	100+	500+
1.074	0.958	0.895	
1.429	1.275	1.191	
2.179	1.943	1.816	
2.179	1.943	1.816	
1.634	1.457	1.362	
1.634	1.457	1.362	



HD-831 2P	15A 300V AC AWG14-18.8.25mm
HD-831 3P	15A 300V AC AWG14-18.8.25mm
HD-831 4P	15A 300V AC AWG14-18.8.25mm
HD-831 5P	15A 300V AC AWG14-18.8.25mm
HD-831 20P	15A 300V AC AWG14-18.8.25mm
HD-832 7PH	15A 300V AC AWG14-18.8.25mm

1-49	50-99	100+	500+
0.253	0.232	0.220	0.207
0.378	0.347	0.329	0.310
0.503	0.462	0.437	0.412
0.635	0.583	0.552	0.521
2.415	2.334	2.047	
0.929	0.897	0.787	



K13	15A 300V AC AWG14-22.6.3/10mm
K14	15A 300V AC AWG14-22.5/7mm
K15	15A 300V AC AWG14-22.5/7.5mm 90°
230WP-12	Feedthrough insul. terminal block with wire protector
500WP-12	Feedthrough insul. terminal block with wire protector
FTB705 3PH	10A 300V AC AWG18-22.7.62mm
FTB705 4PH	10A 300V AC AWG18-22.7.62mm



1-49	50-99	100+	500+
0.130	0.116	0.103	0.096
0.130	0.116	0.103	0.096
0.112	0.100	0.089	0.083
1.277	1.139	1.064	
1.392	1.242	1.160	
0.370	0.340	0.322	0.304
0.512	0.470	0.445	0.420

DG350-3.5 2P	10A 300V AC AWG24-18.3.5mm
DG350-3.5 3P	10A 300V AC AWG24-18.3.5mm
DG306-5.0 2P	10A 300V AC AWG22-14.5mm blue
DG306-5.0 3P	10A 300V AC AWG22-14.5mm blue
DG128-5.0 2P	10A 300V AC AWG24-12.5mm green
DG128-5.0 3P	10A 300V AC AWG24-12.5mm green

1-9	10-99	100-499	500-1999	2000+
0.092	0.070	0.067	0.063	0.056
0.138	0.105	0.101	0.095	0.084
0.094	0.072	0.069	0.065	0.058
0.142	0.108	0.104	0.097	0.087
0.152	0.116	0.112	0.104	0.093
0.228	0.173	0.168	0.156	0.140

DG500-5.0 2P	10A 300V AC AWG24-12.5mm; use with DG500H
DG500-5.0 3P	10A 300V AC AWG24-12.5mm; use with DG500H
DG500H-5.0 2P	10A 300V AC AWG24-12.5mm double height
DG500H-5.0 3P	10A 300V AC AWG24-12.5mm double height

1-4	5-24	25-99	100+	500+
0.149	0.113	0.110	0.102	0.092
0.224	0.171	0.165	0.154	0.138
0.174	0.132	0.128	0.119	0.107
0.261	0.199	0.192	0.179	0.160

DG332J-5.0 2P	10A 300V AC pin header for DG332K black
DG332J-5.0 3P	10A 300V AC pin header for DG332K black
DG332K-5.0 2P	10A 300V AC AWG28-16.5mm blue
DG332K-5.0 3P	10A 300V AC AWG28-16.5mm blue

1-4	5-24	25-99	100+	500+
0.042	0.031	0.030	0.028	0.025
0.062	0.046	0.045	0.042	0.037
0.091	0.069	0.067	0.062	0.056
0.134	0.102	0.099	0.092	0.082



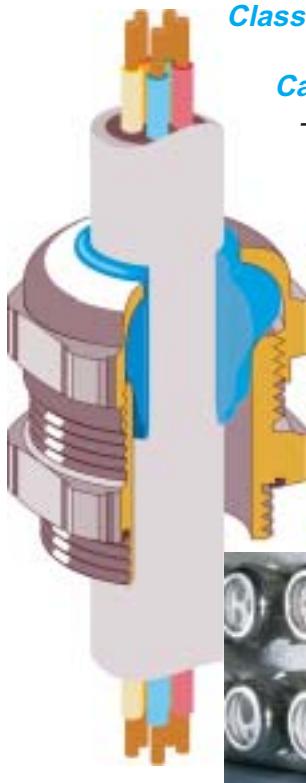
Competence in cable management

High quality cable glands and trunking systems



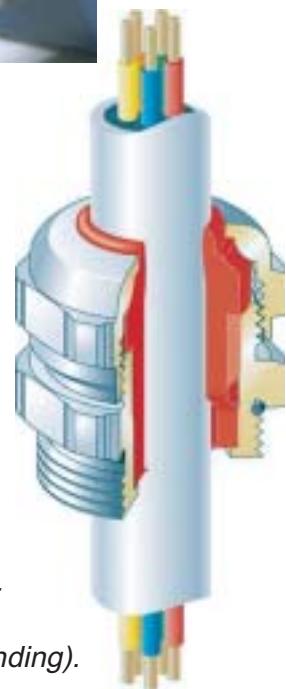
The company PFLITSCH offers high quality cable glands for equipment suitable for use in high risk environment like dust, moisture, chemical active areas and high pressure.

The **blueglobe®** series of cable glands is compatible with **IP68** and **EN50262 Class B** standards.



Cable glands series **blueglobe®**

- Body: Nickel plated brass, stainless steel or Polyamide (plastic), RoHS and WEEE compatible;
- Sealing: TPE, blue, operating temperature -40 - 130°C, UL94HB, RoHS and WEEE compatible, type of protection - IP68, up to 15 bar and EN 50262 Class B;
- Removable inlet for larger cable diameters;
- Patented „**globe**“ shape of the sealing for perfect protection.



Cable glands series **UNI Dicht**

Modular system with great number of individually combinable components, it is possible to choose most suitable configuration for your application.

- Body: Brass, Al, steel, Zinc or plastic (Polyamide, PVDF);
- Sealing: PVC, TPE, TPE-V, silicone;
- Type of protection: IP65, IP68;
- A diversity of sealing types for different cables - flat, cylindrical, sealings for multiple cables and ect.
- Optional cable protections for mechanical stress (strain, bending).

Cable glands series UNI Dicht Ex

UNI Dicht Ex cable glands can be used in high-risk areas and can be installed safely into explosion-proof units with protection types "e".

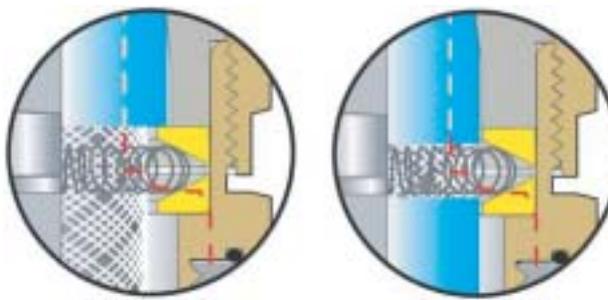
- Body: Brass, steel or plastic (PVDF);
- ATEX 95 certificated explosion-protected devices;
- Type of protection: IP65, IP68;
- Single and multiple cable glands;
- Special glands for shielded cables for improved EMC.



Cable glands series UNI Dicht EMC

Cable glands for shielded cables with improved EMC protection.

- Body: Nickel plated brass;
- Sealing: TPE-V;
- Steel spring ring **UNI IRIS** for easy cable shield connection;
- Type of protection: IP68, up to 10 bars;
- Options for Continuous or Stripped outer sheath or braid.



Cable trunking

PFLITSCH offers wide variety of metal cable trunks, components and accessories, necessary for building complete cable system and also instruments necessary for building it.



Competence in cable management

High quality connectors



Connectors HAN® series - High reliability industrial connectors for high current and voltage applications and rough environment. These HARTING products take place in automotive, industrial and many other applications.

Industrial connectors for up to 16A Han® E, Han® ES/ESS/EE, Han® A

Han® E – 16A/500V

Han® ES – 16A/500V Han® ESS – 16A/500V

Han® EE – 16A/500V

Han® A – 10A/230V

Han® A – 16A/250V



Modular connectors Han-Modular®

Modular connection system designed for combining different transmission media and different contact types in a single connector.



Han-Com®, Han-Brid®, Han D®AV/Han E®AV High voltage connectors Han® HvE/HvES



Interface connectors

High quality connectors for standard interfaces (D-Sub, IDC) with quality of HARTING products.



High current connectors - Han® K 3/0 K 3/2, Han® HC Modular, Han® HsB

Han® HC Modular - 350A/2000V, 650A/4000V

Han® K 3/0 – 200A/1150V

Han® K 3/2 – 200A/1150V

Han® Q - 16-40A/400-690V

Han® HsB – 35A/400V



Circular Connectors R 15, Han® R 23



HARTING offers different types of housings for all products.



Connectors DIN 41 612 series

Signal and power connectors for communication equipment, control and measurement systems and other modular electronic equipments.



Terminal Blocks

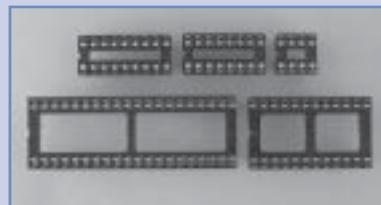
		1-4	5-24	25-99	100+	500+
DG15V-3.5 2P	8A 300V AC AWG28-16 3. 5mm	0.381	0.338	0.327	0.305	0.272
DG15V-3.5 3P	8A 300V AC AWG28-16 3. 5mm	0.572	0.507	0.490	0.458	0.409
DG15V-3.5 4P	8A 300V AC AWG28-16 3. 5mm	0.763	0.676	0.654	0.610	0.545
DG15V-3.5 5P	8A 300V AC AWG28-16 3. 5mm	0.955	0.846	0.819	0.764	0.682
DG15V-3.5 6P	8A 300V AC AWG28-16 3. 5mm	1.144	1.014	0.981	0.916	0.817
DG15R-3.5 2P	8A 300V AC AWG28-16 3. 5mm	0.381	0.338	0.327	0.305	0.272
DG15R-3.5 3P	8A 300V AC AWG28-16 3. 5mm	0.572	0.507	0.490	0.458	0.409
DG15R-3.5 4P	8A 300V AC AWG28-16 3. 5mm	0.763	0.676	0.654	0.610	0.545
DG15R-3.5 5P	8A 300V AC AWG28-16 3. 5mm	0.955	0.846	0.819	0.764	0.682
DG15R-3.5 6P	8A 300V AC AWG28-16 3. 5mm	1.144	1.014	0.981	0.916	0.817

HAN Connectors

		1+
HAN3A 09200032711 F	HAN 3A,f.,230/400V,10A,screw	5.798
HAN4A 09200042711 F	HAN 4A,f.,230/400V,10A,screw	6.182
HAN10E 09330102601 M	HAN 10E m.,400V,16A,screw,1-10	7.184
HAN10E 09330102701 F	HAN 10E f.,400V,16A,screw,1-10	7.372
HAN16E 09330162601 M	HAN 16E m.,400V,16A,screw,1-16	8.771
HAN16E 09330162701 F	HAN 16E f.,400V,16A,screw,1-16	9.266
HAN24E 09330242701 F	HAN 24E f.,400V,16A,screw,1-24/48E	13.573
HAN24E 09330242601 M	HAN 24E m.,400V,16A,screw,1-24/48E	12.920
HANB 09300241731 H	HAN B24 hood,cable/cable,low,Pg 16	17.969
HAN 09000005101 CC	HAN cable clamp,style B,Pg11	4.511
HANB 09300241421 H	HAN B24 hood,low,2 levers,Pg29	11.314
HANB 09300241441 H	HAN B24 hood,low,1 lever,Pg29	15.751
HANB 09300240301 H	HAN B housing bulkhead,low,2 lever	12.479
HANB 09300240520 H	HAN B hood,side-entry,high,2 lever,Pg21	16.518
HANB 09300240521 H	HAN B hood,side-entry,high,2 lever,Pg29	16.518
HANB 09300240230 H	HAN B24 housing,2 levers,high,Pg1x21	21.266
HANB 09300241220 H	HAN B24 housing,2 levers,low,Pg1x21	17.418
HANB 09300245425 PC	HAN B protection cover,low	12.229
HANB 09300240271 H	HAN B24 housing surface,2 lever,Pg2x29	23.165
HAN48B 09300480301 H	HAN 48B housing bulkhead,1 lever	48.991
HAN48B 09300480540 H	HAN 48B hood,side-entry,1 lever,Pg29	37.421
HAN16A 09200162812 F	HAN 16A f.,250V,16A,screw,1-16/32A	15.473
HAN32A 09200162813 F	HAN 32A f.,250V,16A,screw,17-32/32A	15.473
HAN32A 09200320421 H	HAN 32A hood,high,2 levers,Pg29	16.376
HAN3A 09200032611 M	HAN 3A,m.,230/400V,10A,screw	5.299
HAN3A 09200030801 H	HAN 3A housing bulkhead,metal	5.798
HAN3A 09200031750 HCC	HAN 3A hood,cable/cable,metal,Pg11	5.587
HAN3A 09200031440 H	HAN 3A hood,top-entry,metal,Pg11	3.494
HAN3A 09200031640 H	HAN 3A hood,side-entry,metal,Pg11	4.089
HAN3A 09200030301 H	HAN 3A housing bulkhead,1lever	3.936
HAN4A 09200042611 M	HAN 4A,m.,230/400V,10A,screw	5.798
HAN 09000005103 CC	HAN cable clamp,style B,PG16	4.369
HAN 09000005106 CC	HAN cable clamp,style A,PG29	7.372
HAN 09300009901 CP	HAN standard coding pins	0.239
HAN10A 09200102612 M	HAN 10A m.,250V,16A,screw,1-10	8.677
HAN10A 09200102812 F	HAN 10A f.,250V,16A,screw,1-10	10.079
HAN10A 09200101541 H	HAN 10A hood,side-entry,low,1lever,Pg16	8.389
HAN10A 09200101440 H	HAN 10A hood,top-entry,low,1lever,Pg13.5	9.580
HAN10A 09200105423 PC	HAN 10A protection cover,low	15.569
HAN16A 09200162612 M	HAN 16A m.,250V,16A,screw,1-16/32A	12.479
HAN16A 09200165423 PC	HAN 16A protection cover,low	17.163
HAN16A 09200161541 H	HAN 16A hood,side-entry,low,1lever,Pg16	8.485
HAN32A 09200162613 M	HAN 32A m.,250V,16A,screw,17-32/32A	12.479
HAN32A 09200320301 H	HAN 32A housing bulkhead,low	14.475
HANB 09300240307 H	HAN B24 housing bulkhead,low,1lever	14.360
HAN16A 09200160301 H	HAN 16A housing bulkhead,low,1lever	11.576
HAN6E 09330062601 M	HAN 6E m.,400V,16A,screw,protection	5.631
HAN6E 09330062701 F	HAN 6E f.,400V,16A,screw,protection	5.802
HAN48E 09330242611 M	HAN 48E m.,400V,16A,screw,25-48/48E	12.920
HAN48E 09330242711 F	HAN 48E f.,400V,16A,screw,25-48/48E	13.573
HAN6B 09300061540 H	HAN 6B hood,side-entry,low,1lever,Pg13.5	6.775
HAN6B 09300061440 H	HAN 6B hood,top-entry,low,1lever,Pg13.5	9.096
HAN6B 09300065423 PC	HAN 6B protection cover,low	10.367
HAN6B 09300060301 H	HAN 6B housing bulkhead,low	8.121
HAN6B 09300065425 PC	HAN 6B protection cover,low	7.238
HAN16A 09200161441 H	HAN 16A hood,low,1lever,Pg16	10.290
HAN42DD 09160423001 M	HAN 42DD m.,250V,10A,crimp,base	11.502
HAN 09150006101 CCM	HAN m.,crimp contact,1.5sq.mm,AWG16	0.423
HAN42DD 09160423101 F	HAN 42DD f.,250V,10A,crimp,base	11.604
HAN 09150006201 CCF	HAN f.,crimp contact,1.5sq.mm,AWG16	0.426
HAN 09300100305 H	HAN B10 housing bulkhead,low,1lever	12.920
HAN 09000005086 CP	HAN cable protec.,met.,IP68,Pg16,6-9.5mm	5.427
HAN 09000005024 CS	HAN normal seal,Pg29,28-30mm	0.557
HAN 09000005022CS	HAN normal seal,Pg16,14-16mm	0.269
HAN 09000005117 CS	HAN cable sealing metal IP65,Pg29	1.562
HANB 09300100543 H	HAN B10 hood,side entry,high,1lever,Pg29	17.525
HANB 09300160541 H	HAN B16 hood,side entry,high,1lever,Pg29	18.191

Low cost sockets 2.54 mm

		<pack	1-4packs	5-9packs	10+ packs
LC6	6 pin 0.3" 7.62 mm pack=80	0.051	0.037	0.0331	0.0318
LC8	8 pin 0.3" 7.62 mm pack=60	0.019	0.013	0.012	0.0116
LC14	14 pin 0.3" 7.62 mm pack=34	0.026	0.019	0.0171	0.0165
LC16	16 pin 0.3" 7.62 mm pack=30	0.030	0.022	0.0194	0.0187
LC18	18 pin 0.3" 7.62 mm pack=26	0.034	0.025	0.0220	0.0211
LC20	20 pin 0.3" 7.62 mm pack=24	0.038	0.027	0.0243	0.0234
LC22	22 pin 0.3" 7.62 mm pack=22	0.041	0.030	0.0268	0.0257
LC24-03	24 pin 0.3" 7.62 mm pack=20	0.046	0.033	0.0297	0.0285
LC24	24 pin 0.6" 15.24 mm pack=20	0.045	0.033	0.0293	0.0281
LC28-03	28 pin 0.3" 15.24 mm pack=17	0.053	0.038	0.0342	0.0329
LC28	28 pin 0.6" 15.24 mm pack=17	0.054	0.039	0.0351	0.0337
LC32	32 pin 0.6" 15.24 mm pack=15	0.064	0.046	0.0415	0.0399
LC40	40 pin 0.6" 15.24 mm pack=12	0.078	0.056	0.0506	0.0486



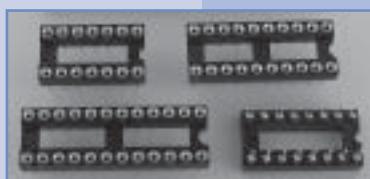
LCxx

Machined Pins Sockets

		1-4	5-24	25-99	100+
M6	6 pin 0.3" 7.62mm	0.129	0.117	0.099	0.092
M8	8 pin 0.3" 7.62 mm	0.131	0.119	0.101	0.094
M14	14 pin 0.3" 7.62 mm	0.228	0.207	0.176	0.163
M16	16 pin 0.3" 7.62 mm	0.262	0.238	0.202	0.187
M18	18 pin 0.3" 7.62 mm	0.295	0.268	0.228	0.211
M20	20 pin 0.3" 7.62 mm	0.328	0.297	0.253	0.234
M20S	20 pin SIL	0.343	0.311	0.265	0.245
M22	22 pin 0.3" 7.62 mm	0.360	0.327	0.278	0.257
M24	24 pin 0.6" 15.24 mm	0.393	0.356	0.303	0.281
M28	28 pin 0.6" 15.24 mm	0.459	0.416	0.354	0.328
M28-3	28 pin 0.3" 7.62 mm	0.458	0.415	0.353	0.327
M40	40 pin 0.6" 15.24 mm	0.654	0.594	0.505	0.467
M40S	40 pin SIL	0.675	0.613	0.521	0.482



M40



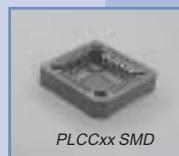
Mxx

PLCC Sockets

		1-4	5-24	25-99	100+
PLCC28	PLCC socket 28 pin	0.324	0.294	0.250	0.231
PLCC32	PLCC socket 32 pin	0.335	0.304	0.259	0.240
PLCC44	PLCC socket 44 pin	0.366	0.332	0.282	0.261
PLCC52	PLCC socket 52 pin	0.385	0.349	0.297	0.275
PLCC68	PLCC socket 68 pin	0.434	0.394	0.335	0.310
PLCC84	PLCC socket 84 pin	0.506	0.459	0.390	0.361



PLCCxx



PLCCxx SMD

PLCC SMD Sockets

		1-4	5-24	25-99	100+
PLCC28 SMD	PLCC socket 28 pin SMD	0.222	0.201	0.171	0.158
PLCC32 SMD	PLCC socket 32 pin SMD	0.210	0.190	0.162	0.150
PLCC44 SMD	PLCC socket 44 pin SMD	0.258	0.234	0.199	0.184
PLCC52 SMD	PLCC socket 52 pin SMD	0.396	0.359	0.305	0.283
PLCC68 SMD	PLCC socket 68 pin SMD	0.409	0.371	0.316	0.292
PLCC84 SMD	PLCC socket 84 pin SMD	0.573	0.520	0.442	0.409

D-SUB Connectors

DB9PM	D-SUB 9 male solder
DB9PF	D-SUB 9 female solder
DB15PM	D-SUB 15 male solder
DB15PF	D-SUB 15 female solder
DB25PM	D-SUB 25 male solder
DB25PF	D-SUB 25 female solder
DB37PM	D-SUB 37 male solder
DB37PF	D-SUB 37 female solder
DB50PM	D-SUB 50 male solder
DB50PF	D-SUB 50 female solder



DB25Px



DB9PF DB9PM



DB15PF DB15PM

DB9BM	D-SUB 9 straight PCB male
DB9BF	D-SUB 9 straight PCB female
DB15BM	D-SUB 15 straight PCB male
DB15BF	D-SUB 15 straight PCB female
DB25BM	D-SUB 25 straight PCB male
DB25BF	D-SUB 25 straight PCB female
DB37BM	D-SUB 37 straight PCB male
DB37BF	D-SUB 37 straight PCB female



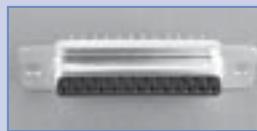
DB9BF DB9BM



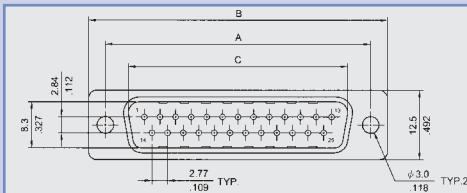
DB15BM



DB15BF

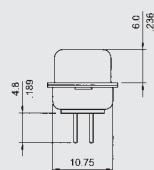
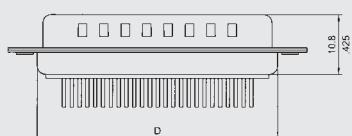


DB25BF

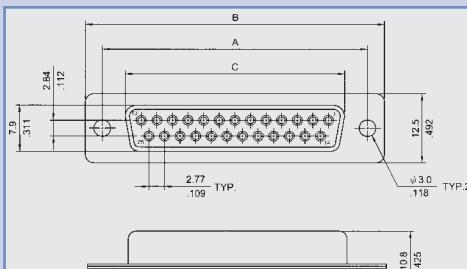


Plug Connector

Circuits	Dimension			
	A	B	C	D
9	25.00(.984)	30.8(1.213)	16.92(.666)	19.2(.756)
15	33.32(1.312)	39.2(1.543)	25.25(.994)	27.7(1.091)
25	47.04(1.852)	53.1(2.091)	38.96(1.534)	41.1(1.618)
37	63.50(2.500)	69.4(2.732)	55.42(2.182)	57.3(2.256)

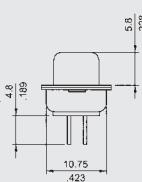


DBxxBM



Receptacle Connector

Circuits	Dimension			
	A	B	C	D
9	25.00(.984)	30.8(1.213)	16.3(.642)	19.2(.756)
15	33.32(1.312)	39.2(1.543)	24.6(.969)	27.7(1.091)
25	47.04(1.852)	53.1(2.091)	38.3(1.508)	41.1(1.618)
37	63.50(2.500)	69.4(2.732)	54.8(2.157)	57.3(2.255)



DBxxBF

D-SUB Connectors

DB9BMR	D-SUB 9 right angle PCB male
DB9BFR	D-SUB 9 right angle PCB female
DB15BMR	D-SUB 15 right angle PCB male
DB15BFR	D-SUB 15 right angle PCB female
DB25BMR	D-SUB 25 right angle PCB male
DB25BFR	D-SUB 25 right angle PCB female
DB37BMR	D-SUB 37 right angle PCB male
DB37BFR	D-SUB 37 right angle PCB female
DB50BMR	D-SUB 50 right angle PCB male
DB50BFR	D-SUB 50 right angle PCB female



DB25BxR



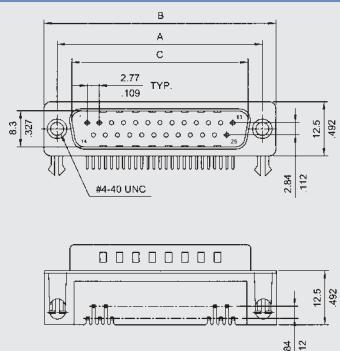
DB9BFR



DB9BMR

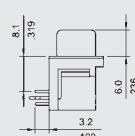


DB15BxR

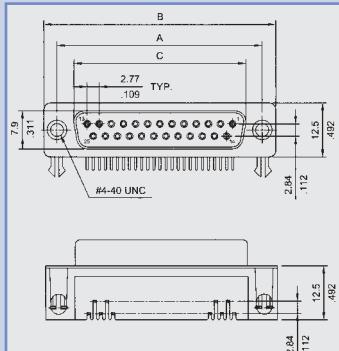


Plug Connector

Circuits	A	B	C
9	25.00(.984)	30.8(1.213)	16.92(.666)
15	33.32(1.312)	39.2(1.543)	25.25(.994)
25	47.04(1.852)	53.1(2.091)	38.96(1.534)
37	63.50(2.500)	69.4(2.732)	55.42(2.182)

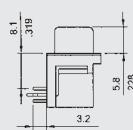


DBxxBMR



Receptacle Connector

Circuits	A	B	C
9	25.00(.984)	30.8(1.213)	16.92(.642)
15	33.32(1.312)	39.2(1.543)	24.8(.989)
25	47.04(1.852)	53.1(2.091)	38.3(1.508)
37	63.50(2.500)	69.4(2.732)	54.8(2.157)



DBxxBFR

DB9SM	D-SUB 9 flat cable male
DB9SF	D-SUB 9 flat cable female
DB15SM	D-SUB 15 flat cable male
DB15SF	D-SUB 15 flat cable female
DB25SM	D-SUB 25 flat cable male
DB25SF	D-SUB 25 flat cable female
DB37SM	D-SUB 37 flat cable male
DB37SF	D-SUB 37 flat cable female



DB9SM



DB9SF



DB15SM

1-9	10-99	100-499	500+
0.444	0.393	0.376	0.342
0.446	0.395	0.377	0.343
0.620	0.548	0.524	0.477
0.623	0.551	0.527	0.479
0.550	0.486	0.465	0.423
0.553	0.489	0.468	0.425
1.453	1.285	1.230	1.118
1.456	1.288	1.232	1.120



DHR15SR

D-SUB Connectors

		1-9	10-99	100-499	500+
DHS15P	D-SUB 15 High Density male solder	0.202	0.172	0.155	
DHS15S	D-SUB 15 High Density female solder	0.201	0.172	0.155	
DHR15PR	D-SUB 15 High Density right angle PCB male	0.502	0.428	0.386	
DHR15SR	D-SUB 15 High Density right angle PCB female	0.329	0.281	0.253	

D-SUB Hoods

		1-9	10-99	100-499	500+
HDB9P	D-SUB 9 hood	0.204	0.174	0.159	0.151
HDB9PS	D-SUB 9 hood SNAP	0.206	0.176	0.160	0.153
HDB9PF	D-SUB 9 hood flat cable	0.205	0.175	0.160	0.152
HDB9PT	D-SUB 9 hood thumb screw	0.328	0.280	0.255	0.243
HDB9MT	D-SUB 9 hood chromate plated,thumb screw	0.445	0.379	0.346	0.330
HDB15P	D-SUB 15 hood	0.199	0.170	0.155	0.148
HDB15PT	D-SUB 9 hood thumb screw	0.348	0.296	0.271	0.258
HDB25P	D-SUB 25 hood	0.227	0.193	0.176	0.168
HDB25PS	D-SUB 25 hood SNAP	0.209	0.178	0.162	0.155
HDB25PT	D-SUB 25 hood thumb screw	0.410	0.350	0.319	0.304
HDB25PF	D-SUB 25 hood flat cable	0.198	0.169	0.154	0.147
HDB25MT	D-SUB 25 hood chromate plated,thumb screw	0.451	0.384	0.351	0.334
HDB37P	D-SUB 37 hood	0.366	0.312	0.285	0.271
HDB37PT	D-SUB 37 hood thumb screw	0.485	0.413	0.378	0.360



HDB9PF



HDB9P



HDB9PT



HDB15P



HDB25P

		1-9	10-99	100-499	500+
GC9/9	Cover D-SUB9/D-SUB9	0.306	0.272	0.242	0.227
GC9/25	Cover D-SUB9/D-SUB25	0.340	0.302	0.269	0.252
GC15/15	Cover D-SUB15/D-SUB15	0.324	0.288	0.257	0.240
GC25/36	Cover D-SUB25/CENTR36	0.520	0.462	0.412	0.385
GC25/25	Cover D-SUB25/D-SUB25	0.364	0.323	0.288	0.270
GC36/36	Cover CENTR36/CENTR36	0.485	0.431	0.384	0.359
GC25/25T	Cover D-SUB25/D-SUB25 with opening	0.426	0.379	0.338	0.315



GC9/25



CENxxSF

		1-9	10-99	100+	
CEN36PM	Centronic 36p male solder	0.954	0.850	0.795	
CEN36SF	Centronic 36p female flat cable	1.182	1.054	0.985	
CEN36BFR	Centronic 36p female angled for PCB	1.171	1.045	0.976	
CEN50PM	Centronic 50p male solder	1.976	1.762	1.647	
CEN50SF	Centronic 50p female flat cable	1.678	1.497	1.399	
CEN50BFR	Centronic 50p female angled for PCB	1.582	1.411	1.318	

DIN41 612 C EURO Connectors HARTING

		1-9	10-99	100+	
DINC32MR	conn.DIN 41612C 32 A-C male angled	1.649	1.412	1.319	
DINC32FS2.9	conn.DIN 41612C 32 A-Cf. solder 2.9mm	1.583	1.355	1.266	
DINC32FS4.5	conn.DIN 41612C 32 A-Cf. solder 4.5mm	1.583	1.355	1.266	

DIN41 612 C EURO Connectors HARTING

		1-9	10-99	100+
DINC64FS2.9	conn.DIN 41612C 64 A-C f. solder 2.9mm	1.414	1.210	1.131
DINC64FS4.5	conn.DIN 41612C 64 A-C f. solder 4.5mm	1.414	1.210	1.131
DINC64FW13	conn.DIN 41612C 64 A-C f. wrap13mm	2.827	2.420	2.262
DINC64MR	conn.DIN 41612C 64 A-C male angled	1.481	1.268	1.185
DINC64MS	conn.DIN 41612C 64 A-C male solder	1.817	1.556	1.454
DINC96FS2.9	conn.DIN 41612C 96 female solder 2.9mm	1.885	1.613	1.508
DINC96FS4.5	conn.DIN 41612C 96 female solder 4.5mm	1.885	1.613	1.508
DINC96FW13	conn.DIN 41612C 96 female wrap13mm	3.635	3.111	2.908
DINC96MR	conn.DIN 41612C 96 male angled	2.120	1.815	1.696
DINR64FR	conn.DIN 41612 R 64 A-C female angled	1.868	1.599	1.495
DINR96FR	conn.DIN 41612 R 96 female angled	2.529	2.165	2.024
DINB32MR	conn.DIN 41612 2B 32 A-B male angled	1.568	1.342	1.254
DINB32FS2.9	conn.DIN 41612 2B 32 A-B f. solder 2.9 mm	2.125	1.819	1.700
DINB32FS4.5	conn.DIN 41612 2B 32 A-B f. solder 4.5 mm	2.052	1.756	1.642
DINB32FW13	conn.DIN 41612 2B 32 A-B f. wrap 13 mm	3.658	3.131	2.927
DINMH31MR	conn.DIN 41612 MH 24+7 male angled	5.979	5.118	4.783
DINMH31FS4.5	conn.DIN 41612 MH 24+7 f. solder 4.5mm	10.491	8.981	8.393

RJ11; RJ45 Connectors

		1-9	10-99	100-499	500+	2000+
TPL4P	Telephone Modular Plug 4p	0.035	0.026	0.023	0.021	0.017
TPL6P	Telephone Modular Plug 6p	0.047	0.035	0.030	0.028	0.023
TPL6P4C	Telephone Modular Plug 6p 4c	0.036	0.026	0.023	0.022	0.018
TPL8P(RJ45)	Modular Plug 8p RJ45	0.089	0.071	0.065	0.060	0.052
TPL8PR	Modular Plug 8p RJ45 round cable	0.099	0.079	0.072	0.067	0.062
TS6P4C-PCB	Telephone PCB mount Jack 6p4c	0.129	0.115	0.105	0.096	
TS6P6C-PCB	Telephone PCB mount Jack 6p6c	0.159	0.141	0.130	0.118	
TS8P8C-PCB	PCB mount Jack 8p RJ45	0.323	0.287	0.263	0.239	
TS4P4C-PCB-S	Telephone PCB mount Jack 4p4c straight	0.167	0.148	0.136	0.123	
TS4P4C-PCB-U	Telephone PCB mount Jack 4p4c upside contact	0.170	0.151	0.138	0.126	
TS6P4C-PCB-UH	Telephone PCB mount Jack 6p4c upside contact	0.257	0.229	0.210	0.191	
TS6P6C-PCB-S	Telephone PCB mount Jack 6p6c straight	0.187	0.166	0.152	0.138	
TS6P6C-PCB-U	Telephone PCB mount Jack 6p6c upside contact	0.255	0.227	0.208	0.189	
TS6P4C-PCB-SX2	Double Telephone PCB mount Jack 6p4c Straight	0.514	0.457	0.419	0.381	
TS8P8C-PCB-E	PCB mount Jack 8p RJ45 Shielded	0.501	0.445	0.408	0.371	
TS8P8C-PCB-S	PCB mount Jack 8p RJ45 Straight	0.310	0.276	0.253	0.230	
TS8P8C-PCB-UH	PCB mount Jack 8p RJ45	0.363	0.323	0.296	0.269	
TS8P8C-PCB-TRAF	10/100 Base-Transformer RJ45 PCB Jack	2.054	1.826	1.674	1.522	

USB; IEEE1394 Connectors

		1-9	10-99	100-499	500+
USB A-PCB-R	USB socket, A-type, horizontal, for PCB	0.162	0.147	0.125	0.116
USB B-PCB-R	USB socket, B-type, horizontal, for PCB	0.223	0.202	0.172	0.159
USB A PCB-M	USB plug, A-type, horizontal, for PCB	0.324	0.294	0.250	0.232
USB A PCB-M SMD	USB plug, A-type, SMD, horizontal, for PCB	0.338	0.306	0.261	0.241
USB 5 MINI SMD	MINI USB 5 SMD socket	0.218	0.198	0.168	0.156
USB 5 MINI PLUG	MINI USB 5 plug connector	0.507	0.451	0.413	0.375
					

USB; IEEE1394 Connectors

MD6R MINI-DIN	MINI-DIN socket 6P PCB 90°
IEEE1394SR	FIREWIRE socket, horizontal, for PCB
IEEE1394SR SMD	FIREWIRE SMD socket, horizontal, for PCB
CCF-M450B	Compact Flash Slimp Type Bottom Mount Connector
CSD-09G	Secure Digital Connector



IEEE1394SR



IEEE1394SR SMD

1-9	10-99	100-499	500+
0.303	0.275	0.234	0.217
0.286	0.259	0.220	0.204
0.286	0.259	0.220	0.204
0.772	0.686	0.629	0.572
0.477	0.424	0.389	0.354



MD6R MINI-DIN

BNC Connectors

		1-9	10-99	100-499	500+
BNCRG58	BNC Connector 50 Ohm , RG58	0.303	0.270	0.241	0.225
BNCRG59	BNC Connector 75 Ohm , RG59	0.307	0.273	0.243	0.227
BNCTERM50	BNC Terminator 50 Ohm	0.613	0.545	0.486	0.454
BNCTERM75	BNC Terminator 75 Ohm	0.619	0.550	0.490	0.458
BNC T	BNC T Connector	0.765	0.680	0.606	0.566
BNC F 90° PCB (VC401)	BNC female 90° PCB mount	1.053	0.936	0.834	0.780
MCX6252B1-3GT30G-50	MCX 90deg PCB jack	3.308	2.941	2.696	2.451
SMA F (VC296)	SMA female chassis	1.429	1.270	1.133	1.059

Audio, Video, Power & Main Connectors

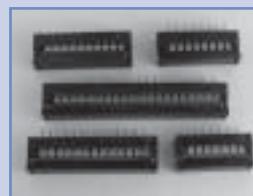
		1-9	10-99	100-499	500+
KB5W	DIN5 connector PCB	0.377	0.335	0.299	0.279
RCA Jack RJ-113G	RCA jack, 6-7mm cable, gold plated	0.767	0.655	0.590	
RCA Plug RP-15G	RCA plug, 6-7mm cable, gold plated	0.806	0.688	0.620	
KEYSTONE 901	RCA jack, 6-7mm, PCB	0.930	0.844	0.718	0.665
SCART21	Connector SCART	0.653	0.557	0.502	
TV1101 M	TV Plug	0.253	0.216	0.195	
TV1102 F	TV Jack	0.255	0.218	0.196	
AP340	Stereo Plug 3.5mm	0.332	0.284	0.256	
YPJ-8168X	Phone Jack 3.5mm	0.275	0.245	0.218	0.204
YPJ-8174X	Phone Jack 3.5mm	0.184	0.164	0.146	0.136
YDJ-1132	DC Power Jack 2.5mm lead wire terminals	0.471	0.418	0.373	0.349
YDJ-1134	DC Power Jack 2.0mm lead wire terminals	0.150	0.134	0.119	0.111
YDJ-1136	DC Power Jack 2.5mm lead wire terminals	0.157	0.140	0.125	0.116
YDJ-1140	DC Power Jack 2.5mm P.C.B. terminals	0.206	0.184	0.164	0.153
YDJ-1174	DC Power Jack 2.0mm P.C.B. terminals	0.196	0.174	0.155	0.145
YDJ-1182	DC Power Jack 1.3mm P.C.B. terminals	0.213	0.190	0.169	0.158
AP351B	DC Plug 2.5x9mm, receptacle	0.295	0.252	0.227	
AP352A	DC Plug 2.1x9mm, receptacle	0.337	0.288	0.260	
AP353A	DC Plug 2.1x14mm, receptacle	0.348	0.297	0.268	
AP353B	DC Plug 2.5x14mm, receptacle	0.312	0.266	0.240	
AP355B	DC Plug 1.3x9mm, receptacle	0.311	0.266	0.240	
SCHURTER KD14.1101.151	Power entry module type KD D/fuse flanged	6.437	5.510	5.150	
SCHURTER 4303.2403	Fuse drawer double fused 5x20	1.390	1.190	1.112	
SCHURTER 6200.2200	Power entry module type 6200/fuse flanged	1.685	1.442	1.348	
SCHURTER 4785.0000	Power Jack 10A 250V 90°entry	2.733	2.340	2.187	
AC PLUG 6A 250V	AC Plug 6A 250V	0.646	0.552	0.497	
YAS2020	Power Jack 10A 250V	0.351	0.299	0.270	

Information about offered fuse holders is available in the Section after Section "Fuses" on page 89.

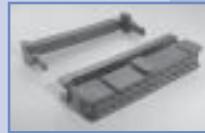
Information about offered battery holders is available in the Section after Section "Batteries" on page 159.

Flat cable connectors

		1-9	10-99	100-499	500+
PCT10	Transition Plug Connector (fl.cable) 2x5	0.182	0.155	0.148	0.135
PCT14	Transition Plug Connector (fl.cable) 2x7	0.218	0.186	0.178	0.162
PCT16	Transition Plug Connector (fl.cable) 2x8	0.226	0.193	0.184	0.168
PCT20	Transition Plug Connector (fl.cable) 2x10	0.232	0.198	0.189	0.172
PCT26	Transition Plug Connector (fl.cable) 2x13	0.260	0.221	0.211	0.192
PCT34	Transition Plug Connector (fl.cable) 2x17	0.284	0.242	0.231	0.210
PCT40	Transition Plug Connector (fl.cable) 2x20	0.361	0.308	0.295	0.268



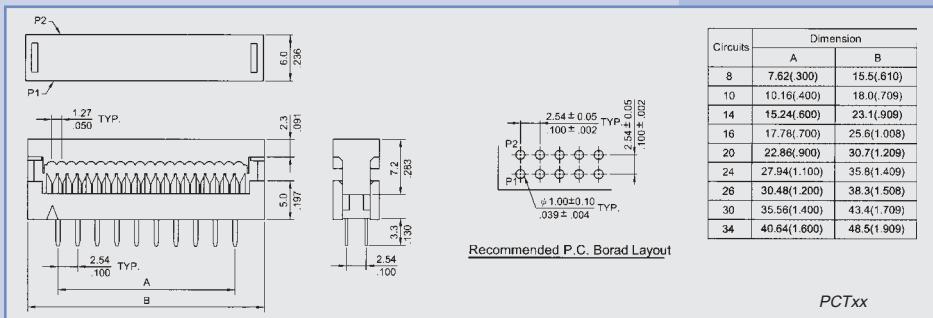
PCTxx



IDCxxDH

Flat cable connectors

1-9 10-99 100-499 500+



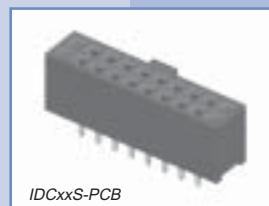
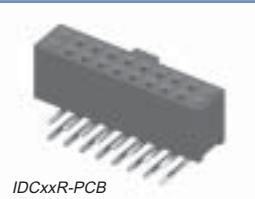
Circuits	Dimension	
	A	B
8	7.62(.300)	15.5(.610)
10	10.16(.400)	18.0(.709)
14	15.24(.600)	23.1(.909)
16	17.78(.700)	25.6(1.008)
20	22.86(.900)	30.7(1.209)
24	27.94(1.100)	35.8(1.409)
26	30.48(1.200)	38.3(1.508)
30	35.56(1.400)	43.4(1.709)
34	40.64(1.600)	48.5(1.909)

PCTxx

IDC10DH IDC (flat cable) socket connector 10c
IDC14DH IDC (flat cable) socket connector 14c
IDC16DH IDC (flat cable) socket connector 16c
IDC20DH IDC (flat cable) socket connector 20c
IDC26DH IDC (flat cable) socket connector 26c
IDC34DH IDC (flat cable) socket connector 34c
IDC40DH IDC (flat cable) socket connector 40c
IDC50DH IDC (flat cable) socket connector 50c
IDC64DH IDC (flat cable) socket connector 64c

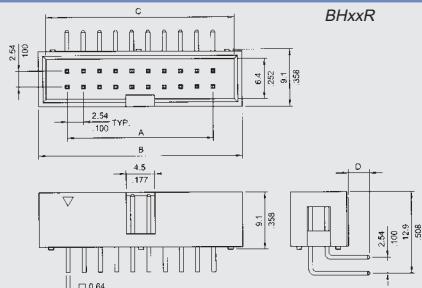
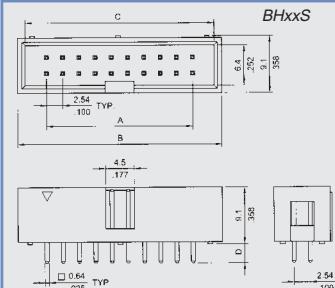
IDC10S-PCB Dual Row Female Header 2x5 PCB
IDC14S-PCB Dual Row Female Header 2x7 PCB
IDC20S-PCB Dual Row Female Header 2x10 PCB
IDC26S-PCB Dual Row Female Header 2x13 PCB
IDC34S-PCB Dual Row Female Header 2x17 PCB
IDC10R-PCB Dual Row Female Header 2x5 right angle PCB
IDC34R-PCB Dual Row Female Header 2x17 right angle PCB

1-9	10-99	100-499	500+
0.089	0.079	0.071	0.066
0.131	0.116	0.104	0.097
0.115	0.102	0.091	0.085
0.123	0.109	0.097	0.091
0.132	0.117	0.104	0.097
0.131	0.117	0.104	0.097
0.169	0.150	0.134	0.125
0.226	0.201	0.179	0.167
0.408	0.363	0.324	0.303

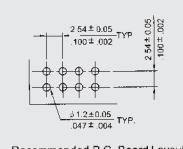


BH10S Box Header Connector 2x5
BH14S Box Header Connector 2x7
BH16S Box Header Connector 2x8
BH20S Box Header Connector 2x10
BH26S Box Header Connector 2x13
BH34S Box Header Connector 2x17

1-9	10-99	100-499	500+
0.063	0.054	0.049	0.047
0.064	0.055	0.050	0.048
0.071	0.061	0.056	0.053
0.078	0.066	0.061	0.058
0.086	0.073	0.067	0.064
0.107	0.091	0.083	0.079



A = 2.54 x No. of Spaces
B = A + 10.16
C = A + 7.86
* Available circuits: 8,10,14,16,20,24,26,30
34,40,44,50,60 and 64

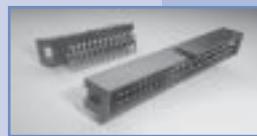


Flat cable connectors

		1-9	10-99	100-499	500+
BH40S	Box Header Connector 2x20	0.121	0.103	0.094	0.090
BH50S	Box Header Connector 2x25	0.155	0.132	0.121	0.115
BH64S	Box Header Connector 2x25	0.216	0.184	0.168	0.160
BH10R	Box Header Connector right angle 2x5	0.106	0.090	0.082	0.078
BH14R	Box Header Connector right angle 2x7	0.122	0.104	0.095	0.090
BH16R	Box Header Connector right angle 2x8	0.161	0.137	0.125	0.119
BH20R	Box Header Connector right angle 2x10	0.163	0.139	0.127	0.121
BH26R	Box Header Connector right angle 2x13	0.186	0.159	0.145	0.138
BH34R	Box Header Connector right angle 2x17	0.215	0.183	0.167	0.159
BH40R	Box Header Connector right angle 2x20	0.223	0.190	0.173	0.165
BH50R	Box Header Connector right angle 2x25	0.304	0.259	0.236	0.225



BHxxS



BHxxR

		1-9	10-99	100-499	500+
DILF14	DIP Plug Connector 14p	0.260	0.231	0.206	0.193
DILF16	DIP Plug Connector 16p	0.342	0.304	0.271	0.253
DILF18	DIP Plug Connector 18p	0.361	0.321	0.286	0.267
DILF20	DIP Plug Connector 20p	0.384	0.341	0.304	0.284
DILF24	DIP Plug Connector 24p	0.402	0.357	0.319	0.298
DILF28	DIP Plug Connector 28p	0.456	0.406	0.362	0.338
DILF32	DIP Plug Connector 32p	0.500	0.444	0.396	0.370
DILF40	DIP Plug Connector 40p	0.562	0.500	0.446	0.417

Connectors

		1-9	10-99	100-499	500+
PN1X8	Board to B. Socket Straight 8.5mm 1x8	0.112	0.100	0.089	0.083
PN1X10	Board to B. Socket Straight 8.5mm 1x10	0.073	0.065	0.058	0.054
PN1X16	Board to B. Socket Straight 8.5mm 1x16	0.114	0.102	0.091	0.085
PN1X20	Board to B. Socket Straight 8.5mm 1x20	0.141	0.125	0.112	0.105
PN1X20-B	Board to B. Socket Straight 5.2mm 1x20	0.447	0.398	0.354	0.331
PN1X24	Board to B. Socket Straight 8.5mm 1x24	0.195	0.173	0.154	0.144
PN1X40	Board to B. Socket Straight 8.5mm 1x40	0.370	0.329	0.294	0.274
PN2X8	Board to B. Socket Straight 8.5mm 2x8	0.133	0.118	0.106	0.099
PN2X10	Board to B. Socket Straight 8.5mm 2x10	0.136	0.120	0.107	0.100
PN2X15	Board to B. Socket Straight 8.5mm 2x15	0.202	0.180	0.160	0.150
PN2X16S	Board to B. Socket Straight 5.5mm 2x16	0.321	0.285	0.254	0.238
PN2X20	Board to B. Socket Straight 8.5mm 2x20	0.271	0.241	0.215	0.201
PN2X40	Board to B. Socket Straight 8.5mm 2x40	0.542	0.482	0.430	0.402
PR2X15	Board to B. Socket R.angle 8.5mm 1x15	0.325	0.289	0.258	0.241
PR2X20	Board to B. Socket R.angle 8.5mm 1x15	0.448	0.398	0.355	0.332
PN1X10-2.0	2.0mm Board to B. Socket Straight 4.7mm 1x10	0.239	0.212	0.189	0.177
PN1X20-2.0	2.0mm Board to B. Socket Straight 4.7mm 1x20	0.298	0.265	0.236	0.221
PN2X5-2.0	2.0mm Board to B. Socket Straight 4.7mm 2x5	0.249	0.222	0.198	0.185
PN2X10-2.0	2.0mm Board to B. Socket Straight 4.7mm 2x10	0.320	0.284	0.253	0.237
PN2X5-2.0 SMD	2.0mm Board to B. Socket SMD 4.7mm 2x5	0.458	0.407	0.363	0.340
PN2X10-2.0 SMD	2.0mm Board to B. Socket SMD 4.7mm 2x10	0.523	0.465	0.415	0.388
PN2X17-1.27 SMD	1.27mm Board to B. Socket SMD 2.2mm 2x17	0.550	0.489	0.436	0.407
PN2X30-1.27 SMD	1.27mm Board to B. Socket SMD 4.6mm 2x30 0.4mm square pin	1.910	1.698	1.514	1.415

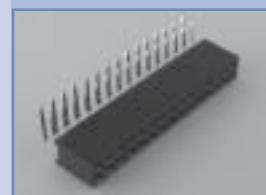
PNB1X2	2.54 mm Wire to Board Connector 1x2	0.019	0.017	0.014	0.013
PNB1X3	2.54 mm Wire to Board Connector 1x3	0.025	0.023	0.020	0.018
PNB1X4	2.54 mm Wire to Board Connector 1x4	0.032	0.029	0.025	0.023
PNB1X6	2.54 mm Wire to Board Connector 1x6	0.047	0.042	0.036	0.033
PNB1X10	2.54 mm Wire to Board Connector 1x10	0.093	0.084	0.072	0.066
PNB2X2	2.54 mm Wire to Board Connector 2x2	0.041	0.037	0.031	0.029



PN1x20 PN1x10 PN1x8



PN2x15 PN2x20

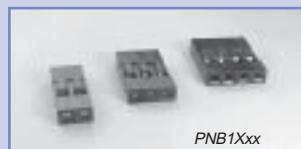


PR2x15

Connectors

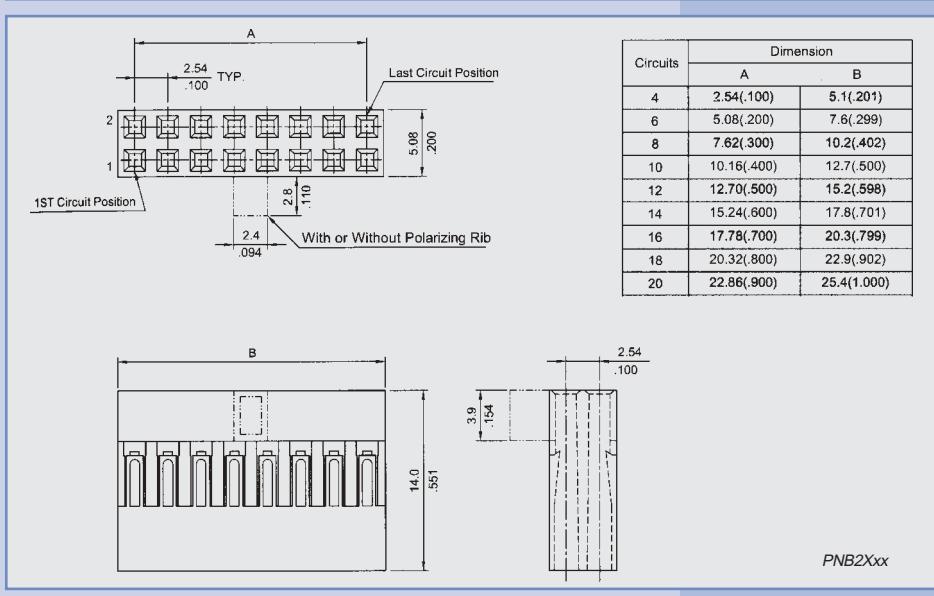
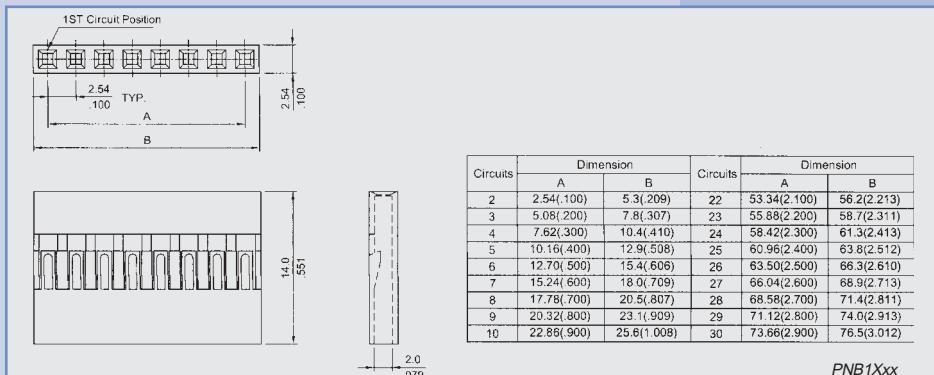
		1-9	10-99	100-499	500+
PNB2X3	2.54 mm Wire to Board Connector 2x3	0.061	0.055	0.047	0.043
PNB2X5	2.54 mm Wire to Board Connector 2x5	0.101	0.092	0.078	0.072
PNB2X6	2.54 mm Wire to Board Connector 2x6	0.121	0.110	0.094	0.087
PNB2X10	2.54 mm Wire to Board Connector 2x10	0.202	0.183	0.156	0.144
PPLUG	Polarizing Plug for PNB Connectors	0.025	0.023	0.020	0.018
PNB1X2-2.0	2.0 mm Wire to Board Connector 1x2	0.041	0.037	0.031	0.029
PNB1X3-2.0	2.0 mm Wire to Board Connector 1x3	0.059	0.053	0.045	0.042
PNB1X4-2.0	2.0 mm Wire to Board Connector 1x4	0.080	0.073	0.062	0.057
PNB1X8-2.0	2.0 mm Wire to Board Connector 1x8	0.161	0.146	0.124	0.115
PNB1X10-2.0	2.0 mm Wire to Board Connector 1x10	0.203	0.185	0.157	0.145
PNB2X2-2.0	2.0 mm Wire to Board Connector 2x2	0.080	0.073	0.062	0.057
PNB2X3-2.0	2.0 mm Wire to Board Connector 2x3	0.118	0.107	0.091	0.084
PNB2X4-2.0	2.0 mm Wire to Board Connector 2x4	0.161	0.146	0.124	0.115
PNB2X8-2.0	2.0 mm Wire to Board Connector 2x8	0.310	0.281	0.239	0.222
PNB2X10-2.0	2.0 mm Wire to Board Connector 2x10	0.385	0.349	0.297	0.275

HN1X16	Single row pin header 1x16 , 2.54mm	0.040	0.036	0.032	0.030
HN1X40	Single row pin header 1x40 , 2.54mm	0.090	0.080	0.071	0.066
HN2X20	Double row pin header 2x20, 2.54mm	0.088	0.078	0.069	0.065
HN2X40	Double row pin header 2x40, 2.54mm	0.177	0.158	0.141	0.131
HN1X20L-25MM	Single row pin header h=25mm 1x20 2.54mm	0.299	0.266	0.237	0.222



PNB1XXX

PNB2XXX



Connectors

		1-9	10-99	100-499	500+
HN1X20L-12MM SMD	Single row pin header SMD h=12mm 1x20 2.54mm	0.472	0.420	0.374	0.350
HN2X10B-16MM	Double row pin header straight h=16.4mm 2x10 2.54mm	0.432	0.384	0.342	0.320
HN1X40 SMD	Single row pin header SMD 1x40 2.54mm	0.729	0.648	0.578	0.540
HN2X40 SMD	Double row pin header SMD 2x20 2.54mm	1.459	1.297	1.156	1.081
HR1X40	Single row pin header 1x40 , 2.54mm, 90°	0.188	0.167	0.149	0.139
HR2X40	Double row pin header 2x40, 2.54mm, 90°	0.401	0.357	0.318	0.297
HN1X20-2.0	Single row pin header 1x20 , 2mm	0.065	0.057	0.051	0.048
HN2X20-2.0	Double row pin header 2x20, 2mm	0.131	0.116	0.104	0.097
HN1X2-2.0 SMD	Single row pin header SMD 1x22mm	0.070	0.062	0.056	0.052
HN1X20-2.0 SMD	Single row pin header SMD 1x20 2mm	0.519	0.461	0.411	0.384
HN2X10-2.0 SMD	Double row pin header SMD 2x10 2mm	0.543	0.483	0.431	0.402
HN2X17-1.27	Double row pin header 2x17 1.27mm	0.551	0.490	0.437	0.409



HN1Xxx-2.0



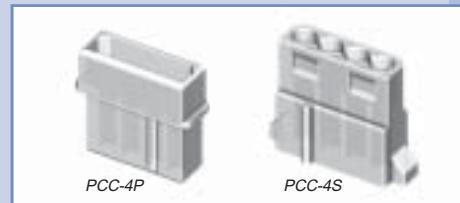
HNXxx-2.0 SMD



HN2Xxx-1.27



HR1Xxx



PCC-4P

PCC-4S



HN1Xxx-2.0 SMD

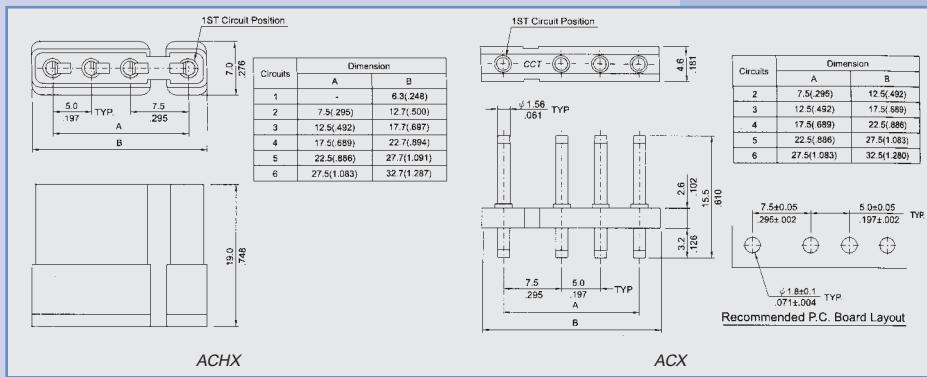
		1-9	10-99	100-499	500+	2000+
MJ6	Jumper 2.54/6mm	0.045	0.0090	0.0058	0.0049	0.0045
MJ14	Jumper 2.54/14mm	0.118	0.0237	0.0152	0.0128	0.0119
MJ3.4-2.0	Jumper 2.00 / 3.4mm	0.137	0.0273	0.0175	0.0147	0.0137

Connectors 5.08mm

		1-9	10-99	100-499	500+
PCC-4S	Wire Connector Female 5.08mm 4P 7A/250V	0.082	0.073	0.065	0.060
PCC-4P	Wire Connector Male 5.08mm 4P 7A/250V	0.084	0.074	0.066	0.062

Connectors 5mm

		1-9	10-99	100-499	500+
ACH2	Crimp Term.Conn. 7.5(5.0)mm 2P 3A/250V	0.035	0.032	0.028	0.026
ACH3	Crimp Term.Conn. 7.5(5.0)mm 3P 3A/250V	0.051	0.046	0.041	0.038
ACH4	Crimp Term.Conn. 7.5(5.0)mm 4P 3A/250V	0.067	0.059	0.053	0.049
ACH5	Crimp Term.Conn. 7.5(5.0)mm 5P 3A/250V	0.080	0.071	0.063	0.059
ACH6	Crimp Term.Conn. 7.5(5.0)mm 6P 3A/250V	0.102	0.090	0.081	0.075
AC2	Connector PCB 7.5(5.0)mm 2P 3A/250V	0.046	0.041	0.036	0.034
AC3	Connector PCB 7.5(5.0)mm 3P 3A/250V	0.054	0.048	0.043	0.040



Connectors 5mm

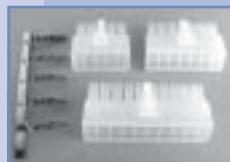
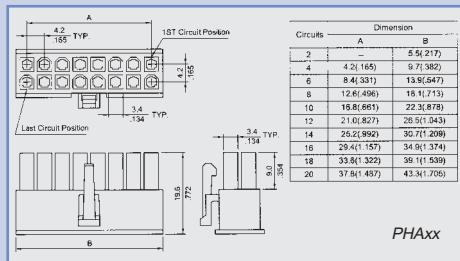
AC4	Connector PCB 7.5(5.0)mm 4P 3A/250V
AC5	Connector PCB 7.5(5.0)mm 5P 3A/250V
AC6	Connector PCB 7.5(5.0)mm 6P 3A/250V

1-9	10-99	100-499	500+
0.066	0.059	0.052	0.049
0.083	0.074	0.066	0.062
0.098	0.087	0.077	0.072

**Connectors 4.20mm**

PHA02	Receptacle connector, 4.20mm 2P 7A
PHA03	Receptacle connector, 4.20mm 3P 7A
PHA04	Receptacle connector, 4.20mm 2X2P 7A
PHA06	Receptacle connector, 4.20mm 2X3P 7A
PHA08	Receptacle connector, 4.20mm 2X4P 7A
PHA09	Receptacle connector, 4.20mm 3X3P 7A
PHA10	Receptacle connector, 4.20mm 2X5P 7A
PHA12	Receptacle connector, 4.20mm 2X6P 7A
PHA14	Receptacle connector, 4.20mm 2X7P 6A
PHA20	Receptacle connector, 4.20mm 2X10P 6A

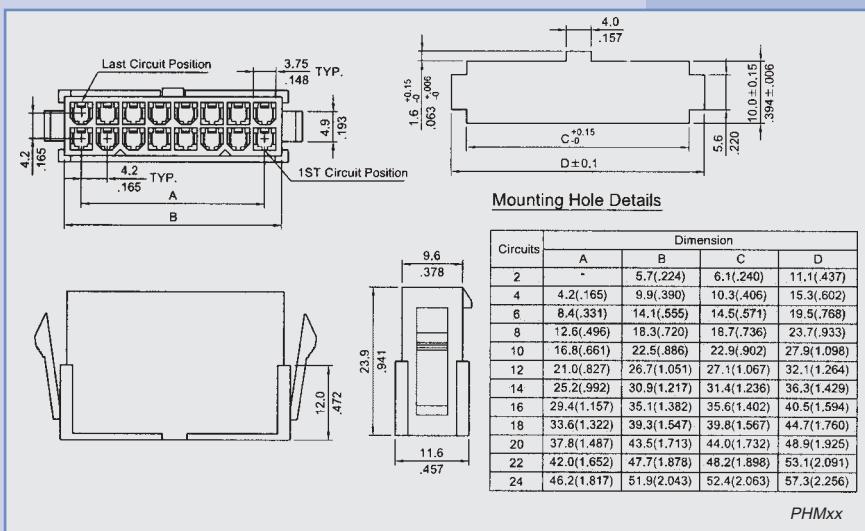
1-9	10-99	100-499	500+
0.069	0.062	0.053	0.049
0.116	0.105	0.090	0.083
0.119	0.108	0.092	0.085
0.149	0.135	0.115	0.107
0.197	0.179	0.152	0.141
0.211	0.191	0.163	0.151
0.180	0.164	0.139	0.129
0.210	0.190	0.162	0.150
0.237	0.215	0.183	0.169
0.294	0.267	0.227	0.210



PHAx

PHM02	Plug connector, 4.20mm 2P 7A
PHM03	Plug connector, 4.20mm 3P 7A
PHM04	Plug connector, 4.20mm 2X2P 7A
PHM06	Plug connector, 4.20mm 2X3P 7A
PHM09	Plug connector, 4.20mm 3X3P 7A

1-9	10-99	100-499	500+
0.128	0.116	0.099	0.091
0.130	0.118	0.101	0.093
0.189	0.172	0.146	0.135
0.248	0.225	0.192	0.177
0.332	0.301	0.256	0.237

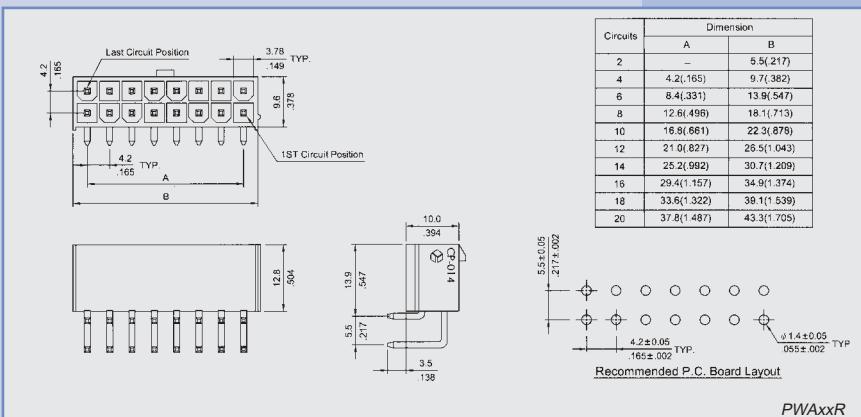


PHMx

Connectors 4.20mm

PWA08R	DIP Solder Headers, 90°, 4.20mm 2X4P 7A
PWA10R	DIP Solder Headers, 90°, 4.20mm 2X5P 7A
PWA12R	DIP Solder Headers, 90°, 4.20mm 2X6P 6A
PWA14R	DIP Solder Headers, 90°, 4.20mm 2X4P 6A
PWA20R	DIP Solder Headers, 90°, 4.20mm 2X10P 6A

	1-9	10-99	100-499	500+
0.134	0.121	0.103	0.095	
0.153	0.139	0.118	0.109	
0.173	0.157	0.133	0.123	
0.193	0.175	0.149	0.138	
0.248	0.225	0.192	0.177	

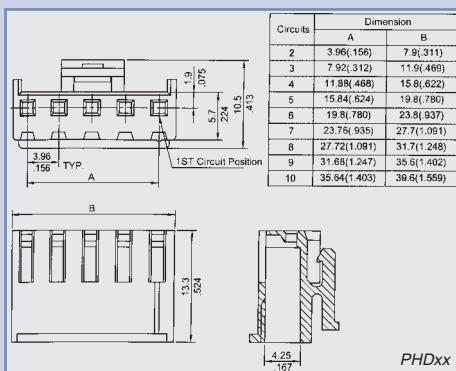


PWAxxR

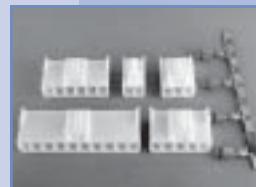
Connectors 3.96mm

PHD2	Wire to Board Connector 3.96mm 2P 7A/250V
PHD3	Wire to Board Connector 3.96mm 3P 7A/250V
PHD4	Wire to Board Connector 3.96mm 4P 7A/250V
PHD5	Wire to Board Connector 3.96mm 5P 7A/250V
PHD6	Wire to Board Connector 3.96mm 6P 7A/250V
PHD8	Wire to Board Connector 3.96mm 8P 7A/250V
PHD10	Wire to Board Connector 3.96mm 10P 7A/250V
PHD12	Wire to Board Connector 3.96mm 12P 7A/250V

	1-9	10-99	100-499	500+
0.033	0.030	0.025	0.023	
0.047	0.043	0.036	0.033	
0.063	0.057	0.049	0.045	
0.080	0.073	0.062	0.057	
0.097	0.088	0.075	0.069	
0.132	0.120	0.102	0.094	
0.167	0.151	0.129	0.119	
0.175	0.159	0.135	0.125	



PHDxx

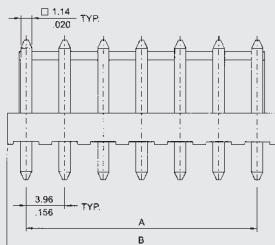


PHDxx

PWD2S	Pin Header 3.96mm 2P 7A/250V
PWD3S	Pin Header 3.96mm 3P 7A/250V
PWD4S	Pin Header 3.96mm 4P 7A/250V
PWD5S	Pin Header 3.96mm 5P 7A/250V
PWD6S	Pin Header 3.96mm 6P 7A/250V
PWD8S	Pin Header 3.96mm 8P 7A/250V
PWD10S	Pin Header 3.96mm 10P 7A/250V
PWD2R	Pin Header 90°, 3.96mm 2P 7A/250V
PWD3R	Pin Header 90°, 3.96mm 3P 7A/250V
PWD4R	Pin Header 90°, 3.96mm 4P 7A/250V
PWD5R	Pin Header 90°, 3.96mm 5P 7A/250V
PWD6R	Pin Header 90°, 3.96mm 6P 7A/250V
PWD8R	Pin Header 90°, 3.96mm 8P 7A/250V
PWD10R	Pin Header 90°, 3.96mm 10P 7A/250V
PWD12R	Pin Header 90°, 3.96mm 12P 7A/250V

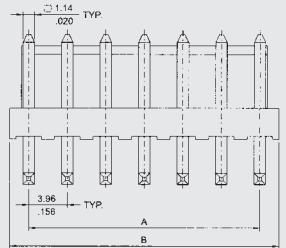
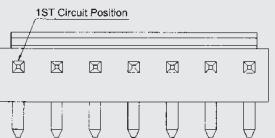
PWDxxS/R

Connectors 3.96mm

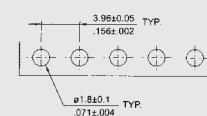


PWDxxS

Circuits	Dimension	
	A	B
2	3.96(.156)	7.8(.307)
3	7.92(.312)	11.8(.465)
4	11.88(.468)	15.8(.622)
5	15.84(.624)	19.7(.776)
6	19.80(.780)	23.7(.933)
7	23.76(.836)	27.8(.1087)
8	27.72(.1091)	31.61(.244)
9	31.68(.1247)	35.5(.398)
10	35.64(.1403)	39.5(.555)



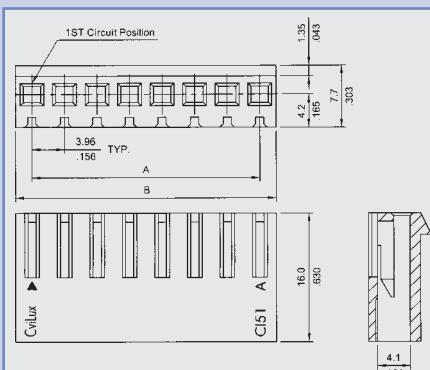
PWDxxR



Recommended P.C. Board Layout

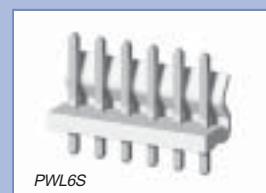
PHU2 Crimp Terminal Conn. 3.96mm 2P 7A/250V
PHU3 Crimp Terminal Conn. 3.96mm 3P 7A/250V
PHU4 Crimp Terminal Conn. 3.96mm 4P 7A/250V
PHU6 Crimp Terminal Conn. 3.96mm 6P 7A/250V
PWL2S Connector PCB 3.96mm 2P 7A/250V
PWL3S Connector PCB 3.96mm 3P 7A/250V
PWL4S Connector PCB 3.96mm 4P 7A/250V
PWL6S Connector PCB 3.96mm 6P 7A/250V
PWL2R Connector r.angle PCB 3.96mm 2P 7A/250V
PWL3R Connector r.angle PCB 3.96mm 3P 7A/250V
PWL4R Connector r.angle PCB 3.96mm 4P 7A/250V
PWL6R Connector r.angle PCB 3.96mm 6P 7A/250V

1-9	10-99	100-499	500+
0.024	0.021	0.019	0.018
0.037	0.033	0.029	0.028
0.051	0.045	0.040	0.038
0.075	0.067	0.060	0.056
0.023	0.018	0.015	0.014
0.027	0.024	0.021	0.020
0.039	0.035	0.031	0.029
0.052	0.046	0.041	0.038
0.022	0.020	0.018	0.016
0.033	0.029	0.026	0.024
0.043	0.038	0.034	0.032
0.065	0.057	0.051	0.048



PHUxx

Circuits	Dimension	
	A	B
2	3.96(.156)	8.0(.315)
3	7.92(.312)	12.0(.472)
4	11.88(.468)	15.9(.626)
5	15.84(.624)	19.9(.783)
6	19.80(.780)	23.9(.941)



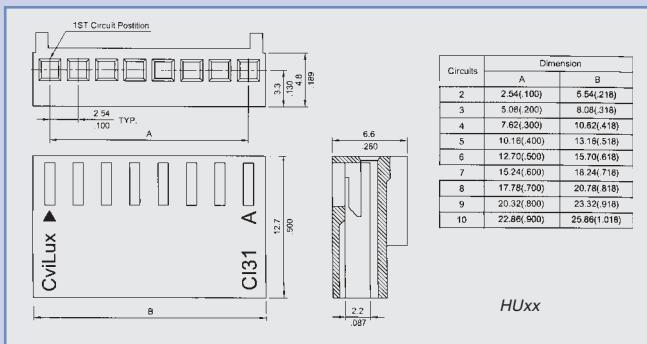
PWL6S



PWL6R

Connectors 2.54mm

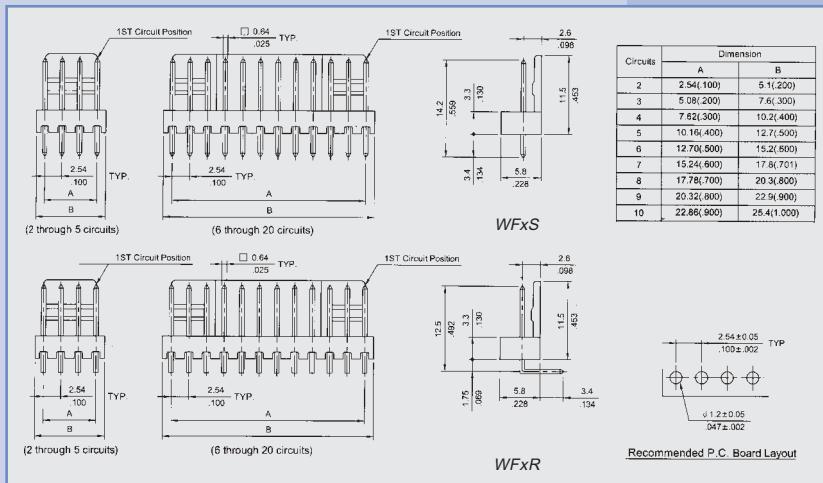
		1-9	10-99	100-499	500+
HU2	Crimp Terminal Conn. 2.54mm 2P 3A/250V	0.022	0.0167	0.0136	0.0124
HU3	Crimp Terminal Conn. 2.54mm 3P 3A/250V	0.029	0.0236	0.0193	0.0175
HU4	Crimp Terminal Conn. 2.54mm 4P 3A/250V	0.037	0.0299	0.0244	0.0222
HU5	Crimp Terminal Conn. 2.54mm 5P 3A/250V	0.045	0.0366	0.0298	0.0271
HU6	Crimp Terminal Conn. 2.54mm 6P 3A/250V	0.055	0.0448	0.0365	0.0332
HU7	Crimp Terminal Conn. 2.54mm 7P 3A/250V	0.063	0.0512	0.0417	0.0379
HU8	Crimp Terminal Conn. 2.54mm 8P 3A/250V	0.073	0.0599	0.0488	0.0444
HU10	Crimp Terminal Conn. 2.54mm 10P 3A/250V	0.088	0.0720	0.0587	0.0534
WF2S	Connector PCB 2.54mm 2P 3A/250V	0.017	0.0130	0.0113	0.0087
WF3S	Connector PCB 2.54mm 3P 3A/250V	0.020	0.0153	0.0125	0.0114
WF4S	Connector PCB 2.54mm 4P 3A/250V	0.025	0.0186	0.0151	0.0138
WF5S	Connector PCB 2.54mm 5P 3A/250V	0.029	0.0238	0.0194	0.0177
WF6S	Connector PCB 2.54mm 6P 3A/250V	0.035	0.0285	0.0232	0.0211
WF7S	Connector PCB 2.54mm 7P 3A/250V	0.038	0.0308	0.0251	0.0228
WF8S	Connector PCB 2.54mm 8P 3A/250V	0.046	0.0375	0.0306	0.0278
WF10S	Connector PCB 2.54mm 10P 3A/250V	0.055	0.0449	0.0366	0.0333
WF2R	Connector 90° PCB 2.54mm 2P 3A/250V	0.020	0.0148	0.0129	0.0099
WF3R	Connector 90° PCB 2.54mm 3P 3A/250V	0.022	0.0183	0.0149	0.0135
WF4R	Connector 90° PCB 2.54mm 4P 3A/250V	0.028	0.0230	0.0187	0.0170
WF5R	Connector 90° PCB 2.54mm 5P 3A/250V	0.035	0.0286	0.0233	0.0212
WF6R	Connector 90° PCB 2.54mm 6P 3A/250V	0.042	0.0345	0.0281	0.0255
WF8R	Connector 90° PCB 2.54mm 8P 3A/250V	0.052	0.0429	0.0349	0.0318
WF10R	Connector 90° PCB 2.54mm 10P 3A/250V	0.066	0.0541	0.0441	0.0401



HUxx

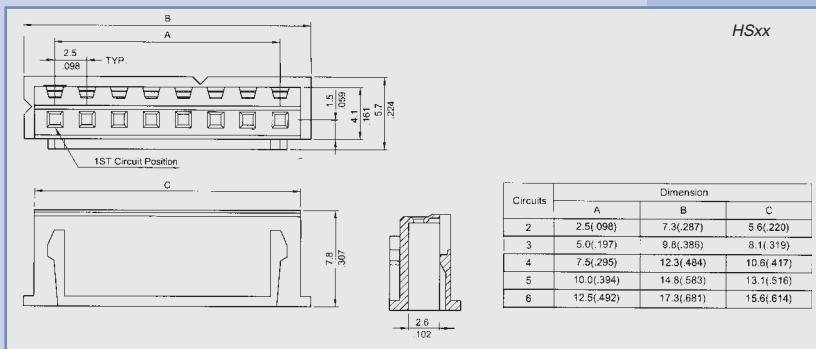


WFxxS/R

**Connectors 2.50mm**

		1-9	10-99	100-499	500+
HS02	Crimp Term.Conn.2.50mm 2P 3A/250V	0.020	0.015	0.012	0.011
HS03	Crimp Term.Conn.2.50mm 3P 3A/250V	0.022	0.020	0.017	0.016
HS04	Crimp Term.Conn.2.50mm 4P 3A/250V	0.029	0.026	0.022	0.021
HS05	Crimp Term.Conn.2.50mm 5P 3A/250V	0.035	0.032	0.027	0.025
HS06	Crimp Term.Conn.2.50mm 6P 3A/250V	0.042	0.038	0.033	0.030
HS07	Crimp Term.Conn.2.50mm 7P 3A/250V	0.060	0.055	0.046	0.043
HS09	Crimp Term.Conn.2.50mm 9P 3A/250V	0.077	0.070	0.059	0.055
WS02S	Connector PCB 2.50mm 2P 3A/250V	0.018	0.013	0.012	0.009
WS03S	Connector PCB 2.50mm 3P 3A/250V	0.020	0.016	0.013	0.012
WS04S	Connector PCB 2.50mm 4P 3A/250V	0.021	0.019	0.016	0.015

Connectors 2.50mm



WS05S Connector PCB 2.50mm 5P 3A/250V
WS06S Connector PCB 2.50mm 6P 3A/250V
WS07S Connector PCB 2.50mm 7P 7A/250V
WS09S Connector PCB 2.50mm 9P 3A/250V

WS02R Connector PCB 2.50mm 2P 3A/250V 90°
WS03R Connector PCB 2.50mm 3P 3A/250V 90°
WS04R Connector PCB 2.50mm 4P 3A/250V 90°
WS05R Connector PCB 2.50mm 5P 3A/250V 90°
WS06R Connector PCB 2.50mm 6P 3A/250V 90°
WS07R Connector PCB 2.50mm 7P 3A/250V 90°
WS09R Connector PCB 2.50mm 9P 3A/250V 90°

CU2 Crimp Term.Conn.2.50mm 2P 3A/250V
CU3 Crimp Term.Conn.2.50mm 3P 3A/250V
CU7 Crimp Term.Conn.2.50mm 7P 3A/250V
CU8 Crimp Term.Conn.2.50mm 8P 3A/250V
CU9 Crimp Term.Conn.2.50mm 9P 3A/250V
CW2S Connector PCB 2.50mm 2P 3A/250V
CW3S Connector PCB 2.50mm 3P 3A/250V
CW7S Connector PCB 2.50mm 7P 3A/250V
CW8S Connector PCB 2.50mm 8P 3A/250V
CW9S Connector PCB 2.50mm 9P 3A/250V
CW2R Connector PCB 90° 2.50mm 2P 3A/250V
CW3R Connector PCB 90° 2.50mm 3P 3A/250V
CW7R Connector PCB 90° 2.50mm 7P 3A/250V
CW8R Connector PCB 90° 2.50mm 8P 3A/250V
CW9R Connector PCB 90° 2.50mm 9P 3A/250V



1-9 10-99 100-499 500+

0.025	0.023	0.019	0.018
0.029	0.026	0.023	0.021
0.042	0.038	0.033	0.030
0.050	0.045	0.039	0.036

0.018	0.014	0.011	0.010
0.023	0.019	0.015	0.014
0.024	0.022	0.019	0.017
0.029	0.026	0.023	0.021
0.034	0.031	0.026	0.024
0.048	0.043	0.037	0.034
0.059	0.053	0.045	0.042

Connectors 2.00mm

DU02 Crimp Term.Conn. 2mm 2P 2A/250V
DU04 Crimp Term.Conn. 2mm 4P 2A/250V
DW02S Connector PCB 2mm 2P 2A/250V
DW02R Connector PCB 90° 2mm 2P 2A/250V
DW04S Connector PCB 2mm 4P 2A/250V
DW04R Connector PCB 90° 2mm 4P 2A/250V

1-9 10-99 100-499 500+

0.031	0.028	0.024	0.022
0.043	0.039	0.033	0.031
0.016	0.012	0.010	0.009
0.015	0.014	0.012	0.011
0.021	0.019	0.016	0.015
0.024	0.022	0.018	0.017



Connectors 1.25mm

		1-9	10-99	100-499	500+
SU02	Crimp Term.Conn.1.25mm 2P 1A/100V	0.034	0.031	0.026	0.024
SU04	Crimp Term.Conn.1.25mm 4P 1A/100V	0.050	0.046	0.039	0.036
SU06	Crimp Term.Conn.1.25mm 6P 1A/100V	0.073	0.066	0.056	0.052
SU08	Crimp Term.Conn.1.25mm 8P 1A/100V	0.094	0.086	0.073	0.067
SU10	Crimp Term.Conn.1.25mm 10P 1A/100V	0.113	0.102	0.087	0.081
WU02S	Connector PCB 1.25mm 2P 1A/100V	0.084	0.076	0.065	0.060
WU04S	Connector PCB 1.25mm 4P 1A/100V	0.113	0.103	0.087	0.081
WU06S	Connector PCB 1.25mm 6P 1A/100V	0.152	0.138	0.118	0.109
WU08S	Connector PCB 1.25mm 8P 1A/100V	0.191	0.173	0.147	0.136
WU10S	Connector PCB 1.25mm 10P 1A/100V	0.227	0.206	0.175	0.162



SUxx



WUxxS

Flat Flexible Cable Connectors

		1-9	10-99	100-499	500+
FF10L9S	Flat Flexible Cable Conn. 9p 1mm	0.171	0.155	0.132	0.122
FF10Z9S	Flat Flexible Cable Conn. 9p 1mm	0.137	0.125	0.106	0.098
FF10Z9R	Flat Flexible Cable Conn. 9p 1mm 90°	0.139	0.126	0.107	0.099
FF10L14S	Flat Flexible Cable Conn. 14p 1mm	0.180	0.163	0.139	0.129
FF10Z14RD	Flat Flexible Cable Conn. 14p 1mm 90° downside	0.153	0.138	0.118	0.109
FF10L17S	Flat Flexible Cable Conn. 17p 1mm	0.202	0.183	0.156	0.144
FF10Z30S	Flat Flexible Cable Conn. 30p 1mm	0.233	0.211	0.180	0.166
FF12L6S	Flat Flexible Cable Conn. 6p 1.25mm	0.077	0.069	0.059	0.055
FF12L20S	Flat Flexible Cable Conn. 20p 1.25mm	0.348	0.315	0.268	0.248
FF12Z20S	Flat Flexible Cable Conn. 20p 1.25mm	0.542	0.492	0.418	0.387
FF12Z20R	Flat Flexible Cable Conn. 20p 1.25mm 90°	0.542	0.492	0.418	0.387
FF12Z27S	Flat Flexible Cable Conn. 27p 1.25mm	0.740	0.671	0.571	0.529
FF12Z28S	Flat Flexible Cable Conn. 28p 1.25mm	0.847	0.768	0.653	0.605
FF25L6S	Flat Flexible Cable Conn. 6p 2.54mm	0.086	0.078	0.067	0.062
FF25L6R	Flat Flexible Cable Conn. 6p 2.54mm 90°	0.088	0.080	0.068	0.063
FF25L8S	Flat Flexible Cable Conn. 8p 2.54mm	0.084	0.076	0.065	0.060
FF25L8R	Flat Flexible Cable Conn. 8p 2.54mm 90°	0.086	0.078	0.067	0.062
FF25L9S	Flat Flexible Cable Conn. 8p 2.54mm	0.101	0.092	0.078	0.072
FF25L9R	Flat Flexible Cable Conn. 8p 2.54mm 90°	0.103	0.093	0.079	0.073
FF25L10S	Flat Flexible Cable Conn. 10p 2.54mm	0.111	0.101	0.086	0.079
FF25L10R	Flat Flexible Cable Conn. 10p 2.54mm 90°	0.131	0.119	0.101	0.093



FF10ZxxR



FF10ZxS



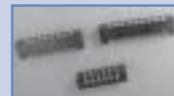
FF10LxxR



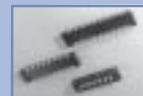
FF12ZxxR



FF12ZxxS



FF25LxR



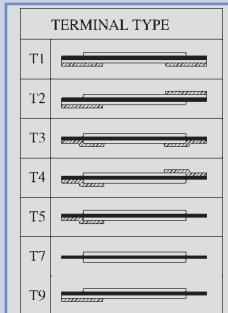
FF25LxS

Flat Flexible Cable Connectors SMD

		1-9	10-99	100-499	500+
FF05Z20RD SMD	Flat Flexible Cable Conn. 20p 0.5mm SMD	0.290	0.263	0.224	0.207
FF05Z40RD SMD	Flat Flexible Cable Conn. 40p 0.5mm SMD	0.378	0.343	0.291	0.270
FF10Z14RD SMD	Flat Flexible Cable Conn. 14p 1mm 90° downside SMD	0.210	0.190	0.162	0.150
FF10Z24RD SMD	Flat Flexible Cable Conn. 24p 1mm 90° downside SMD	0.420	0.381	0.324	0.300
FF10Z24RU SMD	Flat Flexible Cable Conn. 24p 1mm 90° upside SMD	0.420	0.381	0.324	0.300

Flat Flexible Cable

		1-9	10-99	100-499	500+
FFC12P28-180T1	Flat Flexible Cable 1.25mm 28p L=180 Type T1	0.830	0.753	0.640	0.593
FFC10P14-50T2	Flat Flexible Cable 1mm 14p L=50 Type T2	0.266	0.241	0.205	0.190



Flat Flexible Cable

FFC10P14-140T1	Flat Flexible Cable 1mm 14p L=140 Type T1	0.358	0.325	0.276	0.256
FFC10P16-50T1	Flat Flexible Cable 1mm 16p L=50 Type T1	0.291	0.264	0.225	0.208
FFC10P16-80T1	Flat Flexible Cable 1mm 16p L=80 Type T1	0.404	0.366	0.311	0.288
FFC05P20-110T1	Flat Flexible Cable 0.5mm 20p L=110 Type T1	0.416	0.378	0.321	0.297

For quantities over 5000pcs, it is possible to be ordered custom design flat flexible cables.

Terminals

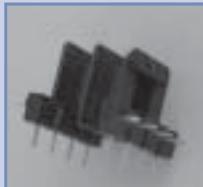
KEYSTONE 1287	PC quick-fit male vert. terminal 6.3mm	0.068	0.061	0.052	0.048
KEYSTONE 1280	PC quick-fit male 45° terminal 6.3mm, rivet type	0.091	0.082	0.070	0.065
KEYSTONE 3528	Vert terminal 6.3mm	0.148	0.134	0.114	0.105
KEYSTONE 4471	6.3mm quick-fit vinyl boot, clear	0.075	0.068	0.058	0.053
KEYSTONE 4966	PC quick fit terminal 6.3mm	0.105	0.096	0.081	0.075
KEYSTONE 8294	Quick slide butted seam terminal 6.3mm, insulated	0.241	0.219	0.186	0.172

Mechanical Accessories

		1-9	10-99	100+	1000+
KEYSTONE 730	Rubber grommet	0.076	0.069	0.059	0.054
KEYSTONE 5000	Thru-hole mount test point - red, miniature	0.181	0.164	0.139	0.129
KEYSTONE 5006	Thru-hole mount test point - black	0.185	0.168	0.142	0.132
KEYSTONE 8310	5mm LED Holder	0.211	0.191	0.163	0.151
KEYSTONE 7365	LED spacer mount 9.1mm (0.36")	0.097	0.088	0.075	0.069
KEYSTONE 7373	LED spacer mount 12.7mm (0.5")	0.102	0.093	0.079	0.073
KEYSTONE 1902B	Nylon standoffs L=3/8 Th.D=4/40	0.382	0.347	0.295	0.273
KEYSTONE 8803	PC Tension-fit Support L=12.7mm	0.097	0.088	0.075	0.069
KEYSTONE 8832	Stacking spacers 9.5mm	0.113	0.102	0.087	0.080
KEYSTONE 8834	Stacking spacers 15.8mm	0.125	0.114	0.097	0.089

Bobbins

		1-4	5-24	25-99	100+
E1274HDSF	EF12.6 x 7 x 4 (Hor) DS	0.196	0.174	0.160	0.145
E1274HBFF	EF12.6 x 7 x 4 Box With Feet	0.116	0.103	0.095	0.086
E1685HDSF	EF16 x 8 x 5 (Hor) DS	0.194	0.172	0.158	0.143
E1685HBFF	EF16 x 8 x 5 Box With Feet	0.136	0.121	0.111	0.101
E1685HSSF	EF16 x 8 x 5 (Hor) SS	0.203	0.180	0.165	0.150
E1685VSSF	EF16 x 8 x 5 (Ver) SS	0.203	0.180	0.165	0.150
E2010HDSF	EF20 x 10 x 6 (Hor) DS	0.308	0.273	0.251	0.228
E2010HDSF unpinned	EF20 x 10 x 6 (Hor) DS unpinned	0.308	0.273	0.251	0.228
E2010HPRF	EF20 (Hor) SS Primary Margin	0.312	0.277	0.254	0.231
E2010HSCF	EF20 (Hor) Secondary Cover	0.157	0.139	0.128	0.116
E2010HSSF	EF20 x 10 x 6 (Hor) SS	0.294	0.261	0.240	0.218
E2010HSSF unpinned	EF20 x 10 x 6 (Hor) SS unpinned, L-type	0.294	0.261	0.240	0.218
E2010HSPF	EF20 (Hor) Shield Plate	0.110	0.098	0.090	0.081
E2010VDSG	EF20 x 10 x 6 (Ver) DS	0.279	0.248	0.227	0.207
E2513HDEF	EF25 x 13 x 7 (Hor) DS (8 Pin)	0.326	0.290	0.266	0.242
E2513HSEF	EF25 x 13 x 7 (Hor) SS (8 Pin)	0.339	0.301	0.276	0.251
E2513HDSF	EF25 x 13 x 7 (Hor) DS (10 Pin)	0.351	0.312	0.286	0.260
E2513HDSF pins 2,4,6,7,9,10	EF25 x 13 x 7 (Hor) DS (6 Pins 2,4,6,7,9,10)	0.284	0.252	0.231	0.210
E2513HDSF unpinned	EF25 x 13 x 7 (Hor) DS (10 Pin - unpinned)	0.394	0.350	0.321	0.292
E2513HDGS	EF25 x 13 x 7 (Hor) DS (10 Pin)	0.326	0.290	0.266	0.242
E2513HSSF	EF25 x 13 x 7 (Hor) SS (10 Pin)	0.347	0.309	0.283	0.257
E2513VSSF	EF25 x 13 x 7 (Ver) SS (10 Pin)	0.347	0.309	0.283	0.257
E3015HDSF	E30 x 15 x 7 (Hor) DS	0.384	0.342	0.313	0.285



Exxxx



Uxxxx



Mxxxx

		1-9	10-99	100-499	500+
U30075DSF	UI 30 x 7.5 DS	0.374	0.333	0.305	0.277
U30075BSG	UI 30 x 7.5 Box	0.335	0.297	0.273	0.248
U30105DSF	UI 30 x 10.5 DS	0.380	0.337	0.309	0.281
U30105BSG	UI 30 x 10.5 Box	0.352	0.313	0.287	0.261
U39080DSF	UI 39 x 8.0 DS	0.421	0.374	0.343	0.312
U39080BSG	UI 39 x 8.0 Box	0.388	0.345	0.316	0.287
U39135DSF	UI 39 x 13.5 DS	0.437	0.388	0.356	0.324
U39135BSG	UI 39 x 13.5 Box	0.426	0.378	0.347	0.315
M30105DSG	MEI 30 x 10.5 DS Standard (23mm)	0.278	0.247	0.226	0.206
M30105BSG	MEI 30 x 10.5 Box Standard	0.200	0.177	0.163	0.148
M30125DSG	MEI 30 x 12.5 DS Standard (25mm)	0.278	0.247	0.227	0.206
M30125BSG	MEI 30 x 12.5 Box Standard	0.205	0.182	0.167	0.151
M30155DSG	MEI 30 x 15.5 DS Standard (28mm)	0.288	0.256	0.234	0.213

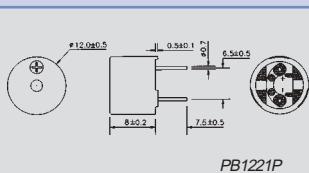
Bobbins		1-4	5-24	25-99	100+
M30155BSG	MEI 30 x 15.5 Box Standard	0.221	0.196	0.180	0.164
M30180DSG	MEI 30 x 18.0 DS Standard (30.5mm)	0.293	0.260	0.238	0.217
M30180BSG	MEI 30 x 18.0 Box Standard	0.221	0.197	0.180	0.164
M3807SSDG	MEI 38 x 7.5 SDS	0.301	0.268	0.245	0.223
M38136DSG	MEI 38 x 13.6 DS	0.323	0.287	0.263	0.239
M38200DSG	MEI 38 x 20 DS	0.356	0.316	0.290	0.264
M42148DSG	MEI 42 x 14.8 DS	0.352	0.313	0.286	0.260
M42148SSF	MEI 42 x 14.8 SS	0.382	0.340	0.311	0.283
M48168DSG	MEI 48 x 16.8 DS	0.369	0.328	0.301	0.273
M48208DSG	MEI 48 x 20.8 DS	0.388	0.345	0.316	0.288
M54188DSG	MEI 54 x 18.8 DS	0.460	0.409	0.375	0.340
M54255DSG	MEI 54 x 25.5 DS	0.467	0.415	0.381	0.346
SP-E 13/4-1471-6B S-A	COILFORMER E13/4 VER 1 SEC 6P	0.146	0.130	0.119	0.108
SP-E 16/5-1738-8B L-A	COILFORMER E16/5 HOR 1 SEC 8P	0.320	0.285	0.261	0.237
SP-E 16/5-1746-6B	COILFORMER E16/5 VER 1 SEC 6P	0.146	0.130	0.119	0.108
SP-E 20/6-1424-8B L-A	COILFORMER E20/6 HOR 1 SEC 8P	0.173	0.154	0.141	0.128
SP-E 20/6-1425-8B L-B	COILFORMER E20/6 HOR 2 SEC 8P	0.170	0.152	0.139	0.126
SP-E 25/7-1215-8B	COILFORMER E25/7 HOR 1 SEC 8P	0.208	0.185	0.169	0.154
SP-E 25/7-1445-8P	COILFORMER E25/7 HOR 2 SEC 8P	0.286	0.254	0.233	0.212
SP-E 25/7-1693-10B	COILFORMER E25/7 HOR 1 SEC 10P	0.280	0.248	0.228	0.207
SP-E 25/11-1418-8B L-A	COILFORMER E25/11 HOR 1 SEC 8P	0.710	0.631	0.579	0.526
SP-E 30/7 1636-12B L-A	COILFORMER E30/7 HOR 1 SEC 12P	0.275	0.244	0.224	0.204
SP-E 30/11-1562-12B	COILFORMER E30/11 HOR 1 SEC 12P	0.813	0.722	0.662	0.602
SP-E 32/9-1352-12B	COILFORMER E32/9 HOR 1 SEC 12P	0.605	0.538	0.493	0.448
SP-E 32/9-1481-12B	COILFORMER E32/9 HOR. 2 SEC 12P	0.669	0.595	0.545	0.496
SP-E 36/11-16B	COILFORMER E36/11 HOR 1SEC 16P	1.838	1.634	1.498	1.362
SP-E 42/15-1494-10B	COILFORMER E42/15 HOR 1 SEC 10P	0.747	0.664	0.609	0.553
SP-E 42/20-1690-14B	COILFORMER E42/20 HOR 1 SEC 14P	0.965	0.858	0.787	0.715
SP-E 42/20-1692-14B	COILFORMER E42/20 HOR 2 SEC 14P	1.575	1.400	1.283	1.167
SP-SK 26/16B-963	COILFORMER SK26/16 TYPE 3SEC	0.205	0.182	0.167	0.152
SP-SK 22/13A-996	COILFORMER SK22/13 TYPE 1	0.379	0.337	0.309	0.281
SP-SK 36/22B-976	COILFORMER SK36/22	0.362	0.322	0.295	0.268
SP-RM 6 1542-8B	COILFORMER RM6 8P	0.538	0.478	0.438	0.399
SP-RM 14-1074-12B	COILFORMER RM14 12P	1.376	1.223	1.121	1.019
HK-RM 6 1034	CLAMP FOR RM6 Long	0.083	0.074	0.068	0.061
HK-RM 14-1309	CLAMP FOR RM14 Long	0.337	0.300	0.275	0.250
Indicator Lights		1-4	5-24	25-99	100+
N-703 220V RED	Indicator Light 12 mm Neon 220V	0.644	0.548	0.501	0.477
N-705L 12V RED	Indicator Light 10 mm LED, 12V	0.703	0.599	0.547	0.521
N-705L 12V GREEN	Indicator Light 10 mm LED, 12V	0.739	0.629	0.575	0.547
N-802 220V RED	Indicator Light 12x12 Neon 220V	0.482	0.411	0.375	0.357
N-802 220V GREEN	Indicator Light 12x12 Neon 220V	0.476	0.405	0.370	0.352
N-802 220V ORANGE	Indicator Light 12x12 Neon 220V	0.476	0.405	0.370	0.352
N-802P 12V RED	Indicator Light 12x12 mm, 12V	0.476	0.405	0.370	0.352
N-802P 12V ORANGE	Indicator Light 12x12 mm, 12V	0.476	0.405	0.370	0.352
N-804 220V RED	Indicator Light 14 mm Neon 220V	0.471	0.401	0.367	0.349
N-804 220V ORANGE	Indicator Light 14 mm Neon 220V	0.471	0.401	0.367	0.349
N-804 220V O.GREEN	Indicator Light 14 mm Neon 220V	0.619	0.527	0.482	0.459
N-804 220V N GREEN	Indicator Light 14 mm Neon 220V	0.504	0.430	0.392	0.374
N-804P 12V RED	Indicator Light 14 mm, 12V	0.492	0.419	0.383	0.364
N-804P 12V GREEN	Indicator Light 14 mm, 12V	0.492	0.419	0.382	0.364
N-809 220V RED	Indicator Light 19 mm Neon 220V	0.547	0.466	0.426	0.405
N-809P-12V RED	Indicator Light 19 mm, 12V	0.551	0.469	0.429	0.408
N-810-220V RED	Indicator Light 20 mm Neon 220V	0.567	0.483	0.441	0.420
N-810P-12V RED	Indicator Light 20 mm, 12V	0.515	0.438	0.400	0.381
N-813-12V RED	Indicator Light 23x23 mm, 12V	0.666	0.567	0.518	0.493
N-813-220V RED	Indicator Light 23x23 mm Neon 220V	0.690	0.588	0.537	0.511
N-814 220V RED	Indicator Light 9 mm Neon 220V	0.490	0.418	0.381	0.363
N-814 220V O. GREEN	Indicator Light 9 mm Neon 220V	0.632	0.538	0.492	0.468
N-814 220V N GREEN	Indicator Light 9 mm Neon 220V	0.470	0.400	0.365	0.348
N-814 220V ORANGE	Indicator Light 9 mm Neon 220V	0.482	0.410	0.375	0.357
N-814L-12V RED	Indicator Light 9 mm LED, 12V	0.405	0.345	0.315	0.300
N-814L-12V GREEN	Indicator Light 9 mm LED, 12V	0.438	0.373	0.341	0.325
N-814L-12V ORANGE	Indicator Light 9 mm LED, 12V	0.439	0.374	0.341	0.325
N-814P-12V RED	Indicator Light 9 mm, 12V	0.426	0.363	0.331	0.316
N-814P-12V GREEN	Indicator Light 9 mm, 12V	0.426	0.363	0.331	0.316
N-814P-12V ORANGE	Indicator Light 9 mm, 12V	0.481	0.410	0.374	0.357
N-815 220V RED	Indicator Light 9x9 mm Neon 220V	0.478	0.408	0.372	0.354
N-815 220V GREEN	Indicator Light 9x9 mm Neon 220V	0.508	0.432	0.395	0.376
N-815 220V ORANGE	Indicator Light 9x9 mm Neon 220V	0.467	0.398	0.363	0.346
N-815L-12V RED	Indicator Light 9x9 mm LED, 12V	0.483	0.412	0.376	0.358
N-815L-12V GREEN	Indicator Light 9x9 mm LED, 12V	0.483	0.412	0.376	0.358
N-815L-12V ORANGE	Indicator Light 9x9 mm LED, 12V	0.476	0.405	0.370	0.353
N-815P-12V RED	Indicator Light 9x9 mm, 12V	0.497	0.423	0.386	0.368
N-815P-12V GREEN	Indicator Light 9x9 mm, 12V	0.497	0.423	0.386	0.368
N-815P-12V ORANGE	Indicator Light 9x9 mm, 12V	0.497	0.423	0.386	0.368

Buzzers and Microphones

PB1221P
PB1224M-12-H
PB12N24M-05
PB3112

1.1-1.7V, 2048Hz, Ø12mm
8-16V, 2400Hz, 12,6x12,6mm, SMD
4-7V, 2400Hz, 12,6x12,6mm, SMD
30Vp-p, 500-10KHz, Ø35mm

1-4	5-24	25-99	100+	500+
0.160	0.144	0.133	0.123	0.114
0.677	0.610	0.561	0.523	0.484
1.001	0.901	0.829	0.772	0.715
0.333	0.310	0.288	0.268	0.250



PB1221P

PF21N30P
PFD21N30P
PK12N40PA
PK12N40PE
PK20N38P
PK21N30P
PK27A35W
PL21N30P
PLD21N30P
PLD27N25P
PMZ12490BD0
PMZ15580BD0
PMZ20380B10
PMZ31130TD0
PMZ35260BS
PMZ41070B00
PMZ52080BJ0
PS520
PS523A
PS583
PT1240P
PT1250W
PT1540W
PT1540P
PT2030P
PT2038W
PT2040P
PT2130FP
PT3110P
PT3110W
PT4176P
PMU-8050WA
ECM30B
ECM60PC
TH310

3-30VDC, 3kHz, Ø24mm
3-30VDC, 3kHz, Ø24mm
3-15VDC, 4.1kHz, Ø 13.8mm
3-15VDC, 4.1kHz, Ø 13.8mm
3-28VDC, 3.8kHz, Ø23.4mm
1.5-30VDC, 3kHz, Ø24mm
3-24VDC, 3.5kHz, Ø30mm
3-28VDC, 3kHz, Ø24mm
3-30VDC, 3kHz, Ø24mm
3-28VDC, 2.5kHz, Ø30mm
4.9kHz, 17nF, Ø12mm
5.8kHz, 10nF, Ø15mm
3.8kHz, 25nF, Ø20mm
1.3kHz, 43nF, Ø31mm
2.6kHz, 30nF, Ø35mm
0.7kHz, 70nF, Ø41mm
2.8kHz, 35nF, Ø50mm
12VDC, 2.5-3.5kHz, Ø37mm, constant tone
12VDC, 1.5-4kHz, Ø37mm, fast tone
6-14VDC, 1.5-3.5kHz, Ø50mm
20Vp-p, 4.1kHz, Ø13.8mm
25Vp-p, 4.8kHz, Ø13.8mm
25Vp-p, 4kHz, Ø17mm
25Vp-p, 4kHz, Ø17mm
25Vp-p, 2.5kHz, Ø23mm
30Vp-p, 3.8kHz, Ø24mm
30Vp-p, 4kHz, Ø22mm
1.5-30VDC, 3.5kHz, Ø24mm
30Vp-p, 0.6-1.6kHz, Ø34.5mm, telephone ringer
30Vp-p, 0.6-1.6kHz, Ø34.5mm, telephone ringer
30Vp-p, telephone ringer, Ø44mm
Uni-directional Condenser Microphone -47dB 8mm
Microphone Condenser -61dB 9.83mm
Microphone Condenser -64dB 9.83mm
Dynamic Transm./Receiver 150 Ohm Ø31mm

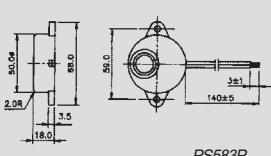
1-4	5-24	25-99	100+	500+
1.306	1.211	1.127	1.053	
1.598	1.482	1.379	1.288	
0.888	0.823	0.766	0.716	
0.792	0.735	0.683	0.639	
0.971	0.901	0.838	0.783	
1.024	0.950	0.884	0.826	
0.620	0.575	0.535	0.500	
1.309	1.214	1.130	1.056	
1.592	1.477	1.374	1.284	
1.838	1.704	1.586	1.482	
0.200	0.180	0.165	0.154	0.143
0.123	0.111	0.102	0.095	0.088
0.137	0.123	0.114	0.106	0.098
0.237	0.213	0.196	0.183	0.169
0.271	0.244	0.225	0.209	0.194
0.505	0.470	0.436	0.406	0.379
0.366	0.330	0.303	0.282	0.262
4.174	3.871	3.602	3.366	
4.064	3.769	3.507	3.278	
2.790	2.587	2.407	2.250	
0.630	0.585	0.544	0.508	
0.457	0.426	0.395	0.368	0.344
0.427	0.398	0.369	0.343	0.321
0.249	0.224	0.206	0.192	0.178
0.535	0.499	0.463	0.431	
0.444	0.414	0.384	0.358	0.334
0.360	0.335	0.311	0.289	0.270
0.501	0.467	0.433	0.403	0.377
0.615	0.573	0.532	0.495	0.462
0.418	0.389	0.361	0.336	0.314
0.901	0.836	0.778	0.727	
0.609	0.565	0.525	0.491	
0.311	0.280	0.258	0.240	0.222
0.298	0.269	0.247	0.230	0.213
1.079	1.001	0.931	0.870	



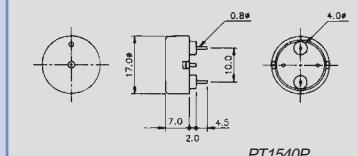
PS520



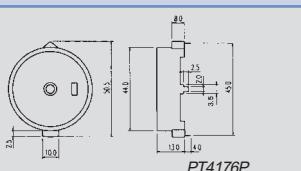
PT3110W



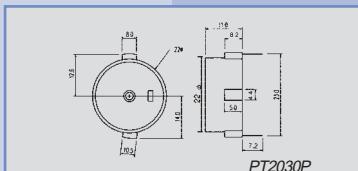
PS583P



PT1540P



PT4176P



PT2030P

Crystals

		1-9	10-99	100-999	1000+
QCT32768 (2x6)	crystal Fund 32.768kHz 2X6 mm 20ppm 12.5pF -20+70°C	0.115	0.095	0.087	0.074
QCT32768 (3x8)	crystal Fund 32.768kHz 3X8 mm 20ppm 12.5pF -20+70°C	0.059	0.049	0.045	0.038
QCT32768 (3x8) RoHS	crystal Fund 32.768kHz 3X8 mm 20ppm 12.5pF -20+70°C	0.078	0.065	0.060	0.051
Q1.8432 MHz HC-49U	crystal Fund 1.8432 MHz HC49U 20ppm 20pF -20+70°C	0.438	0.361	0.333	0.282
Q2.4576 MHz HC-49U	crystal Fund 2.4576 MHz HC49U 20ppm 20pF -20+70°C	0.317	0.262	0.241	0.204
Q3.2768 MHz HC-49U	crystal Fund 3.2768 MHz HC49U 20ppm 20pF -20+70°C	0.226	0.187	0.172	0.146
Q3.579545 MHz HC-49U	crystal Fund 3.5795 MHz HC49U 20ppm 20pF -20+70°C	0.203	0.167	0.154	0.131
Q3.579545 MHz HC-49S	crystal Fund 3.5795 MHz HC49S 20ppm 20pF -20+70°C	0.194	0.160	0.147	0.125
Q3.6864 MHz HC-49U	crystal Fund 3.6864 MHz HC49U 20ppm 20pF -20+70°C	0.203	0.167	0.154	0.131
Q3.6864 MHz HC-49S	crystal Fund 3.6864 MHz HC49S 20ppm 20pF -20+70°C	0.194	0.160	0.147	0.125
Q4.000 MHz HC-49U	crystal Fund 4.000 MHz HC49U 20ppm 20pF -20+70°C	0.179	0.148	0.137	0.116
Q4.000 MHz HC-49S	crystal Fund 4.000 MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q4.032 MHz HC-49U	crystal Fund 4.032 MHz HC49U 20ppm 20pF -20+70°C	0.226	0.187	0.172	0.146
Q4.194304 MHz HC-49U	crystal Fund 4.194304MHz HC49U 20ppm 20pF -20+70°C	0.179	0.148	0.137	0.116
Q4.433619 MHz HC-49U	crystal Fund 4.433619MHz HC49U 20ppm 20pF -20+70°C	0.218	0.180	0.166	0.141
Q4.9152 MHz HC-49U	crystal Fund 4.9152 MHz HC49U 20ppm 20pF -20+70°C	0.179	0.148	0.137	0.116
Q4.9152 MHz HC-49S	crystal Fund 4.9152 MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q5.000 MHz HC-49U	crystal Fund 5.000 MHz HC49U 20ppm 20pF -20+70°C	0.179	0.148	0.137	0.116
Q6.000 MHz HC-49U	crystal Fund 6.000 MHz HC49U 20ppm 20pF -20+70°C	0.179	0.148	0.137	0.116
Q6.000 MHz HC-49S	crystal Fund 6.000 MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q6.400 MHz HC-49U	crystal Fund 6.400 MHz HC49U 20ppm 20pF -20+70°C	0.179	0.148	0.137	0.116
Q6.400 MHz HC-49S	crystal Fund 6.400 MHz HC49S 20ppm 20pF -20+70°C	0.211	0.174	0.160	0.136
Q7.3728 MHz HC-49U	crystal Fund 7.3728 MHz HC49U 20ppm 20pF -20+70°C	0.179	0.148	0.137	0.116
Q7.3728 MHz HC-49S	crystal Fund 7.3728 MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q8.000 MHz HC-49U	crystal Fund 8.000 MHz HC49U 20ppm 20pF -20+70°C	0.179	0.148	0.137	0.116
Q8.000 MHz HC-49S	crystal Fund 8.000 MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q8.192 MHz HC-49U	crystal Fund 8.192 MHz HC49U 20ppm 20pF -20+70°C	0.179	0.148	0.137	0.116
Q8.867238 MHz HC-49U	crystal Fund 8.867238 MHz HC49U 20ppm 20pF -20+70°C	0.236	0.195	0.180	0.152
Q9.8304 MHz HC-49S	crystal Fund 9.8304 MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q10.000 MHz HC-49U	crystal Fund 10.000MHz HC49U 20ppm 20pF -20+70°C	0.179	0.148	0.137	0.116
Q10.000 MHz HC-49S	crystal Fund 10.000MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q10.245 MHz HC-49U	crystal Fund 10.245MHz HC49U 20ppm 20pF -20+70°C	0.179	0.148	0.137	0.116
Q10.245 MHz HC-49S	crystal Fund 10.245MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q11.0592 MHz HC-49U	crystal Fund 11.059MHz HC49U 20ppm 20pF -20+70°C	0.179	0.148	0.137	0.116
Q11.0592 MHz HC-49S	crystal Fund 11.059MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q12.000 MHz HC-49U	crystal Fund 12.000MHz HC49U 20ppm 20pF -20+70°C	0.179	0.148	0.137	0.116
Q12.000 MHz HC-49S	crystal Fund 12.000MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q13.560 MHz HC-49S	crystal Fund 13.560MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q14.7456 MHz HC-49S	crystal Fund 14.7456MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q16.000 MHz HC-49U	crystal Fund 16.000MHz HC49U 20ppm 20pF -20+70°C	0.179	0.148	0.137	0.116
Q16.000 MHz HC-49S	crystal Fund 16.000MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q18.432 MHz HC-49U	crystal Fund 18.432MHz HC49U 20ppm 20pF -20+70°C	0.179	0.148	0.137	0.116
Q18.432 MHz HC-49S	crystal Fund 18.432MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q19.6608 MHz HC-49U	crystal Fund 19.6608MHz HC49U 20ppm 20pF -20+70°C	0.179	0.148	0.137	0.116
Q20.000 MHz HC-49U	crystal Fund 20.000MHz HC49U 20ppm 20pF -20+70°C	0.179	0.148	0.137	0.116
Q20.000 MHz HC-49S	crystal Fund 20.000MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q24.000 MHz HC-49U	crystal Fund 24.000MHz HC49U 20ppm 20pF -20+70°C	0.179	0.148	0.137	0.116
Q24.000 MHz HC-49S	crystal Fund 24.000MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q25.000 MHz HC-49S	crystal Fund 25.000MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q26.45125 MHz HC-49S	crystal Fund 26.45125MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q30.000 MHz HC-49S	crystal Fund 30.000MHz HC49S 20ppm 20pF -20+70°C	0.177	0.146	0.135	0.114
Q40.000 MHz HC-49S	crystal 30vert. 40.000MHz HC49S 20ppm 20pF -20+70°C	0.177	0.146	0.135	0.114

Crystals SMD

		1-9	10-99	100-999	1000+
QCT32768 85 SMX SMD	crystal 32.768kHz SMX pack 20ppm 12.5pF -20+70°C	0.369	0.305	0.281	0.238
Q3.579545 MHz HC-49SM SMD	crystal Fund 3.579545 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q3.6864 MHz HC-49SM SMD	crystal Fund 3.6864 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q4.000 MHz HC-49SM SMD	crystal Fund 4.000 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q6.000 MHz HC-49SM SMD	crystal Fund 6.000 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q8.000 MHz HC-49SM SMD	crystal Fund 8.000 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q10.000 MHz HC-49SM SMD	crystal Fund 10.000 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q11.0592 MHz HC-49SM SMD	crystal Fund 11.059 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q12.000 MHz HC-49SM SMD	crystal Fund 12.000 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q13.560 MHz HC-49SM SMD	crystal Fund 13.560 MHz SMD 20ppm 20pF -40+85°C	0.241	0.199	0.183	0.155
Q16.000 MHz HC-49SM SMD	crystal Fund 16.000 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q17.734 MHz HC-49SM SMD	crystal Fund 17.734 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q18.432 MHz HC-49SM SMD	crystal Fund 18.432 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q20.000 MHz HC-49SM SMD	crystal Fund 20.000 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q22.1184 MHz HC-49SM SMD	crystal Fund 22.1184 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q25.000 MHz HC-49SM SMD	crystal Fund 25.000 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q16.000 MHz XG(6x3.5) SMD	crystal Fund 16.000 MHz SMD 10ppm 16pF -20+70°C	0.618	0.511	0.471	0.399
Q25.000 MHz XG(6x3.5) SMD	crystal Fund 25.000 MHz SMD 10ppm 20pF -20+70°C	0.618	0.511	0.471	0.399
Q27.000 MHz XG(6x3.5) SMD	crystal Fund 27.000 MHz SMD 20ppm 20pF -20+70°C	0.618	0.511	0.471	0.399
Q30.000 MHz XG(6x3.5) SMD	crystal Fund 30.000 MHz SMD 30ppm 20pF -20+70°C	0.618	0.511	0.471	0.399

Ceramic Resonators

		1-9	10-99	100-999	1000+
CR1000	Cer.r. 1MHz 0.5%/25C +/-0.3% -20+80°C	0.111	0.086	0.080	0.062
CRM0358	Cer.r. 3.58MHz 0.5%/25C, +/-0.3% -20+80°C	0.046	0.036	0.033	0.026
CRM0368	Cer.r. 3.68MHz 0.5%/25C, +/-0.3% -20+80°C	0.116	0.090	0.084	0.064

Ceramic Resonators

CRMX0358	Cer.r. 3.58MHz 0.5%/25C,+/-0.3% -20+80°C, 2x30pF	0.081	0.063	0.058	0.045
CRM0400	Cer.r. 4MHz 0.5%/25C,+/-0.3% -20+80°C	0.067	0.052	0.049	0.037
CRMX0400	Cer.r. 4MHz 0.5%/25C,+/-0.3% -20+80°C, 2x30pF	0.085	0.066	0.061	0.047
CRM0800	Cer.r. 8MHz 0.5%/25C,+/-0.3% -20+80°C	0.082	0.064	0.059	0.046
CRMX1200	Cer.r. 12MHz 0.5%/25C,+/-0.3% -20+80°C, 2x30pF	0.112	0.087	0.081	0.062
CRMX1600	Cer.r. 16MHz 0.5%/25C,+/-0.3% -20+80°C, 2x30pF	0.152	0.118	0.110	0.085

Ceramic Resonators SMD

CRM0400 SMD	Cer.r. 4MHz 0.5%/25C,+/-0.3% -20+80°C	0.176	0.137	0.127	0.098
CRMX0400 SMD	Cer.r. 4MHz 0.5%/25C,+/-0.3% -20+80°C, 2x30pF	0.176	0.137	0.127	0.098
CRMX0600 SMD	Cer.r. 6MHz 0.5%/25C,+/-0.3% -20+80°C, 2x30pF	0.208	0.162	0.150	0.115

SAW resonators and filters

SAW433.42 MHz T039	resonator SAW 1-port 433.42MHz +/-75KHz	0.361	0.281	0.261	0.200
SAW433.92 MHz T039	resonator SAW 1-port 433.92MHz +/-75KHz	0.282	0.219	0.204	0.157
SAW433.92 MHz SMD SM-2	resonator SAW 1-port 433.92MHz +/-75KHz SMD	0.702	0.579	0.534	0.453
SAW433.92 MHz SMD SM-3	resonator SAW 1-port 433.92MHz +/-75KHz SMD	0.702	0.579	0.534	0.453
SAW433.92 MHz T039 filter	filter SAW 3dB +/-0.3MHz 433.92MHz	1.044	0.862	0.795	0.673

Ceramic Filters

CF455F	Cer.filter 455KHz+1.5kHz BW 6dB/6kHz;50dB/12.5kHz	0.401	0.338	0.315	0.286
MSU455FA(LPU455B)	Cer.filter 455KHz+2kHz 3dB BW 10kHz	0.122	0.101	0.093	0.079
CF6.5MHz	Cer.filter 6.5MHz	0.138	0.114	0.105	0.089
CF10.7MHz	Cer.filter 10.7MHz	0.099	0.077	0.072	0.055

Ferrite Cores KASCHKE

E13/4 K2006	AL 850 f 25-300kHz Ae 12.4mm ² Br 0.2T	0.171	0.146	0.139	0.127
E16/5 K2006	AL 1050 f 25-300kHz Ae 20.1mm ² Br 0.2T	0.169	0.144	0.138	0.125
E16/5 m..L..0.1 K2006	AL 210 f 25-300kHz Ae 20.1mm ² Br 0.2T	0.219	0.186	0.178	0.162
E16/5 m..L..0.4 K2006	AL 100 f 25-300kHz Ae 20.1mm ² Br 0.2T	0.219	0.186	0.178	0.162
E20/6 (EF20/5.9) K2004	AL 1300 f 10-100kHz Ae 32mm ² Br 0.2T	0.163	0.139	0.133	0.121
E20/6 (EF20/5.9) K2006	AL 1350 f 25-300kHz Ae 32mm ² Br 0.2T	0.163	0.139	0.133	0.121
E20/6 (EF20/5.9) K4000	AL 2300 f 25-400kHz Ae 32mm ² Br 0.12T	0.261	0.222	0.213	0.193
E20/6 (EF20/5.9) m..I..0.2 K2006	AL 230 f 10-100kHz Ae 32mm ² Br 0.2T	0.236	0.201	0.192	0.175
E20/6 (EF20/5.9) m..I..0.5 K2004	AL 105 f 10-100kHz Ae 32mm ² Br 0.2T	0.206	0.175	0.168	0.152
E20/11(EF20/11) K2006	AL 2600 f 25-300kHz Ae 60mm ² Br 0.2T	0.419	0.357	0.341	0.310
E25/7 (EF25/7.5) K2006	AL 1900 f 25-300kHz Ae 52mm ² Br 0.2T	0.261	0.223	0.213	0.194
E25/7 (EF25/7.5) K4000	AL 3200 f 400kHz Ae 52mm ² Br 0.12T	0.330	0.281	0.269	0.244
E25/7m..L..0.2 K2006	AL 305 f 25-300kHz Ae 52mm ² Br 0.2T	0.300	0.255	0.244	0.222
E25/7m..L..0.5 K2004	AL 170 f 10-100kHz Ae 52mm ² Br 0.2T	0.300	0.255	0.244	0.222
E25/7m..L..0.5 K2006	AL 155 f 25-300kHz Ae 52mm ² Br 0.2T	0.300	0.255	0.244	0.222
E25/11 K2006	AL 2700 f 25-300kHz Ae 76.5mm ² Br 0.2T	0.301	0.256	0.245	0.223
E25/11(mL1) K2006	AL 150 f 25-300kHz Ae 76.5mm ² Br 0.2T	0.324	0.276	0.264	0.240
E25/11(mL..0.2) K2006	AL 245 f 25-300kHz Ae 76.5mm ² Br 0.2T	0.351	0.299	0.286	0.260
E25/11(mL..0.5) K2006	AL 220 f 25-300kHz Ae 76.5mm ² Br 0.2T	0.351	0.299	0.286	0.260
E30/7..3 (m..L..0.2) K2006	AL 285 f 25-300kHz Ae 60mm ² Br 0.2T	0.339	0.288	0.276	0.251
E30/7..3 (m..L..0.5) K2006	AL 150 f 25-300kHz Ae 60mm ² Br 0.2T	0.339	0.288	0.276	0.251
E30/7..3 K2006	AL 1900 f 25-300kHz Ae 60mm ² Br 0.2T	0.307	0.262	0.250	0.228
E30/11 K2006	AL 2800 f 25-300kHz Ae 91.5mm ² Br 0.2T	0.644	0.548	0.524	0.477
E32/9 (EF32/9.5) K2006	AL 2300 f 25-300kHz Ae 83mm ² Br 0.2T	0.630	0.537	0.513	0.467
E36/11.5 K2006	AL 3150 f 25-300kHz Ae 123mm ² Br 0.2T	0.816	0.696	0.665	0.605
E42/15 K2004	AL 3500 f 10-100kHz Ae 180mm ² Br 0.2T	0.971	0.827	0.791	0.719
E42/15 K2006	AL 3600 f 25-300kHz Ae 180mm ² Br 0.2T	0.971	0.827	0.791	0.719
E42/20 K2006	AL 5100 f 25-300kHz Ae 233mm ² Br 0.2T	1.042	0.888	0.849	0.772
E42/20 K2004	AL 5000 f 10-100kHz Ae 233mm ² Br 0.2T	1.261	1.074	1.027	0.934
E42/20m..L..1.5m K2004	AL 250 f 10-100kHz Ae 233mm ² Br 0.2T	1.132	0.964	0.922	0.839
E55/21 K2004	AL 5800 f 10-100kHz Ae 350mm ² Br 0.2T	2.289	2.025	1.937	1.760
E55/21 m..L..2m K2004	AL 290 f 10-100kHz Ae 350mm ² Br 0.2T	2.378	2.104	2.012	1.829
E55/21 K2006	AL 6100 f 25-300kHz Ae 350mm ² Br 0.2T	1.967	1.740	1.664	1.513
E55/21 m..L..2m K2006	AL 310 f 25-300kHz Ae 350mm ² Br 0.2T	2.146	1.898	1.816	1.650
E55/21 K2008	AL 6400 f 100-500kHz Ae 350mm ² Br 0.2T	1.967	1.740	1.664	1.513
E55/25 K2004	AL 5800 f 10-100kHz Ae 350mm ² Br 0.2T	2.429	2.148	2.055	1.868
E65/27 K2004	AL 7200 f 10-100kHz Ae 540mm ² Br 0.2T	5.185	4.587	4.387	3.989
E70/32 K2004	AL 8600 f 10-100kHz Ae 685mm ² Br 0.2T	6.068	5.437	5.243	4.854



Rxx



Exx

Ferrite Cores KASCHKE

		1-4	5-24	25-99	100+
E80/20 K2004	AL 4150 f 10-100kHz Ae 390mm ² Br 0.2T	5.562	4.984	4.806	4.450
E80/20 K2008	AL 4600 f 100-500kHz Ae 390mm ² Br 0.2T	4.888	4.380	4.223	3.910
E100/28 K2004	AL 5500 f 10-100kHz Ae 785 mm ² Br 0.2T	11.156	9.996	9.639	8.925
SK22/13 K2006	AL 3800 f 25-300kHz Ae 63 mm ² Br 0.2T	1.165	1.044	1.006	0.932
R6.3/3.8/2.5L K4000	AL 1000 Ae 3.04mm ²	0.099	0.084	0.078	0.071
R6.3/3.8/2.5L K10000	AL 2500 Ae 3.04mm ²	0.070	0.059	0.055	0.050
R8/4/3L K10000	AL 4150 Ae 5.73mm ²	0.166	0.142	0.135	0.123
R10/6/4L K10000	AL 4050 Ae 7.75mm ²	0.205	0.174	0.167	0.152
R10/6/4L K4000	AL 1600 Ae 7.75mm ²	0.147	0.125	0.120	0.109
R10/6/4L K2006	AL 850 Ae 7.75mm ²	0.217	0.185	0.177	0.161
R12.5/7.5/5 K4000	AL 2000 Ae 12.2mm ²	0.217	0.185	0.177	0.161
R16/9.6/6.3L K2004	AL 1200 Ae 19.7mm ²	0.377	0.321	0.307	0.279
R16/9.6/6.3L K2006	AL 1350 Ae 19.7mm ²	0.336	0.287	0.274	0.249
R16/9.6/6.3L K10000	AL 6400 Ae 19.7mm ²	0.361	0.308	0.294	0.268
R23/14/7L K4000	AL 2750 f 20-400kHz Ae 30.7mm ²	0.418	0.369	0.353	0.321
R23/14/7L K2006	AL 1450 f 20-300kHz Ae 30.7mm ²	0.435	0.385	0.368	0.335
R23/14/7L K6000	AL 4150 f 20-160kHz Ae 30.7mm ²	0.453	0.401	0.383	0.348
R25/15/10L K2004	AL 2000 f 10-100kHz Ae 48.7mm ²	0.526	0.466	0.445	0.405
R25/15/10L K2006	AL 2100 f 20-300kHz Ae 48.7mm ²	0.606	0.536	0.513	0.466
R31.5/19/12.5 K2004	AL 2500 f 10-100kHz Ae 76.3mm ²	1.117	0.988	0.945	0.859
R31.5/19/12.5 K2006	AL 2650 f 25-300kHz Ae 76.3mm ²	1.184	1.047	1.002	0.911
R34/20.5/12.5L K2004	AL 2500 f 10-100kHz Ae 82.5mm ²	1.422	1.258	1.203	1.094
R34/20.5/12.5L K4000	AL 5050 f 20-400kHz Ae 82.5mm ²	1.335	1.181	1.130	1.027
R34/20.5/12.5L K5500	AL 6050 f 10-1000kHz Ae 82.5mm ²	1.178	1.042	0.997	0.906
R40/24/16 L K2004	AL 3250 f 10-100kHz Ae 124.7mm ²	1.536	1.358	1.299	1.181
R40/24/16 L K2006	AL 3400 f 25-300kHz Ae 124.7mm ²	1.934	1.711	1.636	1.487
R40/24/16 L K4000	AL 6500 f 20-400kHz Ae 124.7mm ²	1.820	1.610	1.540	1.400
R80/40/15 L K2006	AL 4350 f 25-300kHz Ae 287.9mm ²	7.337	6.490	6.208	5.644
R80/40/15 L K4000	AL 8300 f 20-400kHz Ae 287.9mm ²	8.815	7.798	7.459	6.781

Impeder Cores for HF welding KASCHKE

		1-4	5-24	25-99	100+
HZ8/4/200GF K2006	Hollow fluted rod 200 mm D8/4	3.541	3.132	2.996	2.724
HZ8/3/200GF K2006	Hollow fluted rod 200 mm D8/3	4.197	3.713	3.552	3.229
HZ9/4/200G K2006	Impeder rod 200 mm D9/4	3.804	3.365	3.219	2.926
HZ10/3/200GF K2006	Hollow fluted rod 200 mm D10/d3	4.708	4.165	3.984	3.622
HZ11/3/200GF K2006	Hollow fluted rod 200 mm D11/d3	4.784	4.232	4.048	3.680
HZ12/4/200 GF K2006	Hollow fluted rod 200 mm D12/d4	6.328	5.598	5.355	4.868
HZ13/5/200GF K2006	Hollow fluted rod 200 mm D13/d5	6.743	5.965	5.705	5.187
HZ14/4/200GF K2006	Hollow fluted rod 200 mm D14/d4	7.308	6.464	6.183	5.621
HZ15/5/200GF K2006	Hollow fluted rod 200 mm D15/d5	9.040	7.997	7.649	6.954
HZ16/5/200GF K2006	Hollow fluted rod 200 mm D16/d5	8.852	7.831	7.490	6.809
HZ18/6/200GF K2006	Hollow fluted rod 200 mm D18/d6	9.530	8.430	8.064	7.331
HZ20/6/200GF K2006	Hollow fluted rod 200 mm D20/d6	14.933	13.210	12.635	11.487
HZ22/6/200GF K2006	Hollow fluted rod 200 mm D22/d6	16.822	14.881	14.234	12.940
HZ25/10/200GF K2006	Hollow fluted rod 200 mm D25/d10	18.239	16.135	15.433	14.030
HZ26/10/200GF K2006	Hollow fluted rod 200 mm D26/d10	22.756	20.130	19.255	17.505
HZ32/13/200GF K2006	Hollow fluted rod 200 mm D32/d13	26.703	23.622	22.595	20.541
HZ40/20/200GF K2006	Hollow fluted rod 200 mm D40/d20	37.236	32.940	31.508	28.643

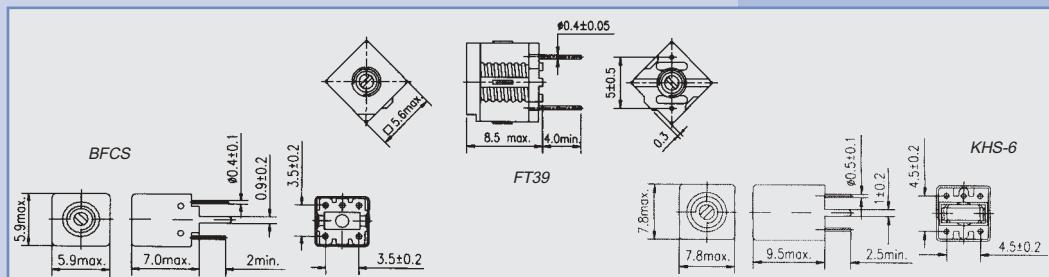
Pulse transformers KASCHKE

		1-4	5-24	25-99	100+
TRFSP-16/5 063.929 TNY263/4	SP-16/5; 2x 3,3V-6V; 0-3W; TNY263/4	1.102	0.975	0.932	0.848
TRFSP-16/5 063.930 TNY263/4	SP-16/5; 2x 6V-12V; 0-3W; TNY263/4	1.102	0.975	0.932	0.848
TRFSP-16/5 063.931 TNY265/6	SP-16/5; 2x 3,3V-6V; 4W; TNY265/6	1.102	0.975	0.932	0.848
TRFSP-16/5 063.932 TNY265/6	SP-16/5; 2x 6V-12V; 4W; TNY265/6	1.102	0.975	0.932	0.848
TRFSP-16/5 063.933 TNY267	SP-16/5; 2x 3,3V-6V; 6.5W; TNY267	1.102	0.975	0.932	0.848
TRFSP-16/5 063.934 TNY267	SP-16/5; 2x 6V-12V; 6.5W; TNY267	1.102	0.975	0.932	0.848
TRFSP-E30/7 066.929 TOP246	SP-E30/7; 14V/3,5A; 50W; TOP246	3.043	2.692	2.575	2.341
TRFSP-E30/7 066.930 TOP246	SP-E30/7; 24V/1,5A, 5V/2,5A; 50W; TOP246	3.043	2.692	2.575	2.341
TRFSP-E36/11 067.039 TOP247	SP-E36/11; 30V/3,2A; 96W; TOP247	6.559	5.802	5.550	5.045
TRFSP-E36/11 067.043 TOP247	SP-E36/11; 15V/4,5A; 96W; TOP247	5.509	4.874	4.662	4.238
TRFSP-E 36/11 067.050 TOP247	SP-E 36/11; 24V/4A; 96W; TOP247/8	5.772	5.106	4.884	4.440
TRFSP-20/6 094.940 TNY268	SP-20/6; 2x 3,3V-6V; 14-20W; TNY268	1.364	1.207	1.154	1.049
TRFSP-20/6 094.941 TNY268	SP-20/6; 2x 6V-12V; 14-20W; TNY268	1.364	1.207	1.154	1.049
TRFSP-E20/6 094.943 TNY268	SP-E20/6; 2x 18V-36V; 14-20W; TNY268	1.364	1.207	1.154	1.049
TRFSP-E20/6 094.944 TNY268	SP-E20/6; 24V/0,5A + 5V/1A; TNY268	1.364	1.207	1.154	1.049
TRFSP-EF25/7 095.951 TOP245	SP-EF25/7; 30V/1,5A; 45W; TOP245	2.545	2.251	2.153	1.958
TRFSP-EF25/7 095.952 TOP244	SP-EF25/7; 14V/2A; 30W; TOP244	2.545	2.251	2.153	1.958
TRFSP-EF25/7 095.953 TOP244	SP-EF25/7; 24V/0,9A, 5V/2,5A; 35W; TOP244	2.833	2.506	2.397	2.180
TRFSP-EF25/7 095.954 TOP244	SP-EF25/7; 12V/1,8A, 5V/2,5A; 35W	2.833	2.506	2.397	2.180
TRFSP-E13/6 096.901 LNK500/1	SP-E13/6; 3V-4V; 3W; LNK500/1	0.997	0.882	0.844	0.767
TRFSP-E13/6 096.902 LNK500/1	SP-E13/6; 5V-6V; 3W; LNK500/1	0.997	0.882	0.844	0.767
TRFSP-E13/6 096.903 LNK500/1	SP-E13/6; 11V-12V; 3W; LNK500/1	0.997	0.882	0.844	0.767
TRFSP-E13/6 096.904 LNK500/1	SP-E13/6; 14V-15V; 3W; LNK500/1	0.997	0.882	0.844	0.767



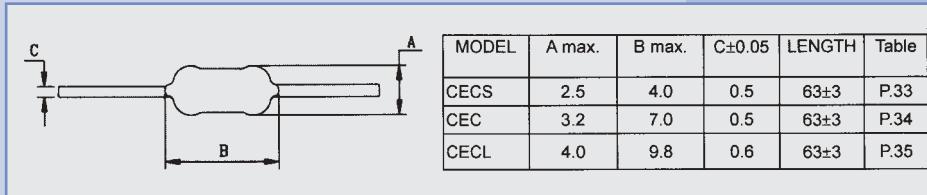
R. F. Coils

		1-9	10-99	100-499	500+
BFCS-5 0.33 uH 8218	0.33uH+/-3%min,Q30/25MHz	0.249	0.226	0.192	0.178
BFCS-5 0.47 uH 8219	0.47uH+/-3%min, Q30/25MHz	0.249	0.226	0.192	0.178
BFCS-5 1.0 uH 8220	1uH+/-3%min, Q30/25MHz	0.249	0.226	0.192	0.178
AF5 1mH/120pF 8221	1mH+/-3%min, 120pF+/-5%, Q35/25kHz	0.335	0.304	0.258	0.239
KHS-6 0.1 uH 1241	0.1uH+/-3%min, Q30/25MHz	0.191	0.173	0.147	0.136
KHS-6 0.18uH 1242	0.18uH+/-3%min,Q40/25MHz	0.191	0.173	0.147	0.136
KHS-6 1.0 uH 2593	1.0uH+/-6%min, Q50/25.2MHz	0.191	0.173	0.147	0.136
KHS-6 10 uH 1070	10uH+/-6%min, Q30/25.2MHz	0.169	0.153	0.130	0.121
KHS-6.27uH 1243	2.7uH+/-3%min, Q35/25MHz	0.194	0.176	0.149	0.138
KHS-7 0.33uH/12pF 8222	0.33uH+/-6%min, 12pF+/-10%, Q55/25MHz	0.194	0.176	0.149	0.138
FT39 1 1/2 - 845741	1 1/2 turns, for 433 MHz, Qmin 40/100MHz	0.080	0.072	0.062	0.057
FT39 2 1/2 - 863019	2 1/2 turns	0.080	0.072	0.062	0.057
FT39 3 1/2 - 863020	3 1/2 turns	0.080	0.072	0.062	0.057
OS45 150uH 0846	150uH+/-6%min, Q65/1MHz	0.154	0.140	0.119	0.110
OS45 470uH 1034	470uH+/-6%min, Q40/796kHz	0.154	0.140	0.119	0.110
OS45 1.0mH 1033	1mH+/-6%min, Q60/796kHz	0.155	0.141	0.120	0.111



Fixed Inductors

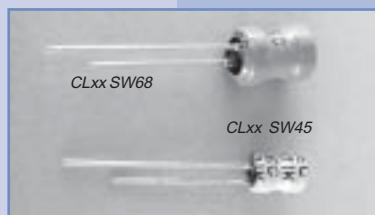
		1-9	10-99	100+	500+
CL1.0uH CEC	inductor 1.0uH 0.22 ohm 590mA 20%	0.043	0.039	0.033	0.031
CL2.2uH CEC	inductor 2.2uH 0.3 ohm 515mA 20%	0.044	0.040	0.034	0.031
CL0.1uH CECS	inductor 0.1uH 0.07 ohm 1050mA 20%	0.044	0.039	0.034	0.031
CL0.22uH CECS	inductor 0.22uH 0.095 ohm 680mA 20%	0.044	0.039	0.034	0.031
CL0.47uH CECS	inductor 0.47uH 0.20 ohm 520mA 20%	0.044	0.039	0.034	0.031
CL1.0uH CECS	inductor 1.0uH 0.29 ohm 425mA 20%	0.044	0.039	0.034	0.031
CL2.2uH CECS	inductor 2.2uH 0.39 ohm 340mA 10%	0.044	0.039	0.034	0.031
CL3.3uH CECS	inductor 3.3uH 0.64 ohm 280mA 10%	0.044	0.039	0.034	0.031
CL4.7uH CECS	inductor 4.7uH 0.94 ohm 215mA 10%	0.044	0.039	0.034	0.031
CL10uH CECS	inductor 10uH 1.88 ohm 170mA 10%	0.044	0.039	0.034	0.031
CL22uH CECS	inductor 22uH 2.97 ohm 125mA 10%	0.044	0.039	0.034	0.031
CL47uH CECS	inductor 47uH 6.16 ohm 85mA 10%	0.044	0.039	0.034	0.031
CL100uH CECS	inductor 100uH 15.44 ohm 50mA 10%	0.044	0.039	0.034	0.031
CL220uH CECS	inductor 220uH 23.19 ohm 40mA 10%	0.044	0.039	0.034	0.031



		1-9	10-99	100+	500+
CL0.68uH CECL	inductor 0.68uH 0.18 ohm 1000mA 20%	0.051	0.047	0.040	0.037
CL1.0uH CECL	inductor 1.0uH 0.18 ohm 800mA 20%	0.051	0.047	0.040	0.037
CL1.5uH CECL	inductor 1.5uH 0.22 ohm 700mA 20%	0.051	0.047	0.040	0.037
CL2.2uH CECL	inductor 2.2uH 0.27 ohm 660mA 20%	0.051	0.047	0.040	0.037
CL3.3uH CECL	inductor 3.3uH 0.34 ohm 600mA 10%	0.051	0.047	0.040	0.037
CL4.7uH CECL	inductor 4.7uH 0.38 ohm 550mA 10%	0.051	0.047	0.040	0.037
CL6.8uH CECL	inductor 6.8uH 0.45 ohm 500mA 10%	0.051	0.047	0.040	0.037
CL10uH CECL	inductor 10uH 0.6 ohm 450mA 10%	0.051	0.047	0.040	0.037
CL15uH CECL	inductor 15uH 0.74 ohm 340mA 10%	0.051	0.047	0.040	0.037
CL22uH CECL	inductor 22uH 0.85 ohm 310mA 10%	0.051	0.047	0.040	0.037
CL33uH CECL	inductor 33uH 1.0 ohm 280mA 10%	0.051	0.047	0.040	0.037
CL47uH CECL	inductor 47uH 2.1 ohm 200mA 10%	0.051	0.047	0.040	0.037
CL68uH CECL	inductor 68uH 2.5 ohm 190mA 10%	0.051	0.047	0.040	0.037
CL100uH CECL	inductor 100uH 3.4 ohm 160mA 10%	0.051	0.047	0.040	0.037
CL150uH CECL	inductor 150uH 5 ohm 130mA 10%	0.051	0.047	0.040	0.037
CL220uH CECL	inductor 220uH 6.2 ohm 120mA 10%	0.051	0.047	0.040	0.037
CL330uH CECL	inductor 330uH 7.7 ohm 110mA 10%	0.051	0.047	0.040	0.037

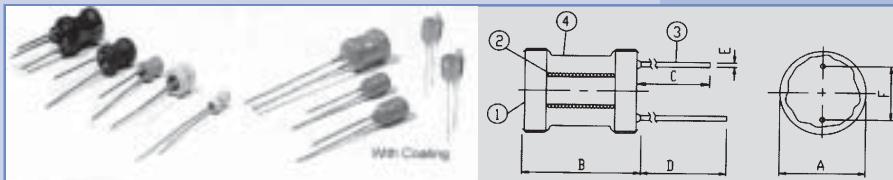
Fixed Inductors

		1-9	10-99	100+	500+
CL470uH CECL	inductor 470uH 11.9 ohm 90mA 10%	0.051	0.047	0.040	0.037
CL680uH CECL	inductor 680uH 15.0 ohm 80mA 10%	0.051	0.047	0.040	0.037
CL1.0mH CECL	inductor 1mH 21.0 ohm 60mA 10%	0.051	0.047	0.040	0.037
CL1.5mH CECL	inductor 1.5mH 45.0 ohm 45mA 10%	0.051	0.047	0.040	0.037



		1-9	10-99	100+	500+
CL1.0uH SW45	inductor 1.0uH 0.03 ohm 3200mA 10%	0.070	0.063	0.054	0.050
CL1.5uH SW45	inductor 1.5uH 0.0342 ohm 3000mA 10%	0.070	0.063	0.054	0.050
CL2.2uH SW45	inductor 2.2uH 0.0436 ohm 2500mA 10%	0.070	0.063	0.054	0.050
CL3.3uH SW45	inductor 3.3uH 0.0576 ohm 2100mA 10%	0.070	0.063	0.054	0.050
CL4.7uH SW45	inductor 4.7uH 0.0787 ohm 1700mA 10%	0.070	0.063	0.054	0.050
CL6.8uH SW45	inductor 6.8uH 0.097 ohm 1500mA 10%	0.070	0.063	0.054	0.050
CL10uH SW45	inductor 10uH 0.13 ohm 1300mA 10%	0.070	0.063	0.054	0.050
CL15uH SW45	inductor 15uH 0.18 ohm 1100mA 10%	0.070	0.063	0.054	0.050
CL22uH SW45	inductor 22uH 0.21 ohm 920mA 10%	0.070	0.063	0.054	0.050
CL33uH SW45	inductor 33uH 0.35 ohm 760mA 10%	0.070	0.063	0.054	0.050
CL47uH SW45	inductor 47uH 0.46 ohm 640mA 10%	0.070	0.063	0.054	0.050
CL68uH SW45	inductor 68uH 0.64 ohm 520mA 10%	0.070	0.063	0.054	0.050
CL100uH SW45	inductor 100uH 0.90 ohm 460mA 10%	0.070	0.063	0.054	0.050
CL150uH SW45	inductor 150uH 1.22 ohm 380mA 10%	0.070	0.063	0.054	0.050
CL220uH SW45	inductor 220uH 2.04 ohm 280mA 10%	0.070	0.063	0.054	0.050
CL330uH SW45	inductor 330uH 3.48 ohm 220mA 10%	0.070	0.063	0.054	0.050
CL470uH SW45	inductor 470uH 5.05 ohm 180mA 10%	0.070	0.063	0.054	0.050
CL680uH SW45	inductor 680uH 6.24 ohm 150mA 10%	0.070	0.063	0.054	0.050
CL1.0mh SW45	inductor 1mh 10.6 ohm 120mA 10%	0.070	0.063	0.054	0.050
CL1.5mh SW45	inductor 1.5mh 16.6 ohm 100mA 10%	0.070	0.063	0.054	0.050
CL2.2mh SW45	inductor 2.2mh 21.4 ohm 80mA 10%	0.070	0.063	0.054	0.050

		1-9	10-99	100+	500+
CL10uH SW68	inductor 10uH 0.086ohm 6200mA 10%	0.096	0.087	0.074	0.068
CL15uH SW68	inductor 15uH 0.053 ohm 1600mA 10%	0.096	0.087	0.074	0.068
CL22uH SW68	inductor 22uH 0.0667 ohm 1300mA 10%	0.096	0.087	0.074	0.068
CL33uH SW68	inductor 33uH 0.10 ohm 1000mA 10%	0.096	0.087	0.074	0.068
CL47uH SW68	inductor 47uH 0.14 ohm 880mA 10%	0.096	0.087	0.074	0.068
CL68uH SW68	inductor 68uH 0.20 ohm 770mA 10%	0.096	0.087	0.074	0.068
CL100uH SW68	inductor 100uH 0.26 ohm 640mA 10%	0.096	0.087	0.074	0.068
CL150uH SW68	inductor 150uH 0.38 ohm 530mA 10%	0.096	0.087	0.074	0.068
CL220uH SW68	inductor 220uH 0.60 ohm 430mA 10%	0.096	0.087	0.074	0.068
CL330uH SW68	inductor 330uH 0.88 ohm 350mA 10%	0.096	0.087	0.074	0.068
CL470uH SW68	inductor 470uH 1.20 ohm 300mA 10%	0.096	0.087	0.074	0.068
CL680uH SW68	inductor 680uH 1.80 ohm 240mA 10%	0.096	0.087	0.074	0.068
CL1.0mh SW68	inductor 1mh 2.52 ohm 200mA 10%	0.096	0.087	0.074	0.068

**DIMENSION (UNIT :mm)**

MODEL	A	B	C	D	E	F
SW45	4.2	7.0	10	15	0.5	1.8
SW68	6.2	9.5	10	15	0.6	3.0
CW8A	9	13	5	10	15	0.6

MATERIAL FOR CHOKE COILS

PRODUCT	MATERIAL
1.Core	Ferrite core
2. Wire	Polyurethane enameled copper wires
3. Lead wire	Soldered copper wires
4. Tube	Heat shrinkable tube, PVC or UL
5. Glue	Epoxy resin

Fixed Inductors

		1-9	10-99	100+	500+
CL1.5mH SW68	inductor 1.5mH 3.1 ohm 170mA 10%	0.096	0.087	0.074	0.068
CL2.2mH SW68	inductor 2.2mH 6.0 ohm 140mA 10%	0.096	0.087	0.074	0.068
CL3.3mH SW68	inductor 3.3mH 8.4 ohm 110mA 10%	0.096	0.087	0.074	0.068
CL4.7mH SW68	inductor 4.7mH 13 ohm 95mA 10%	0.096	0.087	0.074	0.068
CL6.8mH SW68	inductor 6.8mH 17 ohm 80mA 10%	0.096	0.087	0.074	0.068
CL10mH SW68	inductor 10mH 30 ohm 60mA 10%	0.096	0.087	0.074	0.068
CL15mH SW68	inductor 15mH 39 ohm 50mA 10%	0.096	0.087	0.074	0.068
CL22mH SW68	inductor 22mH 61 ohm 40mA 10%	0.096	0.087	0.074	0.068
CL33mH SW68	inductor 33mH 93 ohm 30mA 10%	0.096	0.087	0.074	0.068
CL47mH SW68	inductor 47mH 120 ohm 20mA 10%	0.096	0.087	0.074	0.068
CL1.0uH CW8A	inductor 1.0uH 0.01 ohm 7200mA 20%	0.140	0.127	0.108	0.100
CL3.3uH CW8A	inductor 3.3uH 0.012 ohm 5800mA 20%	0.140	0.127	0.108	0.100
CL4.7uH CW8A	inductor 4.7uH 0.015 ohm 5100mA 20%	0.140	0.127	0.108	0.100
CL10uH CW8A	inductor 10uH 0.027 ohm 3600mA 10%	0.140	0.127	0.108	0.100
CL33uH CW8A	inductor 33uH 0.07 ohm 2000mA 10%	0.140	0.127	0.108	0.100
CL47uH CW8A	inductor 47uH 0.086 ohm 1700mA 10%	0.140	0.127	0.108	0.100
CL100uH CW8A	inductor 100uH 0.18 ohm 1100mA 10%	0.140	0.127	0.108	0.100
CL220uH CW8A	inductor 220uH 0.41 ohm 780mA 10%	0.140	0.127	0.108	0.100
CL470uH CW8A	inductor 470uH 0.71 ohm 560mA 10%	0.140	0.127	0.108	0.100
CL1.5mH CW8A	inductor 1.5mH 2.2 ohm 320mA 10%	0.140	0.127	0.108	0.100
CL3.3mH CW8A	inductor 3.3mH 5 ohm 210mA 10%	0.140	0.127	0.108	0.100
CL100uH RBQE	inductor 100uH 0.06 ohm 3000mA 20%	1.004	0.889	0.773	
CL220uH RBQE	inductor 220uH 0.099 ohm 3000mA 20%	1.089	0.963	0.838	
CL330uH RBQE	inductor 330uH 0.144 ohm 1000mA 20%	1.075	0.951	0.827	

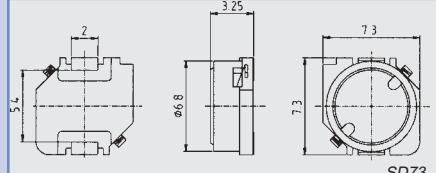


CLxx RBQE

		1-9	10-99	100-499	500+
CL1.0uH SD73	inductor 1.0uH 0.019 ohm 3120mA 20% SMD	0.513	0.465	0.396	0.366
CL2.2uH SD73	inductor 2.2uH 0.028 ohm 1200mA 20% SMD	0.513	0.465	0.396	0.366
CL10uH SD73	inductor 10uH 0.08 ohm 1340mA 20% SMD	0.513	0.465	0.396	0.366
CL22uH SD73	inductor 22uH 0.15 ohm 900mA 20% SMD	0.513	0.465	0.396	0.366
CL47uH SD73	inductor 47uH 0.35 ohm 600mA 20% SMD	0.513	0.465	0.396	0.366
CL10uH SD75	inductor 10uH 0.074 ohm 1130mA 20% SMD	0.513	0.465	0.396	0.366
CL22uH SD75	inductor 22uH 0.120 ohm 900mA 20% SMD	0.513	0.465	0.396	0.366
CL33uH SD75	inductor 33uH 0.150 ohm 750mA 20% SMD	0.513	0.465	0.396	0.366
CL47uH SD75	inductor 47uH 0.180 ohm 630mA 20% SMD	0.513	0.465	0.396	0.366
CL100uH SD75	inductor 100uH 0.310 ohm 420mA 20% SMD	0.513	0.465	0.396	0.366
CL150uH SD75	inductor 150uH 0.440 ohm 360mA 20% SMD	0.513	0.465	0.396	0.366
CL220uH SD75	inductor 220uH 0.700 ohm 280mA 20% SMD	0.513	0.465	0.396	0.366
CL330uH SD75	inductor 330uH 1.0 ohm 230mA 20% SMD	0.513	0.465	0.396	0.366



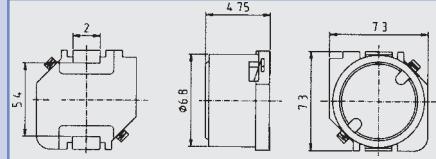
SD73



SD73



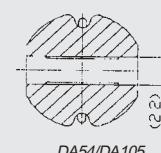
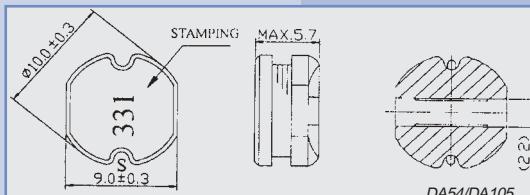
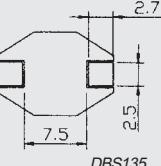
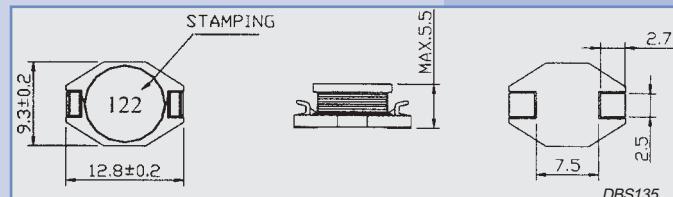
SD75



SD75

Fixed Inductors

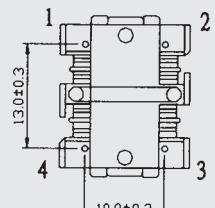
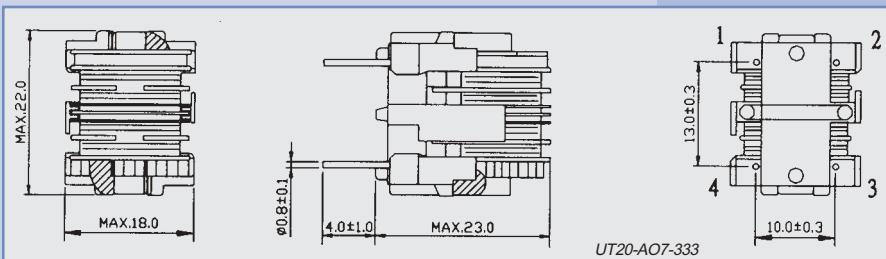
		1-9	10-99	100+	500+
CL15uH DBS135	inductor 15uH 0.046 ohm 3A 20%	0.444	0.403	0.342	0.317
CL68uH DBS135	inductor 68uH 0.2 ohm 1.5A 20%	0.444	0.403	0.342	0.317
CL1.2mH DBS135	inductor 1.2mH 4.4 ohm 320mA 20%	0.444	0.403	0.342	0.317
CL47uH DBS187	inductor 47uH 0.086 ohm 4.5A 20%	0.509	0.462	0.393	0.364
CL220uH DBS187	inductor 220uH 0.38 ohm 2.4A 20%	0.509	0.462	0.393	0.364
CL470uH DBS187	inductor 470uH 0.85 ohm 1.4A 20%	0.509	0.462	0.393	0.364
CL150uH DA54	inductor 150uH 0.895 ohm 350mA 10%	0.357	0.324	0.276	0.255
CL330uH DA105	inductor 330uH 1.0 ohm 600mA 10%	0.447	0.406	0.345	0.319



		1-9	10-99	100-499	500+
CL22nH CCSP0805 C 22N	inductor 22nH 0.19 ohm 700mA 2%	0.126	0.114	0.097	0.090
CL10nH CCSP0805 C 10NJ	inductor 10nH 0.10 ohm 600mA 5%	0.126	0.114	0.097	0.090
CL15nH CCSP0805 C 15NJ	inductor 15nH 0.17 ohm 600mA 5%	0.126	0.114	0.097	0.090
CL33nH CCSP0805 C 33NJ	inductor 33nH 0.27 ohm 500mA 5%	0.126	0.114	0.097	0.090
CL36nH CCSP0805 C 36NJ	inductor 36nH 0.27 ohm 600mA 5%	0.126	0.114	0.097	0.090
CL47nH CCSP0805 C 47NJ	inductor 47nH 0.31 ohm 600mA 5%	0.126	0.114	0.097	0.090
CL100nH CCSP0805 C R10J	inductor 100nH 0.46 ohm 400mA 5%	0.126	0.114	0.097	0.090
CL150nH CCSP0805 C R15J	inductor 150nH 0.56 ohm 400mA 5%	0.126	0.114	0.097	0.090
CL330nH CCSP0805 C R33J	inductor 330nH 1.4 ohm 300mA 5%	0.126	0.114	0.097	0.090
CL470nH CCSP0805 C R47J	inductor 470nH 1.76 ohm 250mA 5%	0.126	0.114	0.097	0.090
CL270nH CCSP0805 C R27J	inductor 270nH 1.0 ohm 350mA 5%	0.126	0.114	0.097	0.090
CL390nH CCSP0805 C R39J	inductor 390nH 1.5 ohm 290mA 5%	0.126	0.114	0.097	0.090
CL560nH CCSP0805 C R56J	inductor 560nH 1.9 ohm 230mA 5%	0.126	0.114	0.097	0.090
CL1.0uH CCSP0805 C 1R0J	inductor 1.0uH 6.9 ohm 100mA 5%	0.126	0.114	0.097	0.090

Line Filters

		1-9	10-99	100-499	500+
UT20-A07-333	LINE FILTER 2x33mH	0.629	0.570	0.485	0.449
EF25-H063	TRANSFORMER	1.465	1.329	1.130	1.046
SCHURTER 5500.0155.1	Line Filter 250VAC 1A 2x11mH,47nF,2x2.2nF	8.026	7.134	6.361	5.945

**Transformers ANG**

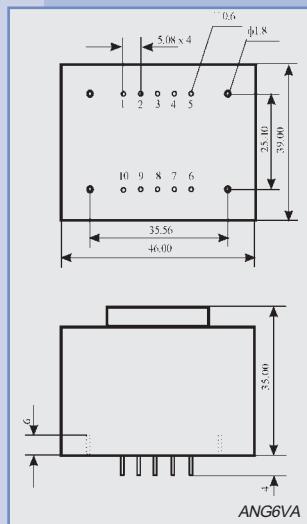
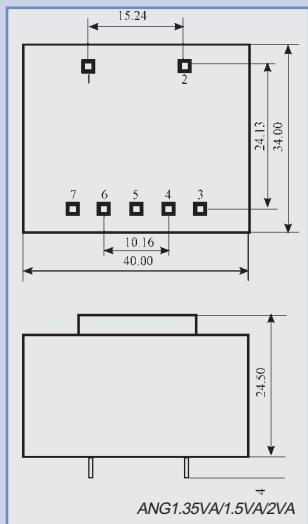
		1-49	50-99	100+
ANG1.3VA/6V	Transf. 220V - 6V/220mA, no load 7.5V	2.402	2.293	2.164
ANG1.3VA/7.5V	Transf. 220V - 7.5V/150mA, no load 10V	2.402	2.293	2.164
ANG1.3VA/9V	Transf. 220V - 9V/150mA, no load 11.6V	2.402	2.293	2.164
ANG1.3VA/12V	Transf. 220V - 12V/100mA, no load 15.4V	2.402	2.293	2.164
ANG1.3VA/13V	Transf. 220V - 13V/110mA, no load 18V	2.402	2.293	2.164
ANG1.3VA/16V	Transf. 220V - 16V/40mA, no load 18.2V	2.402	2.293	2.164
ANG1.3VA/18V	Transf. 220V - 18V/40mA, no load 20V	2.402	2.293	2.164
ANG1.3VA/8.5V+8.5V	Transf. 220V - 8.5V+8.5V/50mA,no load10.5V+10.5V	2.402	2.293	2.164

Transformers ANG

ANG1.3VA/2x12V
ANG1.5VA/15V
ANG2VA/9V
ANG2VA/18V
ANG2VA/18V+18V
ANG6VA/6V
ANG6VA/9V
ANG6VA/12V
ANG6VA/14V
ANG6VA/15V
ANG6VA/18V
ANG6VA/21V
ANG6VA/24V

Transf. 220V - 2x12V/Uo, no load 25.6V
Transf. 220V - 15V/100mA, no load 21.5V
Transf. 220V - 9V/220mA, no load 12.9V
Transf. 220V - 18V/110mA, no load 25.2V
Transf. 220V - 18V+18V/50mA,no load 22.5V+22.5V
Transf. 220V - 6V/1A, no load 7V
Transf. 220V - 9V/0.66A, no load 11V
Transf. 220V - 12V/0.5A, no load 14.5V
Transf. 220V - 14V/0.4A, no load 15.9V
Transf. 220V - 15V/0.4A, no load 18.1V
Transf. 220V - 18V/0.33A, no load 21.6V
Transf. 220V - 21V/0.28A, no load 25.2V
Transf. 220V - 24V/0.25A, no load 28.8V

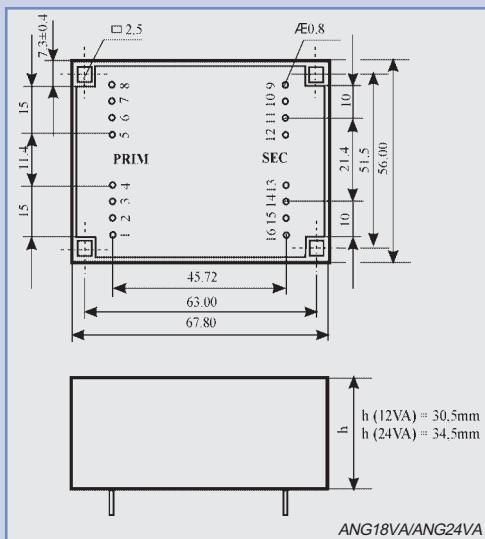
	1-49	50-99	100+
ANG1.3VA/2x12V	2.402	2.293	2.164
ANG1.5VA/15V	2.495	2.382	2.247
ANG2VA/9V	2.588	2.471	2.331
ANG2VA/18V	2.588	2.471	2.331
ANG2VA/18V+18V	2.588	2.471	2.331
ANG6VA/6V	3.518	3.360	3.170
ANG6VA/9V	3.518	3.360	3.170
ANG6VA/12V	3.518	3.360	3.170
ANG6VA/14V	3.518	3.360	3.170
ANG6VA/15V	3.518	3.360	3.170
ANG6VA/18V	3.518	3.360	3.170
ANG6VA/21V	3.518	3.360	3.170
ANG6VA/24V	3.518	3.360	3.170



ANG6VA/7V+7V
ANG6VA/9V+9V
ANG6VA/12V+12V
ANG6VA/15V+15V
ANG6VA/18V+18V
ANG6VA/24V+24V
ANG18VA/7.5V+7.5V
ANG18VA/9V+9V

Transf. 220V - 7V+7V/0.42A, no load 8.2V+8.2V
Transf. 220V - 9V+9V/0.33A, no load 11V+11V
Transf. 220V - 12V+12V/0.25A, no load 14V+14V
Transf. 220V - 15V+15V/0.2A, no load 18.1V+18.1V
Transf. 220V - 18V+18V/0.16A, no load 21.7V+21.7V
Transf. 220V - 24V+24V/0.12A, no load 28.8V+28.8V
Transf. 110+110V - 7.5V+7.5V/1.2A, no load 9.4V
Transf. 110+110V - 9V+9V/1A, no load 11.2V

	1-49	50-99	100+
ANG6VA/7V+7V	3.667	3.502	3.304
ANG6VA/9V+9V	3.667	3.502	3.304
ANG6VA/12V+12V	3.667	3.502	3.304
ANG6VA/15V+15V	3.667	3.502	3.304
ANG6VA/18V+18V	3.667	3.502	3.304
ANG6VA/24V+24V	3.667	3.502	3.304
ANG18VA/7.5V+7.5V	3.667	3.502	3.304
ANG18VA/9V+9V	8.731	8.338	7.866

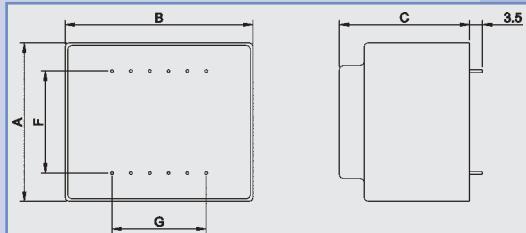


Transformers ANG

		1-49	50-99	100+
ANG18VA/10.5V+10.5V	Transf. 110+110V - 10.5V+10.5V/0.85A, no load 13V	8.731	8.338	7.866
ANG18VA/12V+12V	Transf. 110+110V - 12V+12V/0.75A, no load 15V	8.731	8.338	7.866
ANG18VA/15V+15V	Transf. 110+110V - 15V+15V/0.6A, no load 18.6V	8.731	8.338	7.866
ANG18VA/18V+18V	Transf. 110+110V - 18V+18V/0.5A, no load 22.6V	8.731	8.338	7.866
ANG18VA/21V+21V	Transf. 110+110V - 21V+21V/0.412A, no load 26.2V	8.731	8.338	7.866
ANG18VA/24V+24V	Transf. 110+110V - 24V+24V/0.38A, no load 30V	8.731	8.338	7.866
ANG18VA/30V+30V	Transf. 110+110V - 30V+30V/0.3A, no load 37V	8.731	8.338	7.866
ANG24VA/7.5V+7.5V	Transf. 110+110V - 7.5V+7.5V/1.6A, no load 9V	10.909	10.418	9.828
ANG24VA/9V+9V	Transf. 110+110V - 9V+9V/1.33A, no load 11V	10.909	10.418	9.828
ANG24VA/10.5V+10.5V	Transf. 110+110V - 10.5V+10.5V/1.14A, no load 12.5V	10.909	10.418	9.828
ANG24VA/12V+12V	Transf. 110+110V - 12V+12V/1A, no load 14.4V	10.909	10.418	9.828
ANG24VA/15V+15V	Transf. 110+110V - 15V+15V/0.8A, no load 18V	10.909	10.418	9.828
ANG24VA/18V+18V	Transf. 110+110V - 18V+18V/0.66A, no load 21.6V	10.909	10.418	9.828
ANG24VA/24V+24V	Transf. 110+110V - 24V+24V/0.5A, no load 30V	10.909	10.418	9.828
ANG24VA/30V+30V	Transf. 110+110V - 30V+30V/0.4A, no load 37V	10.909	10.418	9.828

Transformers BULTRAF

		1-49	50-99	100+
BULTRAF0.5VA/6V	Transformer 230V - 6V/83mA	2.184	2.085	1.967
BULTRAF0.5VA/6V+6V	Transformer 230V - 6V/42mA+6V/42mA	2.236	2.135	2.014
BULTRAF0.5VA/7.5V	Transformer 230V - 7.5V/66mA	2.184	2.085	1.967
BULTRAF0.5VA/9V	Transformer 230V - 9V/56mA	2.184	2.085	1.967
BULTRAF0.5VA/12V	Transformer 230V - 12V/42mA	2.184	2.085	1.967
BULTRAF0.5VA/18V	Transformer 230V - 18V/28mA	2.184	2.085	1.967
BULTRAF1.5VA/6V	Transformer 230V - 6V/250mA	2.184	2.085	1.967
BULTRAF1.5VA/6V+6V	Transformer 230V - 6V/125mA+6V/125mA	2.236	2.135	2.014
BULTRAF1.5VA/9V	Transformer 230V - 9V/167mA	2.184	2.085	1.967
BULTRAF1.5VA/9V+9V	Transformer 230V - 9V/83mA+9V/83mA	2.236	2.135	2.014
BULTRAF1.5VA/12V	Transformer 230V - 12V/125mA	2.184	2.085	1.967
BULTRAF1.5VA/18V	Transformer 230V - 18V/83mA	2.184	2.085	1.967
BULTRAF2.3VA/9V	Transformer 230V - 9V/256mA	2.589	2.473	2.333
BULTRAF2.3VA/12V	Transformer 230V - 12V/192mA	2.589	2.473	2.333
BULTRAF2.3VA/12V+12V	Transformer 230V - 12V/96mA+12V/96mA	2.641	2.522	2.379
BULTRAF2.3VA/18V	Transformer 230V - 18V/128mA	2.589	2.473	2.333
BULTRAF2.3VA/18V+18V	Transformer 230V - 18V/64mA+18V/64mA	2.641	2.522	2.379
BULTRAF4.5VA/9V	Transformer 230V - 9V/500mA	3.119	2.979	2.810
BULTRAF4.5VA/6V+6V	Transformer 230V - 6V/375mA+6V/375mA	3.171	3.029	2.857
BULTRAF4.5VA/12V+12V	Transformer 230V - 12V/188mA+12V/188mA	3.171	3.029	2.857
BULTRAF4.5VA/15V+15V	Transformer 230V - 15V/150mA+15V/150mA	3.171	3.029	2.857
BULTRAF6VA/9V	Transformer 230V - 9V/666mA	3.535	3.376	3.185
BULTRAF6VA/12V	Transformer 230V - 12V/500mA	3.535	3.376	3.185
BULTRAF6VA/15V	Transformer 230V - 15V/400mA	3.535	3.376	3.185
BULTRAF10VA/6V	Transformer 220V - 6V/1666mA	4.471	4.270	4.028
BULTRAF10VA/9V	Transformer 230V - 9V/1111mA	4.471	4.270	4.028
BULTRAF10VA/12V	Transformer 230V - 12V/833mA	4.471	4.270	4.028
BULTRAF10VA/12V+12V	Transformer 230V - 12V/416mA+12V/416mA	4.523	4.319	4.075
BULTRAF10VA/18V	Transformer 230V - 18V/556mA	4.471	4.270	4.028
BULTRAF10VA/24V	Transformer 230V - 24V/417mA	4.471	4.270	4.028



VA	A	B	C	F	G	Kg
0.5	26.7	31.7	15.2	20.0	4x5	0.04
1.5	26.7	31.7	21.8	20.0	4x5	0.08
4.5	34.9	40.8	28.1	25.0	4x5	0.15
6	36.8	43.8	32.3	27.5	5x5	0.20
10	42.1	49.9	34.6	27.5	5x5	0.28

Humidity&Temperature

Sensor FTS II

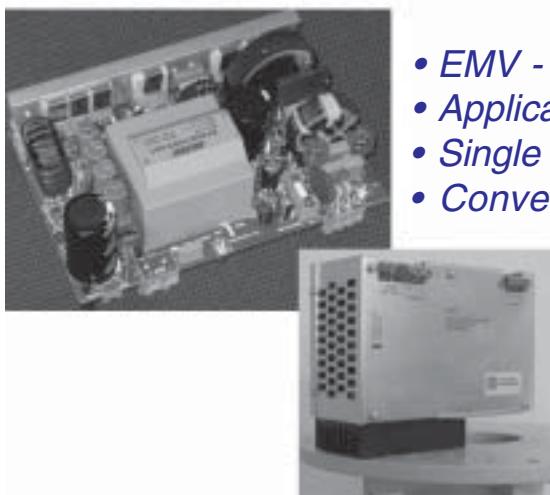


- ✓ Relative humidity and temperature sensors
- ✓ Analogue output
- ✓ Easy to mount
- ✓ Industrial disturbances protected
- ✓ Specific application – sauna control
- ✓ Possible wide application in Automation, White goods, Weather Stations, Medicine
- ✓ Ultra low consumption
- ✓ Excellent long-term stability
- ✓ Possibility to work at high temperature
- ✓ Flammability protected
- ✓ Possibility to be stamped the FTS box

General data:

- ◆ Temperature changing measuring accuracy: $\pm 0.3^{\circ}\text{C}$;
- ◆ Humidity changing measuring accuracy: $\pm 1.8\% \text{ RH}$;
- ◆ Temperature operating range: $-40 + 123.8^{\circ}\text{C}$;
- ◆ Humidity operating range: 0 to 100 %;
- ◆ Input voltage: 5 Vdc
- ◆ Box material: POCAN B 3235 – UL 94
V0PBT +30 % - Glass fibres added

Power supply - Medical PS240



- EMV - fair design;
- Applicable all over the world;
- Single output 240 Watts;
- Convectioncooling;
- EN60601-1, UL 60601-1;
- Galvanically separated;
- Active Power Factor correction (Class C - special for OR lights).

Input

Input voltage	Vin: 85 – 260Vac / 47...63 Hz
Efficiency	> 84 %
Input line protection	MOV – Varistor and fuse
Inrush current	< 30 A

Output

Output voltage	Factory set: 24,5V
Adjustable Vo	Yes, 22,5V to 29,5V
Output current - values in (0 ÷ +45)°C	Io: 10A≤24V; 8,6A≤28V; 8A≤30V
Ripple + Spikes, Measuring range 20 MHz	< 100mVpp
Short-circuit protection	Yes, by electronic current limiting
Static offset (Vinmin..Vinmax)	< 2 % Vonom; Io = constant
Static offset (no load operation..Full load)	< 2 % Vonom; Vin = constant
Temperature coefficient	<0,02%Vo/K
Fast response time (10... 100%lout); di/dt = 1A/μsec	< 1 msec
Variation with pulse load	<3%

Security:

In accordance to	EN60601-1; UL60601-1
In accordance to EMV	EN60601-1-2:2001

General data:

Operating temperature	0°C..+45°C(lamax=10A); 0°C..+60°(lamax=8,5A)- Cooling over surface area
Operating conditions	Temperature: 0°C to +70°C Atm. humidity: 30% to 75% Atm. pressure: 700hPa to 1060hPa
Transport and storage conditions	Temperature: -25°C to +85°C Atm. humidity: 30% to 100%
Size (overall height x width x length)	120 mm (145 mm with radiator) x 70 mm x 180 mm
Connection	Screw terminal for 1,5 – 4mm ² , Manufacturer Phönix-Contact, Type MKDS

Transformers

		1-49	50-99	100+
TRAF BT 17VA	Transformer 230V - 17VA	8.880	8.480	8.000
TRAF BT 50VA	Transformer 230V - 50VA	12.450	11.889	11.216
TRAF BT 70VA	Transformer 230V - 70VA	16.110	15.384	14.513
TRAF BT 100VA	Transformer 230V - 100VA	20.883	19.942	18.813

Current Transformers ANG

		1-49	50-99	100+
ANG50A/0.05A	Current Transformer 50A/0.05A	4.676	4.466	4.213
ANG100A/0.05A	Current Transformer 100A/0.05A	5.781	5.521	5.208
ANG150A/0.05A	Current Transformer 150A/0.05A	8.228	7.857	7.412
ANG200A/0.05A	Current Transformer 200A/0.05A	11.365	10.853	10.239

AC/DC converters ANG

		1-49	50-99	100+
ANGAC70/DC9/0.8	Input: AC 40-90V Output: DC 9V +/-5% 0.8A	16.881	15.450	14.306
ANGAC70/DC12/0.7	Input: AC 40-90V Output: DC 12V +/-5% 0.7A	16.881	15.450	14.306

Adapters ANG

		1-49	50-99	100+
ANGADAPTER 9V	Input: AC 220V Output: DC 9V / 0.6A	7.774	7.115	6.588
ANGADAPTER 12V	Input: AC 220V Output: DC 12V / 0.5A	7.774	7.115	6.588

Power supplies Sunny

		1-4	5-24	25-99	100+
SYS1196-0612-W2E	In:90-264VAC-Out:12VDC/0.5A, Prot.:Short,OVP,OCP	5.15	4.54	4.29	4.12
SYS1308-1505-W2E	In:90-264VAC-Out:5VDC/3A, Prot.:Short,OVP,OCP	9.18	8.08	7.64	7.35
SYS1308-1809-W2E	In:90-264VAC-Out:9VDC/2A, Prot.:Short,OVP,OCP	9.54	8.39	7.94	7.63
SYS1308-2412-W2E	In:90-264VAC-Out:12VDC/2A, Prot.:Short,OVP,OCP	8.51	7.49	7.08	6.81
SYS1308-2424-W2E	In:90-264VAC-Out:24VDC/1A, Prot.:Short,OVP,OCP	9.01	7.92	7.49	7.20
SYS1097-5012	In:90-264VAC-Out:12VDC/4.17A, Prot.:Short,OVP,OCP	17.95	16.28	15.82	15.21
SYS1097-5014	In:90-264VAC-Out:14VDC/3.57A, Prot.:Short,OVP,OCP	18.54	16.81	16.34	15.71
SYS1097-5024	In:90-264VAC-Out:24VDC/2.1A, Prot.:Short,OVP,OCP	19.46	17.65	17.15	16.49
SYS1183-6512	In:90-264VAC-Out:12VDC/5.42A, Prot.:Short,OVP,OCP	18.46	16.73	16.27	15.64
SYS1183-6519-UK	In:90-264VAC-Out:19VDC/3.42A, Prot.:Short,OVP,OCP	20.97	19.02	18.48	17.77
SYS1223-9024	In:90-264VAC-Out:24VDC/3.75A, Prot.:Short,OVP,OCP	50.83	46.09	44.80	43.07
SYD1109-6019	In:11-16VDC-Out:19VDC/3.15A, Prot.:Short,OVP,OCP	17.91	16.24	15.79	15.18
SYD1114-7515	In:11-28VDC-Out:15VDC/5A, Prot.:Short,OVP,OCP	29.08	26.37	25.63	24.64
PC AC CABLE 220V	PC / SYS1097 AC cable 220V	2.24	1.97	1.86	1.79
AC CABLE 3pin	3 pin AC cable 220V for SYS1223	2.41	2.12	2.00	1.93
POWER CABLE-8	Power cable 220V for SYS2011	1.67	1.47	1.39	1.34
AC blades SYS1183	AC blades for SYS1183	4.30	3.78	3.57	3.44
Jack 2.1x5.5 to 2.5x5.5	Connector reduction 2.1x5.5 Jack to 2.5x5.5 Plug	1.70	1.49	1.41	1.36

**Varistors**

		1-9	10-99	100-999	1000+
VAR 7K391 250V AC	var. 7mm390V/1mA Uacmax250V/Udcmax320V	0.063	0.051	0.047	0.045
VAR10K391 250V AC	var. 10mm390V/1mA Uacmax250V/Udcmax320V	0.108	0.087	0.080	0.077
VAR10K431 275V AC	var. 10mm430V Uacmax275V	0.128	0.103	0.095	0.091
VAR14K391 250V AC	var. 14mm390V/1mA Uacmax250V/Udcmax320V	0.146	0.118	0.109	0.104
VAR20K391 250V AC	var. 20mm390V/1mA Uacmax250V/Udcmax320V	0.314	0.253	0.233	0.223

Resistors**Resistors 0.125W 5% Carbon Film**

									1-10	10-99	100-499	500-4999	5000+
RW125CF 1.0R-1.0M									0.0385	0.0077	0.0039	0.0030	0.0026
RW125CF 1.5M-4.7M									0.0593	0.0119	0.0060	0.0046	0.0040
RW125CF 6.8M-10M									0.0744	0.0149	0.0079	0.0057	0.0050
1.0R	1.2R	1.5R	1.8R	2.2R	2.7R	3.3R	3.9R	4.7R	5.6R	6.8R	8.2R		
10R	12R	15R	18R	22R	27R	33R	39R	47R	56R	68R	75R	82R	
100R	120R	150R	180R	220R	270R	330R	390R	470R	560R	680R	820R		
1.0K	1.2K	1.5K	1.8K	2.0K	2.2K	2.7K	3.3K	3.9K	4.7K	5.1K	5.6K	6.8K	8.2K
10K	12K	15K	18K	20K	22K	27K	33K	39K	47K	51K	56K	68K	82K
100K	120K	150K	160K	180K	220K	270K	330K	360K	390K	470K	560K	680K	820K
1.0M		1.5M			2.2M		3.3M		4.7M		6.8M		
10M													

Temp. coefficient: +- 300ppm/C go 10R, +-450ppm/C 12R-82K, 0 ~ -700ppm/C 100K - 1M, 0 ~ -1500ppm/C 1.5M-10M

Resistors 0.25W 5% Carbon Film

															1-10	10-99	100-499	500-4999	5000+				
RW25CF 1.0R-10M															0.0431	0.0086	0.0043	0.0033	0.0029				
1.0R	1.1R	1.2R	1.3R	1.5R	1.6R	1.8R	2.0R	2.2R	2.4R	2.7R	3.0R	3.3R	3.6R	3.9R	4.3R	4.7R	5.1R	5.6R	6.2R	6.8R	7.5R	8.2R	9.1R
10R	11R	12R	13R	15R	16R	18R	20R	22R	24R	27R	30R	33R	36R	39R	43R	47R	51R	56R	62R	68R	75R	82R	91R
100R	110R	120R	130R	150R	160R	180R	200R	220R	240R	270R	300R	330R	360R	390R	430R	470R	510R	560R	620R	680R	750R	820R	910R
1.0K	1.1K	1.2K	1.3K	1.5K	1.6K	1.8K	2.0K	2.2K	2.4K	2.7K	3.0K	3.3K	3.6K	3.9K	4.3K	4.7K	5.1K	5.6K	6.2K	6.8K	7.5K	8.2K	9.1K
10K	11K	12K	13K	15K	16K	18K	20K	22K	24K	27K	30K	33K	36K	39K	43K	47K	51K	56K	62K	68K	75K	82K	91K
100K	110K	120K	130K	150K	160K	180K	200K	220K	240K	270K	300K	330K	360K	390K	430K	470K	510K	560K	620K	680K	750K	820K	910K
1.0M	1.1M	1.2M	1.3M	1.5M	1.6M	1.8M	2.0M	2.2M	2.4M	2.7M	3.0M	3.3M	3.6M	3.9M	4.3M	4.7M	5.1M	5.6M	6.2M	6.8M	7.5M	8.2M	9.1M
10M																							

Temp. coefficient: +- 300ppm/C go 10R, +-450ppm/C 11R-91K, 0 ~ -700ppm/C 100K - 1M, 0 ~ -1500ppm/C 1.1M-10M

Resistors 0.25W "FUSIBLE"

															1-10	10-99	100-499	500-4999	5000+
RW25FUS 1.0R-22R															0.0321	0.0155	0.0131	0.0118	0.0107
1.0R	2.2R	4.7R	10R	22R															

Temp. coefficient: +- 350 ppm/C

Resistors 0.25W 1% Metal Film

															1-10	10-99	100-499	500-4999	5000+				
RW25MF 1% 1.0R-10M															0.0584	0.0117	0.0059	0.0045	0.0039				
1.0R	1.2R	1.5R	1.6R		2.2R	2.4R		3.3R		4.7R			6.2R	6.8R	7.5R	8.2R							
10R		15R		20R	22R	24R	27R	33R	39R	47R	51R	56R	68R	75R	82R								
100R	120R	130R	150R	160R	180R	200R	220R	270R	300R	330R	390R	430R	470R	510R	560R	620R	680R	750R	910R				
1.0K	1.1K	1.2K		1.5K	1.8K	2.0K	2.2K	2.4K	2.7K	3.0K	3.3K	3.6K	3.9K	4.3K	4.7K	5.1K	5.6K	6.2K	6.8K	7.5K	8.2K		
10K	11K	12K		15K	16K	18K	20K	22K	27K	33K	36K	39K		47K	51K	56K	62K	68K		82K	91K		
100K		130K	150K		180K	200K	220K	270K	330K	390K	470K	560K		680K									
1.0M	1.1M	1.2M		1.5M	1.8M		2.2M		3.3M		4.7M		5.6M		6.8M								
10M																							

Resistors 0.6W 1% Metal Film

												1-10	10-99	100-499	500-4999	5000+
RW6MF 1% 1.0R-4.7R												0.0722	0.0253	0.0188	0.0166	0.0144
RW6MF 1% 5.1R-9.1R												0.0580	0.0203	0.0151	0.0133	0.0116
RW6MF 1% 10R-1.0M												0.0294	0.0103	0.0076	0.0068	0.0059
1.0R	1.2R	1.5R	1.8R	2.2R	2.7R	3.3R	3.9R	4.7R	5.1R	5.6R		6.8R		8.2R		
10R	11R	12R	13R	15R	16R	18R	20R	22R	24R	27R	30R	33R	36R	39R	43R	47R
100R	110R	120R	130R	150R	160R	180R	200R	220R	240R	270R	300R	330R	360R	390R	430R	470R
1.0K	1.1K	1.2K	1.3K	1.5K	1.6K	1.8K	2.0K	2.2K	2.4K	2.7K	3.0K	3.3K	3.6K	3.9K	4.3K	4.7K
10K	11K	12K	13K	15K	16K	18K	20K	22K	24K	27K	30K	33K	36K	39K	43K	47K
100K	110K	120K	130K	150K	160K	180K	200K	220K	240K	270K	300K	330K	360K	390K	430K	470K
1.0M																

Temp. coefficient: 50ppm/C

Resistors 0.6W 5% Metal Film

												1-10	10-99	100-499	500-4999	5000+
RW6MF 1.0R-1.0M												0.0259	0.0091	0.0067	0.0059	0.0052
1.0R	1.2R	1.5R	1.8R	2.2R	2.7R	3.3R	3.9R	4.7R	5.1R	5.6R		6.8R	7.5R	8.2R		
10R	12R	15R	18R	22R	27R	33R	39R	47R		56R		68R		82R		
100R	120R	130R	150R	160R	180R	200R	220R	270R	330R	390R	470R	510R	560R		680R	820R
1.0K	1.2K	1.5K	1.8K	2.2K	2.7K	3.0K	3.3K	3.9K	4.7K		5.6K		6.8K	7.5K	8.2K	
10K	12K	13K	15K	18K	22K	27K	33K	39K	47K	51K	56K		68K		82K	
100K	120K	150K	180K	220K	270K	330K	390K	470K		560K		680K		820K		
1.0M																

Temp. coefficient: 200ppm/C

Resistors 1W 5% Carbon Film

												1-4	5-24	25-99	100-499	500+
R1WCF 1.0R-330K												0.0438	0.0204	0.0178	0.0168	0.0146
1.0R	1.1R	1.2R	1.5R	1.8R	2.2R	2.7R	3.3R	3.9R	4.7R		5.6R		6.8R		8.2R	
10R	12R	15R	18R	22R	27R	33R	39R	47R		56R		68R		82R	91R	
100R	120R	150R	180R	220R	270R	330R	390R	470R		560R		680R		820R		
1.0K	1.2K	1.5K	1.8K	2.2K	2.7K	3.0K	3.3K	3.9K	4.7K		5.6K		6.8K	7.5K	8.2K	
10K	12K	15K	18K	22K	27K	33K	39K	47K		56K		68K		82K		
100K	120K	150K	180K	220K	270K	330K										

Temp. coefficient: +- 300ppm/C go 10R, +-450ppm/C 12R-82K, 0 ~ -700ppm/C 100K - 330K

Resistors 2W 5% Carbon Film

												1-4	5-24	25-99	100-499	500+
R2WCF 1.0R-330K												0.0613	0.0286	0.0249	0.0235	0.0204
1.0R	1.2R	1.5R	1.8R	2.0R	2.2R	2.7R	3.3R	3.9R	4.7R		5.6R		6.8R		8.2R	
10R	12R	15R	18R	22R	27R	33R	39R	47R		56R		68R		82R		
100R	120R	150R	180R	220R	270R	330R	390R	470R		560R		680R		820R		
1.0K	1.2K	1.5K	1.8K	2.2K	2.7K	3.3K	3.9K	4.7K		5.6K		6.8K		8.2K		
10K		15K		22K		33K	39K	47K		56K		68K				
100K		150K		220K		330K										

Temp. coefficient: +- 300ppm/C to 10R, +-450ppm/C 12R-68K, 700ppm/C 100K-330K

Resistors 1W 5% Metal Oxide											1-4	5-24	25-99	100-499	500+
R1WMO 0.27R; 0.33R; 0.47R; 0.68R											0.0481	0.0224	0.0196	0.0184	0.0160
0.27R	0.33R	0.47R	0.68R												
Temp. coefficient: +-350ppm/C															
Resistors 2W 5% Metal Oxide											1-4	5-24	25-99	100-499	500+
R2WMO 0.33R; 0.47R; 0.68R											0.0738	0.0344	0.0300	0.0283	0.0246
0.33R	0.47R	0.68R													
Temp. coefficient: +-400ppm/C															
Resistors 1W 5% Wire wound											1-4	5-24	25-99	100-499	500+
R1W KNP 0.1R-1.0R											0.0977	0.0684	0.0596	0.0562	0.0488
0.1R	0.15R	0.22R	0.33R	0.47R	0.68R	1R									
Temp. coefficient: +-350ppm/C															
Resistors 3W 5% Wire wound											1-4	5-24	25-99	100-499	500+
R3W KNP 1.0R; 27R; 150R											0.1425	0.0997	0.0869	0.0819	0.0712
1.0R	4.7R	27R	150R												
Temp. coefficient: +-400ppm/C															
Resistors 5W 5% Cement - wire wound up to 47R, from 56R Cement-layered type											1-4	5-24	25-99	100-499	500+
R5WCEM 0.10R-47R; 56R-22K											0.1095	0.0833	0.0806	0.0752	0.0672
0.10R	0.12R	0.15R	0.18R	0.22R	0.27R	0.33R	0.39R	0.47R	0.56R	0.68R	0.82R				
1.0R	1.2R	1.5R	1.8R	2.0R	2.2R	2.7R	3.3R	3.9R	4.7R	5.6R	6.8R	8.2R			
10R	12R	15R	18R	22R	27R	33R	39R	47R	56R	68R	82R				
100R	120R	150R	180R	220R	270R	330R	390R	470R	560R	680R	820R				
1.0K	1.2K	1.5K	1.8K	2.2K	2.7K	3.3K	3.9K	4.7K	5.6K	6.8K	8.2K				
10K	12K	15K	18K	22K		33K		47K							
Temp. coefficient: +- 400ppm/C to 18R, +-350ppm/C 22R-47K															
Resistors 10W 5% Cement - wire wound up to 680R, from 1K Cement-layered type											1-4	5-24	25-99	100-499	500+
R10WCRM 0.10R-680R 1.0K-22K											0.2193	0.1668	0.1614	0.1507	0.1345
											0.2309	0.1757	0.1700	0.1587	0.1417
0.10R	0.12R	0.15R	0.18R	0.22R	0.27R	0.33R	0.39R	0.47R	0.56R	0.68R	0.82R				
1.0R	1.2R	1.5R	1.8R	2.2R	2.7R	3.3R	3.9R	4.7R	5.6R	6.8R	8.2R				
10R	12R	15R	18R	22R		33R		47R		68R					
100R		150R		220R		330R		470R		680R					
1.0K		1.5K		2.2K		3.3K		4.7K		6.8K					
10K		15K		22K		33K		47K							
Temp. coefficient: +- 400ppm/C to 18R, +-350ppm/C 22R-47K															

Resistors 0603 5%**R0603 0R-10M**

0R

1.0R	1.1R	1.2R	1.3R	1.5R	1.6R	1.8R	2.0R	2.2R	2.4R	2.7R	3.0R	3.3R	3.6R	3.9R	4.3R	4.7R	5.1R	5.6R	6.2R	6.8R	7.5R	8.2R	9.1R
10R	11R	12R	13R	15R	16R	18R	20R	22R	24R	27R	30R	33R	36R	39R	43R	47R	51R	56R	62R	68R	75R	82R	91R
100R	110R	120R	130R	150R	160R	180R	200R	220R	240R	270R	300R	330R	360R	390R	430R	470R	510R	560R	620R	680R	750R	820R	910R
1.0K	1.1K	1.2K	1.3K	1.5K	1.6K	1.8K	2.0K	2.2K	2.4K	2.7K	3.0K	3.3K	3.6K	3.9K	4.3K	4.7K	5.1K	5.6K	6.2K	6.8K	7.5K	8.2K	9.1K
10K	11K	12K	13K	15K	16K	18K	20K	22K	24K	27K	30K	33K	36K	39K	43K	47K	51K	56K	62K	68K	75K	82K	91K
100K	110K	120K	130K	150K	160K	180K	200K	220K	240K	270K	300K	330K	360K	390K	430K	470K	510K	560K	620K	680K	750K	820K	910K
1.0M	1.1M	1.2M	1.3M	1.5M	1.6M	1.8M	2.0M	2.2M	2.4M	2.7M	3.0M	3.3M	3.6M	3.9M	4.3M	4.7M	5.1M	5.6M	6.2M	6.8M	7.5M	8.2M	9.1M
10M																							

Resistors 0603 1%**R0603 1.0R-6.8R****R0603 10R-1.0M****R0603 1.2M-10M**

1.0R		1.5R		2.2R		3.3R		4.7R		6.8R														
10R	11R	12R	13R	15R	16R	18R	20R	22R	24R	27R	30R	33R	36R	39R	43R	47R	51R	56R	62R	68R	75R	82R	91R	
100R	110R	120R	130R	150R	160R	180R	200R	220R	240R	270R	300R	330R	360R	390R	430R	470R	510R	560R	620R	680R	750R	820R	910R	
1.0K	1.1K	1.2K	1.3K	1.5K	1.6K	1.8K	2.0K	2.2K	2.4K	2.7K	3K	3.3K	3.6K	3.9K	4.3K	4.7K	5.1K	5.6K	6.2K	6.8K	7.5K	8.2K	9.1K	
10K	11K	12K	13K	15K	16K	18K	20K	22K	24K	27K	30K	33K	36K	39K	43K	47K	51K	56K	62K	68K	75K	82K	91K	
100K	110K	120K	130K	150K	160K	180K	200K	220K	240K	270K	300K	330K	360K	390K	430K	470K	510K	560K	620K	680K	750K	820K	910K	
1.0M	1.2M		1.5M		1.8M		2.2M				3.3M				4.7M						6.8M			
10M																								

Resistors 0805 5%**R0805 0.22R, 0.47R и 0.68R****R0805 0R, 1.0R - 10M**

0R			0.22R			0.47R		0.68R															
1.0R	1.1R	1.2R	1.3R	1.5R	1.6R	1.8R	2.0R	2.2R	2.4R	2.7R	3.0R	3.3R	3.6R	3.9R	4.3R	4.7R	5.1R	5.6R	6.2R	6.8R	7.5R	8.2R	9.1R
10R	11R	12R	13R	15R	16R	18R	20R	22R	24R	27R	30R	33R	36R	39R	43R	47R	51R	56R	62R	68R	75R	82R	91R
100R	110R	120R	130R	150R	160R	180R	200R	220R	240R	270R	300R	330R	360R	390R	430R	470R	510R	560R	620R	680R	750R	820R	910R
1.0K	1.1K	1.2K	1.3K	1.5K	1.6K	1.8K	2.0K	2.2K	2.4K	2.7K	3.0K	3.3K	3.6K	3.9K	4.3K	4.7K	5.1K	5.6K	6.2K	6.8K	7.5K	8.2K	9.1K
10K	11K	12K	13K	15K	16K	18K	20K	22K	24K	27K	30K	33K	36K	39K	43K	47K	51K	56K	62K	68K	75K	82K	91K
100K	110K	120K	130K	150K	160K	180K	200K	220K	240K	270K	300K	330K	360K	390K	430K	470K	510K	560K	620K	680K	750K	820K	910K
1.0M	1.1M	1.2M	1.3M	1.5M	1.6M	1.8M	2.0M	2.2M	2.4M	2.7M	3.0M	3.3M	3.6M	3.9M	4.3M	4.7M	5.1M	5.6M	6.2M	6.8M	7.5M	8.2M	9.1M
10M																							

Resistors 0805 1%**R0805 1.0R****R0805 10R-1.0M****R0805 1.2M-2.2M**

1.0R																								
10R	11R	12R	13R	15R	16R	18R	20R	22R	24R	27R	30R	33R	36R	39R	43R	47R	51R	56R	62R	68R	75R	82R	91R	
100R	110R	120R	130R	150R	160R	180R	200R	220R	240R	270R	300R	330R	360R	390R	430R	470R	510R	560R	620R	680R	750R	820R	910R	
1.0K	1.1K	1.2K	1.3K	1.5K	1.6K	1.8K	2.0K	2.2K	2.4K	2.7K	3.0K	3.3K	3.6K	3.9K	4.3K	4.7K	5.1K	5.6K	6.2K	6.8K	7.5K	8.2K	9.1K	
10K	11K	12K	13K	15K	16K	18K	20K	22K	24K	27K	30K	33K	36K	39K	43K	47K	51K	56K	62K	68K	75K	82K	91K	
100K	110K	120K	130K	150K	160K	180K	200K	220K	240K	270K	300K	330K	360K	390K	430K	470K	510K	560K	620K	680K	750K	820K	910K	
1.0M	1.2M		1.5M		1.8M		2.2M																	

Resistors 1206 5%											1-10	10-99	100-999	1000+	5000+
R1206 0R											0.0250	0.0088	0.0040	0.0029	
R1206 0.47R u 0.68R											0.0790	0.0394	0.0266	0.0197	
R1206 1.0R-10M											0.0210	0.0075	0.0034	0.0025	
OR											0.47R	0.68R			
1.0R	1.2R	1.5R	1.8R	2.2R	2.7R	3.3R	3.6R	3.9R	4.7R	5.1R	5.6R	6.8R	7.5R	8.2R	
10R	12R	15R	18R	22R	27R	33R	39R		47R	56R		68R	75R	82R	91R
100R	110R	120R	130R	150R	160R	180R	200R	220R	240R	270R	300R	330R	360R	390R	470R
1.0K	1.1K	1.2K	1.3K	1.5K	1.6K	1.8K	2.0K	2.2K	2.4K	2.7K	3.0K	3.3K	3.6K	3.9K	4.3K
10K	11K	12K	13K	15K	16K	18K	20K	22K	24K	27K	30K	33K	36K	39K	43K
100K	110K	120K	130K	150K		180K	200K	220K	240K	270K	330K	390K		470K	
1.0M	1.2M	1.5M	1.8M	2.2M	2.7M	3.3M	3.9M		4.7M	5.6M		6.8M	8.2M		
10M															
Resistors 1206 1%											1-10	10-99	100-999	1000+	5000+
R1206 2.2R, 3.3R											0.0290	0.0144	0.0097	0.0072	
R1206 10R-1.0M											0.0320	0.0111	0.0050	0.0037	
R1206 1.5M-10M											0.0620	0.0308	0.0208	0.0154	
2.2R											3.3R				
10R		15R		22R		33R			47R			68R			
100R	120R	150R	180R	200R	220R	270R	330R	390R	470R	510R	560R	680R	820R		
1.0K	1.2K	1.3K	1.5K	1.8K	2.0K	2.2K	2.7K	3.3K	3.9K	4.7K	5.1K	5.6K	6.8K	7.5K	8.2K
10K	12K	13K	15K	18K	20K	22K	24K	27K	30K	33K	39K	47K	51K	56K	62K
100K	120K	150K		200K	220K		300K	330K		470K			680K		
1.0M		1.5M			2.2M					4.7M				8.2M	
10M															
Special prices for all types SMD resistors for unpacked tapes! New resistors values and types are added continuously!															
Please, visit our web site www.comet.bg															
Resistor Networks											1-9	10-99	100-499	500+	2000+
RA8A9 100R											0.033	0.029	0.028	0.026	0.023
RA8A9 220R											0.033	0.029	0.028	0.026	0.023
RA8A9 330R											0.033	0.029	0.028	0.026	0.023
RA8A9 470R											0.033	0.029	0.028	0.026	0.023
RA8A9 680R											0.033	0.029	0.028	0.026	0.023
RA8A9 1.0K											0.033	0.029	0.028	0.026	0.023
RA8A9 2.2K											0.033	0.029	0.028	0.026	0.023
RA8A9 3.3K											0.033	0.029	0.028	0.026	0.023
RA8A9 4.7K											0.033	0.029	0.028	0.026	0.023
RA8A9 10K											0.033	0.029	0.028	0.026	0.023
RA8A9 22K											0.033	0.029	0.028	0.026	0.023
RA8A9 33K											0.033	0.029	0.028	0.026	0.023
RA8A9 47K											0.033	0.029	0.028	0.026	0.023
RA8A9 100K											0.033	0.029	0.028	0.026	0.023
Resistor Networks SMD											1-9	10-99	100-999	1000+	
RA1206 (4X0603) 4B8 75R											0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 4B8 100R											0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 4B8 150R											0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 4B8 220R											0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 4B8 270R											0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 4B8 330R											0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 4B8 470R											0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 4B8 560R											0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 4B8 680R											0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 4B8 1.0K											0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 4B8 1.5K											0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 4B8 2.2K											0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 4B8 3.3K											0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 4B8 4.7K											0.0453	0.0160	0.0072	0.0053	

Resistor Networks SMD

		1-9	10-99	100-999	1000+
RA1206 (4X0603) 4B8 5.6K	4 resistors with 8 terminals SMD 4x0603 5.6K	0.0453	0.0160	0.0072	0.0053
RA1206 (4X0603) 4B8 6.8K	4 resistors with 8 terminals SMD 4x0603 6.8K	0.0453	0.0160	0.0072	0.0053
RA1206 (4X0603) 4B8 10K	4 resistors with 8 terminals SMD 4x0603 10K	0.0453	0.0160	0.0072	0.0053
RA1206 (4X0603) 4B8 15K	4 resistors with 8 terminals SMD 4x0603 15K	0.0453	0.0160	0.0072	0.0053
RA1206 (4X0603) 4B8 22K	4 resistors with 8 terminals SMD 4x0603 22K	0.0453	0.0160	0.0072	0.0053
RA1206 (4X0603) 4B8 33K	4 resistors with 8 terminals SMD 4x0603 33K	0.0453	0.0160	0.0072	0.0053
RA1206 (4X0603) 4B8 47K	4 resistors with 8 terminals SMD 4x0603 47K	0.0453	0.0160	0.0072	0.0053
RA1206 (4X0603) 4B8 56K	4 resistors with 8 terminals SMD 4x0603 56K	0.0453	0.0160	0.0072	0.0053
RA1206 (4X0603) 4B8 68K	4 resistors with 8 terminals SMD 4x0603 68K	0.0453	0.0160	0.0072	0.0053
RA1206 (4X0603) 4B8 100K	4 resistors with 8 terminals SMD 4x0603 100K	0.0453	0.0160	0.0072	0.0053
RA1206 (4X0603) 4B8 150K	4 resistors with 8 terminals SMD 4x0603 150K	0.0453	0.0160	0.0072	0.0053
RA1206 (4X0603) 4B8 220K	4 resistors with 8 terminals SMD 4x0603 220K	0.0453	0.0160	0.0072	0.0053
RA1206 (4X0603) 4B8 330K	4 resistors with 8 terminals SMD 4x0603 330K	0.0453	0.0160	0.0072	0.0053
RA1206 (4X0603) 4B8 470K	4 resistors with 8 terminals SMD 4x0603 470K	0.0453	0.0160	0.0072	0.0053
RA1206 (4X0603) 4B8 560K	4 resistors with 8 terminals SMD 4x0603 560K	0.0453	0.0160	0.0072	0.0053
RA1206 (4X0603) 4B8 680K	4 resistors with 8 terminals SMD 4x0603 680K	0.0453	0.0160	0.0072	0.0053
RA1206 (4X0603) 4B8 1.0M	4 resistors with 8 terminals SMD 4x0603 1.0M	0.0453	0.0160	0.0072	0.0053

Trimmer resistors

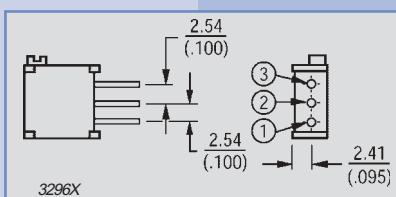
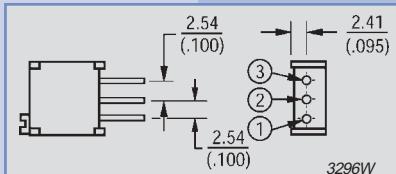
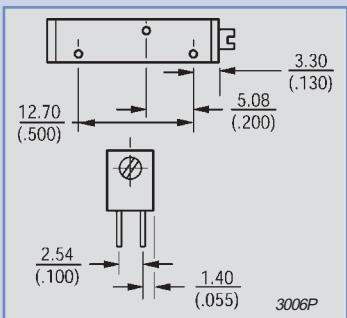
		1-9	10-99	100-499	500+
PT6h(625MC)100R	Carbon Trimmer Potent. 5x2.5mm 100R, Horiz. Type	0.100	0.083	0.078	0.069
PT6h(625MC)500R	Carbon Trimmer Potent. 5x2.5mm 500R, Horiz. Type	0.100	0.083	0.078	0.069
PT6h(625MC)1.0K	Carbon Trimmer Potent. 5x2.5mm 1K, Horiz. Type	0.100	0.083	0.078	0.069
PT6h(625MC)5.0K	Carbon Trimmer Potent. 5x2.5mm 5K, Horiz. Type	0.100	0.083	0.078	0.069
PT6h(625MC)10K	Carbon Trimmer Potent. 5x2.5mm 10K, Horiz. Type	0.100	0.083	0.078	0.069
PT6h(625MC)20K	Carbon Trimmer Potent. 5x2.5mm 20K, Horiz. Type	0.100	0.083	0.078	0.069
PT6h(625MC)50K	Carbon Trimmer Potent. 5x2.5mm 50K, Horiz. Type	0.100	0.083	0.078	0.069
PT6h(625MC)100K	Carbon Trimmer Potent. 5x2.5mm 100K, Horiz. Type	0.100	0.083	0.078	0.069
PT6h(625MC)500K	Carbon Trimmer Potent. 5x2.5mm 500K, Horiz. Type	0.100	0.083	0.078	0.069
PT6h(625MC)1.0M	Carbon Trimmer Potent. 5x2.5mm 1M, Horiz. Type	0.100	0.083	0.078	0.069
PT6v(655MCL)100R	Carbon Trimmer Potent. 5x5mm 100R, Vertical Type	0.100	0.083	0.078	0.069
PT6v(655MCL)500R	Carbon Trimmer Potent. 5x5mm 500R, Vertical Type	0.100	0.083	0.078	0.069
PT6v(655MCL)1.0K	Carbon Trimmer Potent. 5x5mm 1K, Vertical Type	0.100	0.083	0.078	0.069
PT6v(655MCL)2.0K	Carbon Trimmer Potent. 5x5mm 2K, Vertical Type	0.100	0.083	0.078	0.069
PT6v(655MCL)5.0K	Carbon Trimmer Potent. 5x5mm 5K, Vertical Type	0.100	0.083	0.078	0.069
PT6v(655MCL)10K	Carbon Trimmer Potent. 5x5mm 10K, Vertical Type	0.100	0.083	0.078	0.069
PT6v(655MCL)20K	Carbon Trimmer Potent. 5x5mm 20K, Vertical Type	0.100	0.083	0.078	0.069
PT6v(655MCL)50K	Carbon Trimmer Potent. 5x5mm 50K, Vertical Type	0.100	0.083	0.078	0.069
PT6v(655MCL)100K	Carbon Trimmer Potent. 5x5mm 100K, Vertical Type	0.100	0.083	0.078	0.069
PT6v(655MCL)500K	Carbon Trimmer Potent. 5x5mm 500K, Vertical Type	0.100	0.083	0.078	0.069
TRV625MC 1.0K	Ceramic Trimmer Potent. 5x2.5mm 1K, Horiz. Type	0.124	0.111	0.101	0.092
TRV625MC 5.0K	Ceramic Trimmer Potent. 5x2.5mm 5K, Horiz. Type	0.124	0.111	0.101	0.092
TRV625MC 10K	Ceramic Trimmer Potent. 5x2.5mm 10K, Horiz. Type	0.124	0.111	0.101	0.092
TRV625MC 20K	Ceramic Trimmer Potent. 5x2.5mm 20K, Horiz. Type	0.124	0.111	0.101	0.092
TRV625MC 50K	Ceramic Trimmer Potent. 5x2.5mm 50K, Horiz. Type	0.124	0.111	0.101	0.092
TRV625MC 100K	Ceramic Trimmer Potent. 5x2.5mm 100K, Horiz. Type	0.124	0.111	0.101	0.092
TRV625MC 200K	Ceramic Trimmer Potent. 5x2.5mm 200K, Horiz. Type	0.124	0.111	0.101	0.092
TRH655MCL 1.0K	Ceramic Trimmer Potent. 5x5mm 1K, Vertical Type	0.124	0.111	0.101	0.092
TRH655MCL 5.0K	Ceramic Trimmer Potent. 5x5mm 5K, Vertical Type	0.124	0.111	0.101	0.092
TRH655MCL 10K	Ceramic Trimmer Potent. 5x5mm 10K, Vertical Type	0.124	0.111	0.101	0.092
TRH655MCL 20K	Ceramic Trimmer Potent. 5x5mm 20K, Vertical Type	0.124	0.111	0.101	0.092
TRH655MCL 50K	Ceramic Trimmer Potent. 5x5mm 50K, Vertical Type	0.124	0.111	0.101	0.092
TRH655MCL 100K	Ceramic Trimmer Potent. 5x5mm 100K, Vertical Type	0.124	0.111	0.101	0.092
TRH655MCL 200K	Ceramic Trimmer Potent. 5x5mm 200K, Vertical Type	0.124	0.111	0.101	0.092

Trimmer resistors BOURNS (SPECTROL)

		1-9	10-99	100-499	500+
3006P(43P) 1K MBR	0.75W 100ppm/C 19x4.8mm 15turns	0.507	0.427	0.398	0.362
3006P(43P) 2K MBR	0.75W 100ppm/C 19x4.8mm 15turns	0.507	0.427	0.398	0.362
3006P(43P) 5K MBR	0.75W 100ppm/C 19x4.8mm 15turns	0.507	0.427	0.398	0.362
3006P(43P) 10K MBR	0.75W 100ppm/C 19x4.8mm 15turns	0.507	0.427	0.398	0.362
3006P(43P) 20K MBR	0.75W 100ppm/C 19x4.8mm 15turns	0.507	0.427	0.398	0.362
3006P(43P) 50K MBR	0.75W 100ppm/C 19x4.8mm 15turns	0.507	0.427	0.398	0.362
3006P(43P) 100K MBR	0.75W 100ppm/C 19x4.8mm 15turns	0.524	0.441	0.411	0.374
3296X(64X) 100R MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481
3296X(64X) 200R MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481
3296X(64X) 500R MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481
3296X(64X) 1K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481
3296X(64X) 2K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481
3296X(64X) 5K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481
3296X(64X) 10K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481
3296X(64X) 20K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481
3296X(64X) 50K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481
3296X(64X) 100K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.711	0.599	0.558	0.508
3296X(64X) 200K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481
3296X(64X) 500K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481
3296W(64W) 100R MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.649	0.547	0.510	0.463

Trimmer resistors BOURNS (SPECTROL)

		1-9	10-99	100-499	500+
3296W(64W) 200R MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.647	0.545	0.508	0.462
3296W(64W) 500R MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.647	0.545	0.508	0.462
3296W(64W) 1K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.647	0.545	0.508	0.462
3296W(64W) 2K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.647	0.545	0.508	0.462
3296W(64W) 5K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.647	0.545	0.508	0.462
3296W(64W) 10K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.647	0.545	0.508	0.462
3296W(64W) 20K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.647	0.545	0.508	0.462
3296W(64W) 50K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.647	0.545	0.508	0.462
3296W(64W) 100K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.647	0.545	0.508	0.462
3296W(64W) 200K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.647	0.545	0.508	0.462
3296W(64W) 500K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.647	0.545	0.508	0.462
3296W(64W) 1M MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.592	0.499	0.465	0.423



3296W(64W) 100R DIV	0.5W 100ppm/C 9.5x4.8mm 25turns
3296W(64W) 500R DIV	0.5W 100ppm/C 9.5x4.8mm 25turns
3296W(64W) 1K DIV	0.5W 100ppm/C 9.5x4.8mm 25turns
3296W(64W) 2K DIV	0.5W 100ppm/C 9.5x4.8mm 25turns
3296W(64W) 5K DIV	0.5W 100ppm/C 9.5x4.8mm 25turns
3296W(64W) 10K DIV	0.5W 100ppm/C 9.5x4.8mm 25turns
3296W(64W) 20K DIV	0.5W 100ppm/C 9.5x4.8mm 25turns
3296W(64W) 50K DIV	0.5W 100ppm/C 9.5x4.8mm 25turns
3296W(64W) 500K DIV	0.5W 100ppm/C 9.5x4.8mm 25turns

Trimmer resistors PIHER

		1-9	10-99	100-499	500+
PT6KH 2.5K	0.15W Ø 6mm PIHER	0.283	0.252	0.224	0.210
PT6KV 50K	0.15W Ø 6mm PIHER	0.283	0.252	0.224	0.210
PT6KV 2.2M	0.15W Ø 6mm PIHER	0.283	0.252	0.224	0.210
PT10LH 1K	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LH 2.5K	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LH 5K	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LH 10K	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LH 25K	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LH 50K	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LH 100K	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LH 250K	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LH 1M	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LH 2.2M	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LV 100R	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LV 220R	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LV 250R	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LV 1K	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LV 2.2K	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LV 2.5K	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LV 4.7K	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LV 5K	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LV 10K	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LV 22K	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LV 25K	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LV 50K	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LV 100K	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LV 220K	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LV 250K	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LV 500K	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208
PT10LV 1M	0.15W Ø 10mm PIHER	0.281	0.249	0.222	0.208



Trimmer resistors PIHER

			1-9	10-99	100-499	500+
PT10MV 2.2K	0.15W Ø 10mm PIHER		0.281	0.249	0.222	0.208
PT10MV 100K	0.15W Ø 10mm PIHER		0.281	0.249	0.222	0.208
PT15LV 1K	0.25W Ø 15mm PIHER		0.334	0.297	0.264	0.247
PT15LV 5K	0.25W Ø 15mm PIHER		0.334	0.297	0.264	0.247
PT15LV 10K	0.25W Ø 15mm PIHER		0.334	0.297	0.264	0.247
PT15LV 25K	0.25W Ø 15mm PIHER		0.334	0.297	0.264	0.247
PT15LV 50K	0.25W Ø 15mm PIHER		0.334	0.297	0.264	0.247
PT15LV 250K	0.25W Ø 15mm PIHER		0.334	0.297	0.264	0.247
PT15LV 5M	0.25W Ø 15mm PIHER		0.334	0.297	0.264	0.247
PT15NV 1K	0.25W Ø 15mm PIHER		0.334	0.297	0.264	0.247
PT15NV 2.5K	0.25W Ø 15mm PIHER		0.334	0.297	0.264	0.247
PT15NV 5K	0.25W Ø 15mm PIHER		0.334	0.297	0.264	0.247
PT15NV 10K	0.25W Ø 15mm PIHER		0.334	0.297	0.264	0.247
PT15NV 25K	0.25W Ø 15mm PIHER		0.334	0.297	0.264	0.247
PT15NV 50K	0.25W Ø 15mm PIHER		0.334	0.297	0.265	0.247
PT15NV 2.5M	0.25W Ø 15mm PIHER		0.334	0.297	0.265	0.247



PT15LV



PT15NV

Trimmer resistors SMD

		1-9	10-99	100-499	500+
TRMVR 4K7 SMD ROHM	SMD R trimmer 4.7K MVR34	0.1020	0.0909	0.0833	0.0758
TRMVR 10K SMD ROHM	SMD R trimmer 10K MVR34	0.1020	0.0909	0.0833	0.0758
TRMVR 100K SMD ROHM	SMD R trimmer 100K MVR34	0.1020	0.0909	0.0833	0.0758
TRMVR 1K SMD ROHM	SMD R trimmer 1K MVR34	0.1020	0.0909	0.0833	0.0758
TRMVR 2K2 SMD ROHM	SMD R trimmer 2.2K MVR34	0.1020	0.0909	0.0833	0.0758
TRMVR 22K SMD ROHM	SMD R trimmer 22K MVR34	0.1020	0.0909	0.0833	0.0758
TRMVR 47K SMD ROHM	SMD R trimmer 47K MVR34	0.1020	0.0909	0.0833	0.0758

Potentiometers

		1-9	10-99	100-499	500+
POT16K1-LIN1K	Linear potentiometer 1K 20%, Horiz. Type P.C.B.	0.349	0.291	0.272	0.241
POT16K1-LIN5K	Linear potentiometer 5K 20%, Horiz. Type P.C.B.	0.349	0.291	0.272	0.241
POT16K1-LIN10K	Linear potentiometer 10K 20%, Horiz. Type P.C.B.	0.349	0.291	0.272	0.241
POT16K1-LIN50K	Linear potentiometer 50K 20%, Horiz. Type P.C.B.	0.349	0.291	0.272	0.241
POT16K1-LIN100K	Linear potentiometer 100K 20%, Horiz. Type P.C.B.	0.349	0.291	0.272	0.241
POT16K1-LIN500K	Linear potentiometer 500K 20%, Horiz. Type P.C.B.	0.349	0.291	0.272	0.241
POTSW16KN1-LIN10K	Liniar potentiometer with switch 10K 20%, P.C.B.	0.527	0.439	0.410	0.363
POT16T1-LIN2x10K	Dual linear potent. 10K 20%, Horiz. Type P.C.B.	0.560	0.484	0.452	0.400
POT16T1-LIN2x22K	Dual linear potent. 22K 20%, Horiz. Type P.C.B.	0.560	0.484	0.452	0.400
POT16T1-LIN2x47K	Dual linear potent. 47K 20%, Horiz. Type P.C.B.	0.560	0.484	0.452	0.400
POT16T1-LIN2x100K	Dual linear potent. 100K 20%, Horiz. Type P.C.B.	0.560	0.484	0.452	0.400
POT16T1-LOG2x10K	Dual log. potent. 10K 20%, Horiz. Type P.C.B.	0.560	0.484	0.452	0.400
POT16T1-LOG2x22K	Dual log. potent. 22K 20%, Horiz. Type P.C.B.	0.560	0.484	0.452	0.400
POT16T1-LOG2x47K	Dual log. potent. 47K 20%, Horiz. Type P.C.B.	0.560	0.484	0.452	0.400
POT16T1-LOG2x100K	Dual log. potent. 100K 20%, Horiz. Type P.C.B.	0.560	0.484	0.452	0.400
POT16T1-ALOG2x250K	Dual log. potent. 250K 20%, Horiz. Type P.C.B.	0.885	0.765	0.715	0.632
POT16T3-R-LIN2x10K	Dual linear potent. 10K 20%, Vertical Type P.C.B.	0.625	0.540	0.504	0.446
POT16T3-R-LIN2x22K	Dual linear potent. 22K 20%, Vertical Type P.C.B.	0.625	0.540	0.504	0.446
POT16T3-R-LIN2x47K	Dual linear potent. 47K 20%, Vertical Type P.C.B.	0.625	0.540	0.504	0.446
POT16T3-R-LIN2x100K	Dual linear potent. 100K 20%, Vertical Type P.C.B.	0.625	0.540	0.504	0.446
POTSL60V3-LIN10K	Slide linear potentiometer 10K 20% P.C.B.	0.631	0.546	0.510	0.451
POTSL60V3-LIN47K	Slide linear potentiometer 47K 20% P.C.B.	0.631	0.546	0.510	0.451
POTSL60V3-LIN100K	Slide linear potentiometer 100K 20% P.C.B.	0.631	0.546	0.510	0.451
POTSL60V3-LOG10K	Slide logarithmic potentiometer 10K 20% P.C.B.	0.631	0.546	0.510	0.451
POTSL60V3-LOG47K	Slide logarithmic potentiometer 47K 20% P.C.B.	0.631	0.546	0.510	0.451
POTSL60V3-LOG100K	Slide logarithmic potentiometer 100K 20% P.C.B.	0.631	0.546	0.510	0.451



POTRK2122G



POT16K1



POTSL60V3

		1-4	5-24	25-99	100+
POTRK2122G-LIN2x20K	Dual linear snap-in potentiometer 20K 20%	4.576	4.100	3.953	3.661
POTRK2122G-LIN2x50K	Dual linear snap-in potentiometer 50K 20%	4.576	4.100	3.953	3.661
POTRK2122G-LIN2x100K	Dual linear snap-in potentiometer 100K 20%	4.576	4.100	3.953	3.661

Potentiometers		1-4	5-24	25-99	100+
POTRK2122G-LOG2x10K	Dual logarithmic snap-in potentiometer 10K 20%	4.441	3.979	3.837	3.553
POTRK2122G-LOG2x22K	Dual logarithmic snap-in potentiometer 22K 20%	4.441	3.979	3.837	3.553
POTRK2122G-LOG2x47K	Dual logarithmic snap-in potentiometer 47K 20%	4.441	3.979	3.837	3.553
Digital Potentiometers		1-4	5-24	25-99	100+
MCP41010-I/SN	NS08 Digital Pot, 256 steps, SPI, 10kohms, single ch	1.295	1.160	1.119	1.036
MCP41010-I/P	DIP8 Digital Pot, 256 steps, SPI, 10kohms, single ch	1.295	1.160	1.119	1.036
MCP41100-I/P	DIP8 Digital Pot, 256 steps, SPI, 100kohms, single ch	1.295	1.160	1.119	1.036
MCP41100-I/JSN	NS08 Digital Pot, 256 steps, SPI, 100kohms, single ch	1.295	1.160	1.119	1.036
MCP42010-I/P	DIP14 Digital Pot, 256 steps, SPI, 10kohms, dual ch	1.929	1.729	1.667	1.543
MCP42010-I/SL	NS08 Digital Pot, 256 steps, SPI, 10kohms, dual ch	1.929	1.729	1.667	1.543
MCP42050-I/SL	NS08 Digital Pot, 256 steps, SPI, 50kohms, dual ch	1.929	1.729	1.667	1.543
MCP42100-I/SL	NS08 Digital Pot, 256 steps, SPI, 100kohms, dual ch	1.929	1.729	1.667	1.543
MCP42100-I/P	DIP14 Digital Pot, 256 steps, SPI, 100kohms, dual ch	1.929	1.729	1.667	1.543
Ceramic Capacitors SMD 0603 ROHM		1-9	10-99	100-999	1000-3999
C0603 0.5pF 50V C0G ROHM	0.5pF 50V C0G +0.25pF	0.0190	0.0062	0.0037	0.0035
C0603 1.0pF 50V C0G ROHM	1.0pF 50V C0G +0.25pF	0.0190	0.0062	0.0037	0.0035
C0603 1.2pF 50V C0G ROHM	1.2pF 50V C0G +0.25pF	0.0190	0.0062	0.0037	0.0035
C0603 1.5pF 50V C0G ROHM	1.5pF 50V C0G +0.25pF	0.0190	0.0062	0.0037	0.0035
C0603 1.8pF 50V C0G ROHM	1.8pF 50V C0G +0.25pF	0.0190	0.0062	0.0037	0.0035
C0603 2.0pF 50V C0G ROHM	2.0pF 50V C0G +0.25pF	0.0190	0.0062	0.0037	0.0035
C0603 2.2pF 50V C0G ROHM	2.2pF 50V C0G +0.25pF	0.0190	0.0062	0.0037	0.0035
C0603 2.7pF 50V C0G ROHM	2.7pF 50V C0G +0.25pF	0.0190	0.0062	0.0037	0.0035
C0603 3.0pF 50V C0G ROHM	3.0pF 50V C0G +0.25pF	0.0190	0.0062	0.0037	0.0035
C0603 3.3pF 50V C0G ROHM	3.3pF 50V C0G +0.25pF	0.0190	0.0062	0.0037	0.0035
C0603 3.9pF 50V C0G ROHM	3.9pF 50V C0G +0.25pF	0.0190	0.0062	0.0037	0.0035
C0603 4.0pF 50V C0G ROHM	4.0pF 50V C0G +0.25pF	0.0190	0.0062	0.0037	0.0035
C0603 4.7pF 50V C0G ROHM	4.7pF 50V C0G +0.25pF	0.0190	0.0062	0.0037	0.0035
C0603 5.0pF 50V C0G ROHM	5.0pF 50V C0G +0.25pF	0.0190	0.0062	0.0037	0.0035
C0603 6.0pF 50V C0G ROHM	6.0pF 50V C0G +0.5pF	0.0190	0.0062	0.0037	0.0035
C0603 6.8pF 50V C0G ROHM	6.8pF 50V C0G +0.5pF	0.0190	0.0062	0.0037	0.0035
C0603 7.0pF 50V C0G ROHM	7.0pF 50V C0G +0.5pF	0.0190	0.0062	0.0037	0.0035
C0603 8.0pF 50V C0G ROHM	8.0pF 50V C0G +0.5pF	0.0190	0.0062	0.0037	0.0035
C0603 8.2pF 50V C0G ROHM	8.2pF 50V C0G +0.5pF	0.0190	0.0062	0.0037	0.0035
C0603 9.0pF 50V C0G ROHM	9.0pF 50V C0G +0.5pF	0.0190	0.0062	0.0037	0.0035
C0603 10pF 50V C0G ROHM	10pF 50V C0G +0.5pF	0.0190	0.0062	0.0037	0.0035
C0603 11pF 50V C0G ROHM	11pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039
C0603 12pF 50V C0G ROHM	12pF 50V C0G +5%	0.0190	0.0062	0.0037	0.0035
C0603 13pF 50V C0G ROHM	13pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039
C0603 15pF 50V C0G ROHM	15pF 50V C0G +5%	0.0190	0.0062	0.0037	0.0035
C0603 16pF 50V C0G ROHM	16pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039
C0603 18pF 50V C0G ROHM	18pF 50V C0G +5%	0.0190	0.0062	0.0037	0.0035
C0603 20pF 50V C0G ROHM	20pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039
C0603 22pF 50V C0G ROHM	22pF 50V C0G +5%	0.0190	0.0062	0.0037	0.0035
C0603 24pF 50V C0G ROHM	24pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039
C0603 27pF 50V C0G ROHM	27pF 50V C0G +5%	0.0190	0.0062	0.0037	0.0035
C0603 30pF 50V C0G ROHM	30pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039
C0603 33pF 50V C0G ROHM	33pF 50V C0G +5%	0.0190	0.0062	0.0037	0.0035
C0603 36pF 50V C0G ROHM	36pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039
C0603 39pF 50V C0G ROHM	39pF 50V C0G +5%	0.0190	0.0062	0.0037	0.0035
C0603 43pF 50V C0G ROHM	43pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039
C0603 47pF 50V C0G ROHM	47pF 50V C0G +5%	0.0190	0.0062	0.0037	0.0035
C0603 51pF 50V C0G ROHM	51pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039
C0603 56pF 50V C0G ROHM	56pF 50V C0G +5%	0.0190	0.0062	0.0037	0.0035
C0603 62pF 50V C0G ROHM	62pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039
C0603 68pF 50V C0G ROHM	68pF 50V C0G +5%	0.0200	0.0065	0.0039	0.0037
C0603 75pF 50V C0G ROHM	75pF 50V C0G +5%	0.0230	0.0076	0.0045	0.0043
C0603 82pF 50V C0G ROHM	82pF 50V C0G +5%	0.0200	0.0065	0.0039	0.0037
C0603 91pF 50V C0G ROHM	91pF 50V C0G +5%	0.0230	0.0076	0.0045	0.0043
C0603 100pF 50V C0G ROHM	100pF 50V C0G +5%	0.0200	0.0065	0.0039	0.0037
C0603 110pF 50V C0G ROHM	110pF 50V C0G +5%	0.0230	0.0076	0.0045	0.0043
C0603 120pF 50V C0G ROHM	120pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039
C0603 130pF 50V C0G ROHM	130pF 50V C0G +5%	0.0240	0.0079	0.0047	0.0045
C0603 150pF 50V C0G ROHM	150pF 50V C0G +5%	0.0280	0.0093	0.0056	0.0053
C0603 160pF 50V C0G ROHM	160pF 50V C0G +5%	0.0320	0.0107	0.0064	0.0061
C0603 180pF 50V C0G ROHM	180pF 50V C0G +5%	0.0280	0.0093	0.0056	0.0053
C0603 200pF 50V C0G ROHM	200pF 50V C0G +5%	0.0320	0.0107	0.0064	0.0061
C0603 220pF 50V C0G ROHM	220pF 50V C0G +5%	0.0320	0.0107	0.0064	0.0061
C0603 240pF 50V C0G ROHM	240pF 50V C0G +5%	0.0360	0.0120	0.0072	0.0069
C0603 270pF 50V C0G ROHM	270pF 50V C0G +5%	0.0320	0.0107	0.0064	0.0061
C0603 300pF 50V C0G ROHM	300pF 50V C0G +5%	0.0360	0.0120	0.0072	0.0069
C0603 330pF 50V C0G ROHM	330pF 50V C0G +5%	0.0360	0.0120	0.0072	0.0069
C0603 330pF 50V X7R ROHM	330pF 50V X7R +10%	0.0150	0.0050	0.0030	0.0029
C0603 360pF 50V C0G ROHM	360pF 50V C0G +5%	0.0460	0.0155	0.0093	0.0088
C0603 390pF 50V C0G ROHM	390pF 50V C0G +5%	0.0410	0.0138	0.0083	0.0078
C0603 430pF 50V C0G ROHM	430pF 50V C0G +5%	0.0460	0.0155	0.0093	0.0088
C0603 470pF 50V C0G ROHM	470pF 50V C0G +5%	0.0390	0.0131	0.0078	0.0074
C0603 470pF 50V X7R ROHM	470pF 50V X7R +10%	0.0150	0.0050	0.0030	0.0029
C0603 680pF 50V C0G ROHM	680pF 50V C0G +5%	0.0580	0.0193	0.0116	0.0110

Ceramic Capacitors SMD 0603 ROHM

		1-9	10-99	100-999	1000-3999	4000+
C0603 680pF 50V X7R ROHM	680pF 50V X7R +10%	0.0150	0.0050	0.0030	0.0029	0.0025
C0603 1.0nF 50V X7R ROHM	1.0nF 50V X7R +10%	0.0150	0.0050	0.0030	0.0029	0.0025
C0603 1.5nF 50V X7R ROHM	1.5nF 50V X7R +10%	0.0150	0.0050	0.0030	0.0029	0.0025
C0603 2.2nF 50V X7R ROHM	2.2nF 50V X7R +10%	0.0150	0.0050	0.0030	0.0029	0.0025
C0603 2.2nF 50V Y5V ROHM	2.2nF 50V Y5V +80-20%	0.0130	0.0045	0.0027	0.0025	0.0022
C0603 3.3nF 50V X7R ROHM	3.3nF 50V X7R +10%	0.0150	0.0050	0.0030	0.0029	0.0025
C0603 4.7nF 50V X7R ROHM	4.7nF 50V X7R +10%	0.0150	0.0050	0.0030	0.0029	0.0025
C0603 5.6nF 50V X7R ROHM	5.6nF 50V X7R +10%	0.0170	0.0055	0.0033	0.0031	0.0028
C0603 6.8nF 50V X7R ROHM	6.8nF 50V X7R +10%	0.0150	0.0050	0.0030	0.0029	0.0025
C0603 10nF 50V X7R ROHM	10nF 50V X7R +10%	0.0150	0.0050	0.0030	0.0029	0.0025
C0603 15nF 50V X7R ROHM	15nF 50V X7R +10%	0.0220	0.0074	0.0045	0.0042	0.0037
C0603 22nF 50V X7R ROHM	22nF 50V X7R +10%	0.0220	0.0074	0.0045	0.0042	0.0037
C0603 22nF 50VY5V ROHM	22nF 50VY5V +80-20%	0.0130	0.0045	0.0027	0.0025	0.0022
C0603 33nF 25V X7R ROHM	33nF 25V X7R +10%	0.0190	0.0062	0.0037	0.0035	0.0031
C0603 47nF 25V X7R ROHM	47nF 25V X7R +10%	0.0190	0.0062	0.0037	0.0035	0.0031
C0603 47nF 50V Y5V ROHM	47nF 50V Y5V +80-20%	0.0130	0.0045	0.0027	0.0025	0.0022
C0603 68nF 25V X7R ROHM	68nF 25V X7R +10%	0.0190	0.0062	0.0037	0.0035	0.0031
C0603 100nF 25V X7R ROHM	100nF 25V X7R +10%	0.0170	0.0055	0.0033	0.0031	0.0028
C0603 100nF 25VY5V ROHM	100nF 25VY5V +80-20%	0.0130	0.0045	0.0027	0.0025	0.0022
C0603 100nF 50V X7R ROHM	100nF 50V X7R +10%	0.0370	0.0123	0.0074	0.0070	0.0061
C0603 100nF 50VY5V ROHM	100nF 50VY5V +80-20%	0.0130	0.0045	0.0027	0.0025	0.0022
C0603 220nF 16VY5V ROHM	220nF 16VY5V +80-20%	0.0130	0.0045	0.0027	0.0025	0.0022

Ceramic Capacitors SMD 0603 SAMSUNG

		1-9	10-99	100-999	1000-3999	4000+
C0603 0.5pF 50V C0G SAMSUNG	0.5pF 50V C0G +0.25pF	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 1.0pF 50V C0G SAMSUNG	1.0pF 50V C0G +0.25pF	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 1.5pF 50V C0G SAMSUNG	1.5pF 50V C0G +0.25pF	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 1.8pF 50V C0G SAMSUNG	1.8pF 50V C0G +0.25pF	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 2.2pF 50V C0G SAMSUNG	2.2pF 50V C0G +0.25pF	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 3.3pF 50V C0G SAMSUNG	3.3pF 50V C0G +0.25pF	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 3.9pF 50V C0G SAMSUNG	3.9pF 50V C0G +0.25pF	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 4.7pF 50V C0G SAMSUNG	4.7pF 50V C0G +0.25pF	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 5.1pF 50V C0G SAMSUNG	5.1pF 50V C0G +0.25pF	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 5.6pF 50V C0G SAMSUNG	5.6pF 50V C0G +0.25pF	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 8.2pF 50V C0G SAMSUNG	8.2pF 50V C0G +0.25pF	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 10pF 50V C0G SAMSUNG	10pF 50V C0G +0.25pF	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 12pF 50V C0G SAMSUNG	12pF 50V C0G +5%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 15pF 50V C0G SAMSUNG	15pF 50V C0G +5%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 16pF 50V C0G SAMSUNG	16pF 50V C0G +5%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 18pF 50V C0G SAMSUNG	18pF 50V C0G +5%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 20pF 50V C0G SAMSUNG	20pF 50V C0G +5%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 22pF 50V C0G SAMSUNG	22pF 50V C0G +5%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 24pF 50V C0G SAMSUNG	24pF 50V C0G +5%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 27pF 50V C0G SAMSUNG	27pF 50V C0G +5%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 33pF 50V C0G SAMSUNG	33pF 50V C0G +5%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 39pF 50V C0G SAMSUNG	39pF 50V C0G +5%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 47pF 50V C0G SAMSUNG	47pF 50V C0G +5%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 51pF 50V C0G SAMSUNG	51pF 50V C0G +5%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 56pF 50V C0G SAMSUNG	56pF 50V C0G +5%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 62pF 50V C0G SAMSUNG	62pF 50V C0G +5%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 68pF 50V C0G SAMSUNG	68pF 50V C0G +5%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 100pF 50V C0G SAMSUNG	100pF 50V C0G +5%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 120pF 50V C0G SAMSUNG	120pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0603 180pF 50V C0G SAMSUNG	180pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0603 220pF 50V C0G SAMSUNG	220pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0603 270pF 50V C0G SAMSUNG	270pF 50V C0G +5%	0.0270	0.0089	0.0053	0.0051	0.0044
C0603 330pF 50V C0G SAMSUNG	330pF 50V C0G +5%	0.0290	0.0096	0.0057	0.0055	0.0048
C0603 330pF 50V X7R SAMSUNG	330pF 50V X7R +10%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 470pF 50V C0G SAMSUNG	470pF 50V C0G +5%	0.0320	0.0107	0.0064	0.0061	0.0054
C0603 470pF 50V X7R SAMSUNG	470pF 50V X7R +10%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 1.0nF 50V C0G SAMSUNG	1.0nF 50V C0G +5%	0.0430	0.0145	0.0087	0.0082	0.0072
C0603 1.0nF 50V X7R SAMSUNG	1.0nF 50V X7R +10%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 1.5nF 50V X7R SAMSUNG	1.5nF 50V X7R +10%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 2.2nF 50V X7R SAMSUNG	2.2nF 50V X7R +10%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 2.2nF 50V Y5V SAMSUNG	2.2nF 50V Y5V +80-20%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 3.3nF 50V X7R SAMSUNG	3.3nF 50V X7R +10%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 4.7nF 50V X7R SAMSUNG	4.7nF 50V X7R +10%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 5.6nF 50V X7R SAMSUNG	5.6nF 50V X7R +10%	0.0150	0.0048	0.0029	0.0028	0.0024
C0603 10nF 50V X7R SAMSUNG	10nF 50V X7R +10%	0.0140	0.0048	0.0029	0.0027	0.0024
C0603 15nF 50V X7R SAMSUNG	15nF 50V X7R +10%	0.0200	0.0065	0.0039	0.0037	0.0033
C0603 22nF 50V X7R SAMSUNG	22nF 50V X7R +10%	0.0200	0.0065	0.0039	0.0037	0.0033
C0603 100nF 25V Y5V SAMSUNG	100nF 25V Y5V +80-20%	0.0120	0.0041	0.0025	0.0023	0.0020
C0603 100nF 50V X7R SAMSUNG	100nF 50V X7R +10%	0.0200	0.0068	0.0041	0.0038	0.0034
C0603 100nF 50VY5V SAMSUNG	100nF 50VY5V +80-20%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 220nF 25VY5V SAMSUNG	220nF 25VY5V +80-20%	0.0270	0.0091	0.0055	0.0052	0.0046
C0603 1.0uF 10V X5R SAMSUNG	1.0uF 10V X5R +10%	0.0460	0.0154	0.0093	0.0088	0.0077

Ceramic Capacitors SMD 0603

		1-9	10-99	100-999	1000-3999	4000+
C0603 0.5pF 50V C0G	0.5pF 50V C0G +0.25pF	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 1.0pF 50V C0G	1.0pF 50V C0G +0.25pF	0.0150	0.0049	0.0029	0.0028	0.0025

Ceramic Capacitors SMD 0603

		1-9	10-99	100-999	1000-3999	4000+
C0603 1.2pF 50V C0G	1.2pF 50V C0G +0.25pF	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 1.5pF 50V C0G	1.5pF 50V C0G +0.25pF	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 1.8pF 50V C0G	1.8pF 50V C0G +0.25pF	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 2.0pF 50V C0G	2.0pF 50V C0G +0.25pF	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 2.2pF 50V C0G	2.2pF 50V C0G +0.25pF	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 2.7pF 50V C0G	2.7pF 50V C0G +0.25pF	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 3.0pF 50V C0G	3.0pF 50V C0G +0.25pF	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 3.3pF 50V C0G	3.3pF 50V C0G +0.25pF	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 3.9pF 50V C0G	3.9pF 50V C0G +0.25pF	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 4.0pF 50V C0G	4.0pF 50V C0G +0.25pF	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 4.7pF 50V C0G	4.7pF 50V C0G +0.25pF	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 5.0pF 50V C0G	5.0pF 50V C0G +0.25pF	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 5.6pF 50V C0G	5.6pF 50V C0G +0.25pF	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 6.0pF 50V C0G	6.0pF 50V C0G +0.5pF	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 6.8pF 50V C0G	6.8pF 50V C0G +0.25pF	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 7.0pF 50V C0G	7.0pF 50V C0G +0.5pF	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 8.0pF 50V C0G	8.0pF 50V C0G +0.5pF	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 8.2pF 50V C0G	8.2pF 50V C0G +0.5pF	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 9.0pF 50V C0G	9.0pF 50V C0G +0.25pF	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 10pF 50V C0G	10pF 50V C0G +5%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 11pF 50V C0G	11pF 50V C0G +5%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 12pF 50V C0G	12pF 50V C0G +5%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 13pF 50V C0G	13pF 50V C0G +5%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 15pF 50V C0G	15pF 50V C0G +5%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 16pF 50V C0G	16pF 50V C0G +5%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 18pF 50V C0G	18pF 50V C0G +5%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 20pF 50V C0G	20pF 50V C0G +5%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 22pF 50V C0G	22pF 50V C0G +5%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 24pF 50V C0G	24pF 50V C0G +5%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 27pF 50V C0G	27pF 50V C0G +5%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 30pF 50V C0G	30pF 50V C0G +5%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 33pF 50V C0G	33pF 50V C0G +5%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 36pF 50V C0G	36pF 50V C0G +5%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 39pF 50V C0G	39pF 50V C0G +5%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 43pF 50V C0G	43pF 50V C0G +5%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 47pF 50V C0G	47pF 50V C0G +5%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 56pF 50V C0G	56pF 50V C0G +5%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 68pF 50V C0G	68pF 50V C0G +5%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 82pF 50V C0G	82pF 50V C0G +5%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 100pF 50V C0G	100pF 50V C0G +5%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 120pF 50V C0G	120pF 50V C0G +5%	0.0200	0.0066	0.0040	0.0038	0.0033
C0603 150pF 50V C0G	150pF 50V C0G +5%	0.0200	0.0066	0.0040	0.0038	0.0033
C0603 180pF 50V C0G	180pF 50V C0G +5%	0.0200	0.0066	0.0040	0.0038	0.0033
C0603 220pF 50V C0G	220pF 50V C0G +5%	0.0200	0.0066	0.0040	0.0038	0.0033
C0603 270pF 50V C0G	270pF 50V C0G +5%	0.0260	0.0087	0.0052	0.0049	0.0043
C0603 330pF 50V C0G	330pF 50V C0G +5%	0.0290	0.0098	0.0059	0.0056	0.0049
C0603 330pF 50V X7R	330pF 50V X7R +10%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 390pF 50V C0G	390pF 50V C0G +5%	0.0360	0.0121	0.0073	0.0069	0.0061
C0603 470pF 50V X7R	470pF 50V X7R +10%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 680pF 50V C0G	680pF 50V C0G +5%	0.0430	0.0145	0.0087	0.0083	0.0072
C0603 1.0nF 50V X7R	1.0nF 50V X7R +10%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 1.5nF 50V X7R	1.5nF 50V X7R +10%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 2.2nF 50V X7R	2.2nF 50V X7R +10%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 2.2nF 50V Y5V	2.2nF 50V Y5V +80-20%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 3.3nF 50V X7R	3.3nF 50V X7R +10%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 4.7nF 50V X7R	4.7nF 50V X7R +10%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 5.6nF 50V X7R	5.6nF 50V X7R +10%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 6.8nF 50V X7R	6.8nF 50V X7R +10%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 10nF 50V X7R	10nF 50V X7R +10%	0.0150	0.0049	0.0029	0.0028	0.0025
C0603 22nF 50V X7R	22nF 50V X7R +10%	0.0200	0.0066	0.0040	0.0038	0.0033
C0603 33nF 25V X7R	33nF 25V X7R +10%	0.0280	0.0093	0.0056	0.0053	0.0047
C0603 33nF 50V X7R	33nF 50V X7R +10%	0.0290	0.0098	0.0056	0.0056	0.0049
C0603 47nF 25V X7R	47nF 25V X7R +10%	0.0290	0.0098	0.0059	0.0056	0.0049
C0603 47nF 50V X7R	47nF 50V X7R +10%	0.0310	0.0103	0.0062	0.0058	0.0051
C0603 47nF 50V Y5V	47nF 50V Y5V +80-20%	0.0150	0.0051	0.0031	0.0029	0.0026
C0603 100nF 50V Y5V	100nF 50V Y5V +80-20%	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 220nF 50V Y5V	220nF 50V Y5V +80-20%	0.0410	0.0138	0.0083	0.0079	0.0069

Ceramic Capacitors SMD 0805 SAMSUNG

		1-9	10-99	100-999	1000-3999	4000+
C0805 0.5pF 50V C0G SAMSUNG	0.5pF 50V C0G +0.25pF	0.0220	0.0072	0.0043	0.0041	0.0036
C0805 1.0pF 50V C0G SAMSUNG	1.0pF 50V C0G +0.25pF	0.0220	0.0072	0.0043	0.0041	0.0036
C0805 1.2pF 50V C0G SAMSUNG	1.2pF 50V C0G +0.25pF	0.0220	0.0072	0.0043	0.0041	0.0036
C0805 1.5pF 50V C0G SAMSUNG	1.5pF 50V C0G +0.25pF	0.0220	0.0072	0.0043	0.0041	0.0036
C0805 1.8pF 50V C0G SAMSUNG	1.8pF 50V C0G +0.25pF	0.0220	0.0072	0.0043	0.0041	0.0036
C0805 2.2pF 50V C0G SAMSUNG	2.2pF 50V C0G +0.25pF	0.0220	0.0072	0.0043	0.0041	0.0036
C0805 2.4pF 50V C0G SAMSUNG	2.4pF 50V C0G +0.25pF	0.0220	0.0072	0.0043	0.0041	0.0036
C0805 2.7pF 50V C0G SAMSUNG	2.7pF 50V C0G +0.25pF	0.0220	0.0072	0.0043	0.0041	0.0036
C0805 3.0pF 50V C0G SAMSUNG	3.0pF 50V C0G +0.25pF	0.0220	0.0072	0.0043	0.0041	0.0036
C0805 3.3pF 50V C0G SAMSUNG	3.3pF 50V C0G +0.25pF	0.0220	0.0072	0.0043	0.0041	0.0036
C0805 3.6pF 50V C0G SAMSUNG	3.6pF 50V C0G +0.25pF	0.0220	0.0072	0.0043	0.0041	0.0036
C0805 3.9pF 50V C0G SAMSUNG	3.9pF 50V C0G +0.25pF	0.0220	0.0072	0.0043	0.0041	0.0036

Ceramic Capacitors SMD 0805 SAMSUNG

			1-9	10-99	100-999	1000-3999	4000+
C0805 4.0pF 50V C0G SAMSUNG	4.0pF 50V C0G +0.25pF		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 4.7pF 50V C0G SAMSUNG	4.7pF 50V C0G +0.25pF		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 5.0pF 50V C0G SAMSUNG	5.0pF 50V C0G +0.25pF		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 5.6pF 50V C0G SAMSUNG	5.6pF 50V C0G +0.5pF		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 6.0pF 50V C0G SAMSUNG	6.0pF 50V C0G +0.5pF		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 6.8pF 50V C0G SAMSUNG	6.8pF 50V C0G +0.5pF		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 8.0pF 50V C0G SAMSUNG	8.0pF 50V C0G +0.5pF		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 8.2pF 50V C0G SAMSUNG	8.2pF 50V C0G +0.5pF		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 9.1pF 50V C0G SAMSUNG	9.1pF 50V C0G +0.5pF		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 10pF 50V C0G SAMSUNG	10pF 50V C0G +0.5pF		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 12pF 50V C0G SAMSUNG	12pF 50V C0G +5%		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 13pF 50V C0G SAMSUNG	13pF 50V C0G +5%		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 15pF 50V C0G SAMSUNG	15pF 50V C0G +5%		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 18pF 50V C0G SAMSUNG	18pF 50V C0G +5%		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 20pF 50V C0G SAMSUNG	20pF 50V C0G +5%		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 22pF 50V C0G SAMSUNG	22pF 50V C0G +5%		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 24pF 50V C0G SAMSUNG	24pF 50V C0G +5%		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 27pF 50V C0G SAMSUNG	27pF 50V C0G +5%		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 30pF 50V C0G SAMSUNG	30pF 50V C0G +5%		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 33pF 50V C0G SAMSUNG	33pF 50V C0G +5%		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 36pF 50V C0G SAMSUNG	36pF 50V C0G +5%		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 39pF 50V C0G SAMSUNG	39pF 50V C0G +5%		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 43pF 50V C0G SAMSUNG	43pF 50V C0G +5%		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 47pF 50V C0G SAMSUNG	47pF 50V C0G +5%		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 51pF 50V C0G SAMSUNG	51pF 50V C0G +5%		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 56pF 50V C0G SAMSUNG	56pF 50V C0G +5%		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 62pF 50V C0G SAMSUNG	62pF 50V C0G +5%		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 68pF 50V C0G SAMSUNG	68pF 50V C0G +5%		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 75pF 50V C0G SAMSUNG	75pF 50V C0G +5%		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 82pF 50V C0G SAMSUNG	82pF 50V C0G +5%		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 91pF 50V C0G SAMSUNG	91pF 50V C0G +5%		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 100pF 50V C0G SAMSUNG	100pF 50V C0G +5%		0.0220	0.0072	0.0043	0.0041	0.0036
C0805 120pF 50V C0G SAMSUNG	120pF 50V C0G +5%		0.0290	0.0097	0.0058	0.0055	0.0049
C0805 130pF 50V C0G SAMSUNG	130pF 50V C0G +5%		0.0310	0.0103	0.0062	0.0059	0.0052
C0805 150pF 50V C0G SAMSUNG	150pF 50V C0G +5%		0.0310	0.0102	0.0061	0.0058	0.0051
C0805 160pF 50V C0G SAMSUNG	160pF 50V C0G +5%		0.0310	0.0103	0.0062	0.0059	0.0051
C0805 180pF 50V C0G SAMSUNG	180pF 50V C0G +5%		0.0310	0.0103	0.0062	0.0059	0.0051
C0805 200pF 50V C0G SAMSUNG	200pF 50V C0G +5%		0.0310	0.0103	0.0062	0.0059	0.0051
C0805 220pF 50V C0G SAMSUNG	220pF 50V C0G +5%		0.0310	0.0103	0.0062	0.0059	0.0051
C0805 220pF 50V X7R SAMSUNG	220pF 50V X7R +10%		0.0210	0.0069	0.0042	0.0039	0.0035
C0805 240pF 50V C0G SAMSUNG	240pF 50V C0G +5%		0.0600	0.0200	0.0120	0.0114	0.0100
C0805 270pF 50V C0G SAMSUNG	270pF 50V C0G +5%		0.0330	0.0110	0.0066	0.0063	0.0055
C0805 330pF 50V C0G SAMSUNG	330pF 50V C0G +5%		0.0330	0.0110	0.0066	0.0063	0.0055
C0805 330pF 50V X7R SAMSUNG	330pF 50V X7R +10%		0.0210	0.0069	0.0042	0.0039	0.0035
C0805 390pF 50V C0G SAMSUNG	390pF 50V C0G +5%		0.0420	0.0141	0.0084	0.0080	0.0070
C0805 470pF 50V C0G SAMSUNG	470pF 50V C0G +5%		0.0420	0.0141	0.0084	0.0080	0.0070
C0805 470pF 50V X7R SAMSUNG	470pF 50V X7R +10%		0.0210	0.0069	0.0042	0.0039	0.0035
C0805 510pF 50V X7R SAMSUNG	510pF 50V X7R +10%		0.0210	0.0069	0.0042	0.0039	0.0035
C0805 560pF 50V C0G SAMSUNG	560pF 50V C0G +5%		0.0600	0.0201	0.0121	0.0115	0.0101
C0805 560pF 50V X7R SAMSUNG	560pF 50V X7R +10%		0.0210	0.0069	0.0042	0.0039	0.0035
C0805 680pF 50V C0G SAMSUNG	680pF 50V C0G +5%		0.0680	0.0220	0.0132	0.0125	0.0110
C0805 680pF 50V X7R SAMSUNG	680pF 50V X7R +10%		0.0210	0.0069	0.0042	0.0039	0.0035
C0805 820pF 50V C0G SAMSUNG	820pF 50V C0G +5%		0.0660	0.0220	0.0132	0.0125	0.0110
C0805 820pF 50V X7R SAMSUNG	820pF 50V X7R +10%		0.0210	0.0069	0.0042	0.0039	0.0035
C0805 1.0nF 50V C0G SAMSUNG	1.0nF 50V C0G +5%		0.0570	0.0191	0.0115	0.0109	0.0096
C0805 1.0nF 50V X7R SAMSUNG	1.0nF 50V X7R +10%		0.0210	0.0069	0.0042	0.0039	0.0035
C0805 1.2nF 50V C0G SAMSUNG	1.2nF 50V C0G +5%		0.0910	0.0304	0.0182	0.0173	0.0152
C0805 1.2nF 50V X7R SAMSUNG	1.2nF 50V X7R +10%		0.0210	0.0069	0.0042	0.0039	0.0035
C0805 1.5nF 50V X7R SAMSUNG	1.5nF 50V X7R +10%		0.0210	0.0069	0.0042	0.0039	0.0035
C0805 1.8nF 50V X7R SAMSUNG	1.8nF 50V X7R +10%		0.0210	0.0069	0.0042	0.0039	0.0035
C0805 2.2nF 50V C0G SAMSUNG	2.2nF 50V C0G +5%		0.1040	0.0348	0.0209	0.0198	0.0174
C0805 2.2nF 50V X7R SAMSUNG	2.2nF 50V X7R +10%		0.0210	0.0069	0.0042	0.0039	0.0035
C0805 2.7nF 50V X7R SAMSUNG	2.7nF 50V X7R +10%		0.0210	0.0069	0.0042	0.0039	0.0035
C0805 3.3nF 50V X7R SAMSUNG	3.3nF 50V X7R +10%		0.0210	0.0069	0.0042	0.0039	0.0035
C0805 3.9nF 50V X7R SAMSUNG	3.9nF 50V X7R +10%		0.0210	0.0069	0.0042	0.0039	0.0035
C0805 4.7nF 50V X7R SAMSUNG	4.7nF 50V X7R +10%		0.0210	0.0069	0.0042	0.0039	0.0035
C0805 5.6nF 50V X7R SAMSUNG	5.6nF 50V X7R +10%		0.0210	0.0069	0.0042	0.0039	0.0035
C0805 6.8nF 50V X7R SAMSUNG	6.8nF 50V X7R +10%		0.0210	0.0069	0.0042	0.0039	0.0035
C0805 8.2nF 50V X7R SAMSUNG	8.2nF 50V X7R +10%		0.0210	0.0069	0.0042	0.0039	0.0035
C0805 10nF 50V X7R SAMSUNG	10nF 50V X7R +10%		0.0210	0.0070	0.0042	0.0040	0.0035
C0805 10nF 100V X7R SAMSUNG	10nF 100V X7R +10%		0.0260	0.0088	0.0053	0.0050	0.0044
C0805 12nF 50V X7R SAMSUNG	12nF 50V X7R +10%		0.0300	0.0099	0.0060	0.0057	0.0050
C0805 15nF 50V X7R SAMSUNG	15nF 50V X7R +10%		0.0300	0.0099	0.0060	0.0057	0.0050
C0805 18nF 50V X7R SAMSUNG	18nF 50V X7R +10%		0.0300	0.0099	0.0060	0.0057	0.0050
C0805 22nF 50V X7R SAMSUNG	22nF 50V X7R +10%		0.0300	0.0099	0.0060	0.0057	0.0050
C0805 27nF 50V X7R SAMSUNG	27nF 50V X7R +10%		0.0310	0.0103	0.0062	0.0059	0.0051
C0805 33nF 50V X7R SAMSUNG	33nF 50V X7R +10%		0.0310	0.0103	0.0062	0.0059	0.0051
C0805 39nF 50V X7R SAMSUNG	39nF 50V X7R +10%		0.0380	0.0128	0.0077	0.0073	0.0064
C0805 47nF 50V X7R SAMSUNG	47nF 50V X7R +10%		0.0390	0.0129	0.0078	0.0074	0.0065
C0805 47nF 50V Y5V SAMSUNG	47nF 50V Y5V +80-20%		0.0270	0.0092	0.0055	0.0052	0.0046
C0805 56nF 50V X7R SAMSUNG	56nF 50V X7R +10%		0.0580	0.0194	0.0116	0.0111	0.0097
C0805 68nF 50V X7R SAMSUNG	68nF 50V X7R +10%		0.0580	0.0194	0.0116	0.0111	0.0097

Ceramic Capacitors SMD 0805 SAMSUNG

		1-9	10-99	100-999	1000-3999	4000+
C0805 68nF 50VY5V SAMSUNG	68nF 50VY5V +80-20%	0.0310	0.0104	0.0063	0.0059	0.0052
C0805 82nF 50V X7R SAMSUNG	82nF 50V X7R +10%	0.0670	0.0224	0.0134	0.0127	0.0112
C0805 100nF 50V X7R SAMSUNG	100nF 50V X7R +10%	0.0310	0.0102	0.0061	0.0058	0.0051
C0805 100nF 50VY5V SAMSUNG	100nF 50VY5V +80-20%	0.0220	0.0074	0.0044	0.0042	0.0037
C0805 150nF 50V X7R SAMSUNG	150nF 50V X7R +10%	0.0690	0.0231	0.0139	0.0132	0.0116
C0805 150nF 50VY5V SAMSUNG	150nF 50VY5V +80-20%	0.0500	0.0166	0.0100	0.0095	0.0083
C0805 220nF 50V X7R SAMSUNG	220nF 25V X7R +10%	0.0670	0.0224	0.0134	0.0128	0.0112
C0805 220nF 50VY5V SAMSUNG	220nF 50VY5V +80-20%	0.0500	0.0167	0.0100	0.0095	0.0083
C0805 330nF 50VY5V SAMSUNG	330nF 50VY5V +80-20%	0.0630	0.0209	0.0125	0.0119	0.0104
C0805 470nF 50VY5V SAMSUNG	470nF 50VY5V +80-20%	0.0630	0.0209	0.0125	0.0119	0.0104
C0805 1.0uF 16VY5V SAMSUNG	1.0uF 16VY5V +80-20%	0.0500	0.0167	0.0100	0.0095	0.0084
C0805 1.0uF 50VY5V SAMSUNG	1.0uF 50VY5V +80-20%	0.0520	0.0172	0.0103	0.0098	0.0086
C0805 2.2uF 16VY5V SAMSUNG	2.2uF 16VY5V +80-20%	0.0960	0.0319	0.0191	0.0182	0.0159

Ceramic Capacitors SMD 0805

		1-9	10-99	100-999	1000-3999	4000+
C0805 0.5pF 50V C0G	0.5pF 50V C0G +0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 1.0pF 50V C0G	1.0pF 50V C0G +0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 1.2pF 50V C0G	1.2pF 50V C0G +0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 1.5pF 50V C0G	1.5pF 50V C0G +0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 1.8pF 50V C0G	1.8pF 50V C0G +0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 2.2pF 50V C0G	2.2pF 50V C0G +0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 2.4pF 50V C0G	2.4pF 50V C0G +0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 2.7pF 50V C0G	2.7pF 50V C0G +0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 3.0pF 50V C0G	3.0pF 50V C0G +0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 3.3pF 50V C0G	3.3pF 50V C0G +0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 3.6pF 50V C0G	3.6pF 50V C0G +0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 3.9pF 50V C0G	3.9pF 50V C0G +0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 4.0pF 50V C0G	4.0pF 50V C0G +0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 4.7pF 50V C0G	4.7pF 50V C0G +0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 5.0pF 50V C0G	5.0pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 5.5pF 50V C0G	5.6pF 50V C0G +0.5pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 6.0pF 50V C0G	6.0pF 50V C0G +0.5pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 6.8pF 50V C0G	6.8pF 50V C0G +0.5pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 8.0pF 50V C0G	8.0pF 50V C0G +0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 8.2pF 50V C0G	8.2pF 50V C0G +0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 9.0pF 50V C0G	9.0pF 50V C0G +0.5pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 9.1pF 50V C0G	9.1pF 50V C0G +0.5pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 10pF 50V C0G	10pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 12pF 50V C0G	12pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 13pF 50V C0G	13pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 15pF 50V C0G	15pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 18pF 50V C0G	18pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 20pF 50V C0G	20pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 22pF 50V C0G	22pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 24pF 50V C0G	24pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 27pF 50V C0G	27pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 33pF 50V C0G	33pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 36pF 50V C0G	36pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 39pF 50V C0G	39pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 43pF 50V C0G	43pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 47pF 50V C0G	47pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 51pF 50V C0G	51pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 56pF 50V C0G	56pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 62pF 50V C0G	62pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 68pF 50V C0G	68pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 75pF 50V C0G	75pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 82pF 50V C0G	82pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 91pF 50V C0G	91pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 100pF 50V C0G	100pF 50V C0G +5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 150pF 50V C0G	150pF 50V C0G +5%	0.0250	0.0082	0.0049	0.0047	0.0041
C0805 160pF 50V C0G	160pF 50V C0G +5%	0.0250	0.0082	0.0049	0.0047	0.0041
C0805 180pF 50V C0G	180pF 50V C0G +5%	0.0260	0.0087	0.0052	0.0049	0.0043
C0805 200pF 50V C0G	200pF 50V C0G +5%	0.0260	0.0087	0.0052	0.0049	0.0043
C0805 220pF 50V C0G	220pF 50V C0G +5%	0.0310	0.0103	0.0062	0.0059	0.0051
C0805 220pF 50V X7R	220pF 50V X7R +10%	0.0200	0.0066	0.0040	0.0038	0.0033
C0805 240pF 50V C0G	240pF 50V C0G +5%	0.0400	0.0133	0.0080	0.0076	0.0067
C0805 270pF 50V C0G	270pF 50V C0G +5%	0.0320	0.0107	0.0064	0.0061	0.0053
C0805 330pF 50V C0G	330pF 50V C0G +5%	0.0320	0.0107	0.0064	0.0061	0.0053
C0805 330pF 50V X7R	330pF 50V X7R +10%	0.0200	0.0066	0.0040	0.0038	0.0033
C0805 390pF 50V C0G	390pF 50V C0G +5%	0.0390	0.0130	0.0078	0.0074	0.0065
C0805 470pF 50V C0G	470pF 50V C0G +5%	0.0420	0.0139	0.0084	0.0079	0.0070
C0805 470pF 50V X7R	470pF 50V X7R +10%	0.0200	0.0066	0.0040	0.0038	0.0033
C0805 510pF 50V X7R	510pF 50V X7R +10%	0.0200	0.0066	0.0040	0.0038	0.0033
C0805 560pF 50V C0G	560pF 50V C0G +5%	0.0560	0.0185	0.0111	0.0106	0.0093
C0805 560pF 50V X7R	560pF 50V X7R +10%	0.0200	0.0066	0.0040	0.0038	0.0033
C0805 680pF 50V C0G	680pF 50V C0G +5%	0.0570	0.0192	0.0115	0.0109	0.0096
C0805 680pF 50V X7R	680pF 50V X7R +10%	0.0200	0.0066	0.0040	0.0038	0.0033
C0805 820pF 50V C0G	820pF 50V C0G +5%	0.0610	0.0203	0.0122	0.0116	0.0101
C0805 820pF 50V X7R	820pF 50V X7R +10%	0.0200	0.0066	0.0040	0.0038	0.0033
C0805 1.0nF 50V C0G	1.0nF 50V C0G +5%	0.0570	0.0191	0.0115	0.0109	0.0096
C0805 1.0nF 50V X7R	1.0nF 50V X7R +10%	0.0200	0.0066	0.0040	0.0038	0.0033

Ceramic Capacitors SMD 0805

		1-9	10-99	100-999	1000-3999	4000+
C0805 1.2nF 50V X7R	1.2nF 50V X7R +10%	0.0200	0.0066	0.0040	0.0038	0.0033
C0805 1.5nF 50V X7R	1.5nF 50V X7R +10%	0.0200	0.0066	0.0040	0.0038	0.0033
C0805 2.2nF 50V X7R	2.2nF 50V X7R +10%	0.0200	0.0066	0.0040	0.0038	0.0033
C0805 2.7nF 50V X7R	2.7nF 50V X7R +10%	0.0200	0.0066	0.0040	0.0038	0.0033
C0805 3.3nF 50V X7R	3.3nF 50V X7R +10%	0.0200	0.0066	0.0040	0.0038	0.0033
C0805 4.7nF 50V X7R	4.7nF 50V X7R +10%	0.0200	0.0066	0.0040	0.0038	0.0033
C0805 5.6nF 50V X7R	5.6nF 50V X7R +10%	0.0200	0.0066	0.0040	0.0038	0.0033
C0805 10nF 50V X7R	10nF 50V X7R +10%	0.0200	0.0066	0.0040	0.0038	0.0033
C0805 10nF 100V X7R	10nF 100V X7R +10%	0.0620	0.0206	0.0124	0.0118	0.0103
C0805 10nF 250V X7R	10nF 250V X7R +10%	0.1420	0.0474	0.0284	0.0270	0.0237
C0805 12nF 50V X7R	12nF 50V X7R +10%	0.0300	0.0099	0.0059	0.0056	0.0050
C0805 15nF 50V X7R	15nF 50V X7R +10%	0.0300	0.0099	0.0059	0.0056	0.0050
C0805 22nF 50V X7R	22nF 50V X7R +10%	0.0300	0.0099	0.0059	0.0056	0.0050
C0805 22nF 100V X7R	22nF 100V X7R +10%	0.1540	0.0514	0.0309	0.0293	0.0257
C0805 27nF 50V X7R	27nF 50V X7R +10%	0.0310	0.0103	0.0062	0.0059	0.0052
C0805 33nF 50V X7R	33nF 50V X7R +10%	0.0310	0.0104	0.0062	0.0059	0.0052
C0805 47nF 50V X7R	47nF 50V X7R +10%	0.0390	0.0130	0.0078	0.0074	0.0065
C0805 47nF 50VY5V	47nF 50VY5V +80-20%	0.0210	0.0071	0.0043	0.0041	0.0036
C0805 56nF 50V X7R	56nF 50V X7R +10%	0.0580	0.0194	0.0116	0.0110	0.0097
C0805 68nF 50V X7R	68nF 50V X7R +10%	0.0580	0.0194	0.0116	0.0110	0.0097
C0805 68nF 50VY5V	68nF 50VY5V +80-20%	0.0210	0.0071	0.0043	0.0041	0.0036
C0805 82nF 50V X7R	82nF 50V X7R +10%	0.0670	0.0225	0.0135	0.0128	0.0112
C0805 100nF 50V X7R	100nF 50V X7R +10%	0.0310	0.0104	0.0062	0.0059	0.0052
C0805 100nF 50VY5V	100nF 50VY5V +80-20%	0.0200	0.0066	0.0040	0.0038	0.0033
C0805 150nF 25V X7R	150nF 25V X7R +10%	0.0650	0.0215	0.0129	0.0123	0.0108
C0805 150nF 50V X7R	150nF 50V X7R +10%	0.0670	0.0222	0.0133	0.0127	0.0111
C0805 150nF 50VY5V	150nF 50VY5V +80-20%	0.0500	0.0166	0.0099	0.0095	0.0083
C0805 220nF 25V X7R	220nF 25V X7R +10%	0.0660	0.0220	0.0132	0.0126	0.0110
C0805 220nF 50V X7R	220nF 50V X7R +10%	0.0670	0.0222	0.0133	0.0127	0.0111
C0805 220nF 50VY5V	220nF 50VY5V +80-20%	0.0500	0.0167	0.0100	0.0095	0.0084
C0805 330nF 25V Y5V	330nF 25V Y5V +80-20%	0.0560	0.0185	0.0111	0.0106	0.0093
C0805 330nF 50V Y5V	330nF 50V Y5V +80-20%	0.0620	0.0208	0.0125	0.0118	0.0104
C0805 470nF 50VY5V	470nF 50VY5V +80-20%	0.0620	0.0208	0.0125	0.0118	0.0104
C0805 680nF 16V Y5V	680nF 16V Y5V +80-20%	0.0620	0.0208	0.0125	0.0118	0.0104
C0805 680nF 50VY5V	680nF 50VY5V +80-20%	0.0620	0.0208	0.0125	0.0118	0.0104
C0805 1.0uF 16VY5V	1.0uF 16VY5V +80-20%	0.0500	0.0166	0.0100	0.0095	0.0083
C0805 1.0uF 25VY5V	1.0uF 25VY5V +80-20%	0.0510	0.0170	0.0102	0.0097	0.0085
C0805 1.0uF 50VY5V	1.0uF 50VY5V +80-20%	0.0510	0.0171	0.0103	0.0098	0.0086
C0805 2.2uF 16VY5V	2.2uF 16VY5V +80-20%	0.1130	0.0376	0.0225	0.0214	0.0188

Ceramic Capacitors SMD 1206 SAMSUNG

		1-9	10-99	100-999	1000-3999	4000+
C1206 1.0pF 50V C0G SAMSUNG	1.0pF 50V C0G +0.25pF	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 1.5pF 50V C0G SAMSUNG	1.5pF 50V C0G +0.25pF	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 2.2pF 50V C0G SAMSUNG	2.2pF 50V C0G +0.25pF	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 3.3pF 50V C0G SAMSUNG	3.3pF 50V C0G +0.25pF	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 4.7pF 50V C0G SAMSUNG	4.7pF 50V C0G +0.25pF	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 6.8pF 50V C0G SAMSUNG	6.8pF 50V C0G +0.5pF	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 10pF 50V C0G SAMSUNG	10pF 50V C0G +0.5pF	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 12pF 50V C0G SAMSUNG	12pF 50V C0G +5%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 15pF 50V C0G SAMSUNG	15pF 50V C0G +5%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 18pF 50V C0G SAMSUNG	18pF 50V C0G +5%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 22pF 50V C0G SAMSUNG	22pF 50V C0G +5%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 27pF 50V C0G SAMSUNG	27pF 50V C0G +5%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 33pF 50V C0G SAMSUNG	33pF 50V C0G +5%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 47pF 50V C0G SAMSUNG	47pF 50V C0G +5%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 56pF 50V C0G SAMSUNG	56pF 50V C0G +5%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 68pF 50V C0G SAMSUNG	68pF 50V C0G +5%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 82pF 50V C0G SAMSUNG	82pF 50V C0G +5%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 100pF 50V C0G SAMSUNG	100pF 50V C0G +5%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 150pF 50V C0G SAMSUNG	150pF 50V C0G +5%	0.0680	0.0227	0.0136	0.0129	0.0114
C1206 220pF 50V C0G SAMSUNG	220pF 50V C0G +5%	0.0690	0.0230	0.0138	0.0131	0.0115
C1206 220pF 50V X7R SAMSUNG	220pF 50V X7R +10%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 270pF 50V C0G SAMSUNG	270pF 50V C0G +5%	0.0700	0.0235	0.0141	0.0134	0.0117
C1206 330pF 50V C0G SAMSUNG	330pF 50V C0G +5%	0.0760	0.0253	0.0152	0.0144	0.0126
C1206 330pF 50V X7R SAMSUNG	330pF 50V X7R +10%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 470pF 50V C0G SAMSUNG	470pF 50V C0G +5%	0.0850	0.0282	0.0169	0.0161	0.0141
C1206 470pF 50V X7R SAMSUNG	470pF 50V X7R +10%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 560pF 50V C0G SAMSUNG	560pF 50V C0G +5%	0.0910	0.0304	0.0182	0.0173	0.0152
C1206 560pF 50V X7R SAMSUNG	560pF 50V X7R +10%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 680pF 50V C0G SAMSUNG	680pF 50V C0G +5%	0.0910	0.0304	0.0182	0.0173	0.0152
C1206 680pF 50V X7R SAMSUNG	680pF 50V X7R +10%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 820pF 50V C0G SAMSUNG	820pF 50V C0G +5%	0.0990	0.0330	0.0198	0.0188	0.0165
C1206 820pF 50V X7R SAMSUNG	820pF 50V X7R +10%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 1.0nF 50V C0G SAMSUNG	1.0nF 50V C0G +5%	0.0990	0.0330	0.0198	0.0188	0.0165
C1206 1.0nF 50V X7R SAMSUNG	1.0nF 50V X7R +10%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 1.0nF 100V X7R SAMSUNG	1.0nF 100V X7R +10%	0.0740	0.0248	0.0149	0.0141	0.0124
C1206 1.5nF 50V X7R SAMSUNG	1.5nF 50V X7R +10%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 2.2nF 50V X7R SAMSUNG	2.2nF 50V X7R +10%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 3.3nF 50V X7R SAMSUNG	3.3nF 50V X7R +10%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 4.7nF 50V X7R SAMSUNG	4.7nF 50V X7R +10%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 6.8nF 50V X7R SAMSUNG	6.8nF 50V X7R +10%	0.0580	0.0194	0.0116	0.0110	0.0097

Ceramic Capacitors SMD 1206 SAMSUNG

1-9 10-99 100-999 1000-3999 4000+

C1206 10nF 50V X7R SAMSUNG	10nF 50V X7R +10%	0.0580	0.0194	0.0116	0.0110	0.0097
C1206 10nF 100V X7R SAMSUNG	10nF 100V X7R +10%	0.0700	0.0235	0.0141	0.0134	0.0117
C1206 15nF 50V X7R SAMSUNG	15nF 50V X7R +10%	0.0610	0.0204	0.0122	0.0116	0.0102
C1206 22nF 50V X7R SAMSUNG	22nF 50V X7R +10%	0.0610	0.0204	0.0122	0.0116	0.0102
C1206 22nF 100V X7R SAMSUNG	22nF 100V X7R +10%	0.0790	0.0262	0.0157	0.0149	0.0131
C1206 33nF 50V X7R SAMSUNG	33nF 50V X7R +10%	0.0690	0.0231	0.0139	0.0132	0.0116
C1206 47nF 50V X7R SAMSUNG	47nF 50V X7R +10%	0.0720	0.0239	0.0144	0.0136	0.0120
C1206 47nF 50V Y5V SAMSUNG	47nF 50V Y5V +80-20%	0.0560	0.0187	0.0112	0.0107	0.0094
C1206 68nF 50V X7R SAMSUNG	68nF 50V X7R +10%	0.0900	0.0299	0.0180	0.0171	0.0150
C1206 100nF 50V X7R SAMSUNG	100nF 50V X7R +10%	0.0610	0.0204	0.0122	0.0116	0.0102
C1206 100nF 50V Y5V SAMSUNG	100nF 50V Y5V +80-20%	0.0560	0.0187	0.0112	0.0107	0.0094
C1206 100nF 100V X7R SAMSUNG	100nF 100V X7R +10%	0.0770	0.0255	0.0153	0.0146	0.0128
C1206 150nF 50V Y5V SAMSUNG	150nF 50V Y5V +80-20%	0.0720	0.0241	0.0145	0.0138	0.0121
C1206 220nF 50V X7R SAMSUNG	220nF 50V X7R +10%	0.1290	0.0432	0.0259	0.0246	0.0216
C1206 220nF 50V Y5V SAMSUNG	220nF 50V Y5V +80-20%	0.0800	0.0267	0.0160	0.0152	0.0134
C1206 330nF 50V X7R SAMSUNG	330nF 50V X7R +10%	0.1140	0.0381	0.0228	0.0217	0.0190
C1206 330nF 50V Y5V SAMSUNG	330nF 50V Y5V +80-20%	0.0980	0.0326	0.0196	0.0186	0.0163
C1206 470nF 50V X7R SAMSUNG	470nF 50V X7R +10%	0.1140	0.0381	0.0228	0.0217	0.0190
C1206 470nF 50V Y5V SAMSUNG	470nF 50V Y5V +80-20%	0.1120	0.0374	0.0224	0.0213	0.0187
C1206 1.0uF 25V X7R SAMSUNG	1.0uF 25V X7R +10%	0.1040	0.0348	0.0209	0.0198	0.0174
C1206 1.0uF 50V X7R SAMSUNG	1.0uF 50V X7R +10%	0.1840	0.0612	0.0367	0.0349	0.0306
C1206 1.0uF 50V Y5V SAMSUNG	1.0uF 50V Y5V +80-20%	0.0840	0.0279	0.0167	0.0159	0.0139
C1206 10uF 10V Y5V SAMSUNG	10uF 10V Y5V +80-20%	0.1350	0.0451	0.0271	0.0257	0.0226

Ceramic Capacitors SMD 1206

1-9 10-99 100-999 1000-3999 4000+

C1206 1.0pF 50V C0G	1.0pF 50V C0G +0.25pF	0.0570	0.0190	0.0114	0.0108	0.0095
C1206 1.5pF 50V C0G	1.5pF 50V C0G +0.25pF	0.0570	0.0190	0.0114	0.0108	0.0095
C1206 2.2pF 50V C0G	2.2pF 50V C0G +0.25pF	0.0570	0.0190	0.0114	0.0108	0.0095
C1206 3.3pF 50V C0G	3.3pF 50V C0G +0.25pF	0.0570	0.0190	0.0114	0.0108	0.0095
C1206 4.7pF 50V C0G	4.7pF 50V C0G +0.25pF	0.0570	0.0190	0.0114	0.0108	0.0095
C1206 6.8pF 50V C0G	6.8pF 50V C0G +0.5pF	0.0570	0.0190	0.0114	0.0108	0.0095
C1206 10pF 50V C0G	10pF 50V C0G +5%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 12pF 50V C0G	12pF 50V C0G +5%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 15pF 50V C0G	15pF 50V C0G +5%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 18pF 50V C0G	18pF 50V C0G +5%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 22pF 50V C0G	22pF 50V C0G +5%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 27pF 50V C0G	27pF 50V C0G +5%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 33pF 50V C0G	33pF 50V C0G +5%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 47pF 50V C0G	47pF 50V C0G +5%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 56pF 50V C0G	56pF 50V C0G +5%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 68pF 50V C0G	68pF 50V C0G +5%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 82pF 50V C0G	82pF 50V C0G +5%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 100pF 50V C0G	100pF 50V C0G +5%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 150pF 50V C0G	150pF 50V C0G +5%	0.0680	0.0227	0.0136	0.0130	0.0114
C1206 220pF 50V C0G	220pF 50V C0G +5%	0.0680	0.0227	0.0136	0.0130	0.0114
C1206 220pF 50V X7R	220pF 50V X7R +10%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 270pF 50V C0G	270pF 50V C0G +5%	0.0680	0.0227	0.0136	0.0130	0.0114
C1206 330pF 50V C0G	330pF 50V C0G +5%	0.0760	0.0252	0.0151	0.0144	0.0126
C1206 330pF 50V X7R	330pF 50V X7R +5%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 470pF 50V C0G	470pF 50V C0G +5%	0.0830	0.0277	0.0166	0.0158	0.0138
C1206 470pF 50V X7R	470pF 50V X7R +10%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 560pF 50V C0G	560pF 50V C0G +5%	0.0900	0.0302	0.0181	0.0172	0.0151
C1206 560pF 50V X7R	560pF 50V X7R +10%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 680pF 50V X7R	680pF 50V X7R +10%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 820pF 50V X7R	820pF 50V X7R +10%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 1.0nF 50V X7R	1.0nF 50V X7R +10%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 1.5nF 50V X7R	1.5nF 50V X7R +10%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 2.2nF 50V X7R	2.2nF 50V X7R +10%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 3.3nF 50V X7R	3.3nF 50V X7R +10%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 4.7nF 50V X7R	4.7nF 50V X7R +10%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 4.7nF 250V X7R	4.7nF 250V X7R +10%	0.1500	0.0499	0.0300	0.0285	0.0250
C1206 6.8nF 50V X7R	6.8nF 50V X7R +10%	0.0530	0.0177	0.0106	0.0101	0.0088
C1206 6.8nF 250V X7R	6.8nF 250V X7R +10%	0.1650	0.0549	0.0329	0.0313	0.0274
C1206 6.8nF 500V X7R	6.8nF 500V X7R +10%	0.2440	0.0812	0.0487	0.0463	0.0406
C1206 10nF 50V X7R	10nF 50V X7R +10%	0.0580	0.0193	0.0116	0.0110	0.0096
C1206 10nF 100V X7R	10nF 100V X7R +10%	0.0980	0.0327	0.0196	0.0186	0.0163
C1206 15nF 50V X7R	15nF 50V X7R +10%	0.0610	0.0203	0.0122	0.0116	0.0101
C1206 22nF 50V X7R	22nF 50V X7R +10%	0.0610	0.0203	0.0122	0.0116	0.0101
C1206 22nF 100V X7R	22nF 100V X7R +10%	0.1860	0.0621	0.0373	0.0354	0.0311
C1206 22nF 250V X7R	22nF 250V X7R +10%	0.2240	0.0747	0.0448	0.0426	0.0373
C1206 33nF 50V X7R	33nF 50V X7R +10%	0.0680	0.0227	0.0136	0.0130	0.0114
C1206 47nF 50V Y5V	47nF 50V Y5V +80-20%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 47nF 250V X7R	47nF 250V X7R +10%	0.2680	0.0895	0.0537	0.0510	0.0447
C1206 68nF 50V X7R	68nF 50V X7R +10%	0.0850	0.0284	0.0171	0.0162	0.0142
C1206 100nF 50V Y5V	100nF 50V Y5V +80-20%	0.0430	0.0145	0.0087	0.0082	0.0072
C1206 220nF 25V X7R	220nF 25V X7R +10%	0.1280	0.0425	0.0255	0.0242	0.0213
C1206 220nF 50V X7R	220nF 50V X7R +10%	0.1290	0.0429	0.0257	0.0244	0.0214
C1206 330nF 50V Y5V	330nF 50V Y5V +80-20%	0.0960	0.0321	0.0193	0.0183	0.0160
C1206 470nF 50V Y5V	470nF 50V Y5V +80-20%	0.0970	0.0323	0.0194	0.0184	0.0162
C1206 1.0uF 25V Y5V	1.0uF 25V Y5V +80-20%	0.1180	0.0395	0.0237	0.0225	0.0197
C1206 1.0uF 50V Y5V	1.0uF 50V Y5V +80-20%	0.1100	0.0367	0.0220	0.0209	0.0184

Ceramic Capacitors SMD 1206

C1206 2.2uF 16V X7R	2.2uF 16V X7R +10%	0.2540	0.0845	0.0507	0.0482	0.0423
C1206 2.2uF 25V Y5V	2.2uF 25V Y5V +80-20%	0.1700	0.0567	0.0340	0.0323	0.0284
C1206 2.2uF 50V X7R	2.2uF 50V X7R +10%	0.3020	0.1007	0.0604	0.0574	0.0503

Trimmer Capacitors

CVN605 5pF BLUE /TSC6/	trimmer-cap. 2 - 5pF Q>500(1MHz)	0.097	0.080	0.075	0.067	
CVN610 10pF WHITE	trimmer-cap. 3 - 10pF Q>500(1MHz)	0.098	0.082	0.077	0.068	
CVN630 30pF GREEN	trimmer-cap. 6.2 - 30pF Q>500(1MHz)	0.098	0.082	0.077	0.068	
CVN650 50pF BROWN	trimmer-cap. 9.8 - 50pF Q>300(1MHz)	0.098	0.082	0.077	0.068	
CTCS3S 2.2-6pF BLUE SMD	trimmer-cap. 2.2 - 6pF Q>500(1MHz) SMD; 3mm	0.184	0.153	0.143	0.127	
CTCS3S 3.5-10pF WHITE SMD	trimmer-cap. 3.5 - 10pF Q>500(1MHz) SMD; 3mm	0.184	0.153	0.143	0.127	
CTZ3E-40C-W1-PF 40pF SMD	trimmer-cap. 7 - 40pF washable SMD	0.529	0.440	0.412	0.365	



CVN605 - син



CVN610 - бял



CVN630 - зелен



CVN650 - кафяв

Ceramic Disc Capacitors

CD 1pF 50V NP0	1pF 50V NP0 +0.25pF	0.0200	0.0071	0.0053	0.0047	0.0041
CD 1.5pF 50V NP0	1.5pF 50V NP0 +0.25pF	0.0200	0.0071	0.0053	0.0047	0.0041
CD 2.2pF 50V NP0	2.2pF 50V NP0 +0.25pF	0.0200	0.0071	0.0053	0.0047	0.0041
CD 2.7pF 50V NP0	2.7pF 50V NP0 +0.25pF	0.0200	0.0071	0.0053	0.0047	0.0041
CD 3.3pF 50V NP0	3.3pF 50V NP0 +0.25pF	0.0200	0.0071	0.0053	0.0047	0.0041
CD 4.7pF 50V NP0	4.7pF 50V NP0 +0.25pF	0.0200	0.0071	0.0053	0.0047	0.0041
CD 6.8pF 50V NP0	6.8pF 50V NP0 +0.5pF	0.0200	0.0071	0.0053	0.0047	0.0041
CD 8.2pF 50V NP0	8.2pF 50V NP0 +0.5pF	0.0200	0.0071	0.0053	0.0047	0.0041
CD 10pF 50V NP0	10pF 50V NP0 +5%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 12pF 50V NP0	12pF 50V NP0 +5%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 15pF 50V NP0	15pF 50V NP0 +5%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 20pF 50V NP0	20pF 50V NP0 +5%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 22pF 50V NP0	22pF 50V NP0 +5%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 27pF 50V NP0	27pF 50V NP0 +5%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 33pF 50V NP0	33pF 50V NP0 +5%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 47pF 50V NP0	47pF 50V NP0 +5%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 68pF 50V NP0	68pF 50V NP0 +5%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 82pF 50V NP0	82pF 50V NP0 +5%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 100pF 50V NP0	100pF 50V NP0 +5%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 150pF 50V Y5P	150pF 50V Y5P +10%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 220pF 50V Y5P	220pF 50V Y5P +10%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 330pF 50V Y5P	330pF 50V Y5P +10%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 470pF 50V Y5P	470pF 50V Y5P +10%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 680pF 50V Y5P	680pF 50V Y5P +10%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 1.0nF 50V Y5P	1.0nF 50V Y5P +10%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 4.7nF 50V Y5V	4.7nF 50V Y5V +80-20%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 10nF 50V Y5V	10nF 50V Y5V +80-20%	0.0200	0.0071	0.0053	0.0047	0.0041

Multilayer Ceramic Capacitors

CML 10pF 50V NP0	10pF 50V NP0 +5% P2.54	0.046	0.021	0.015	0.015	0.013
CML 12pF 50V NP0	12pF 50V NP0 +5% P2.54	0.046	0.021	0.015	0.015	0.013
CML 15pF 50V NP0	15pF 50V NP0 +5% P2.54	0.046	0.021	0.015	0.015	0.013
CML 18pF 50V NP0	18pF 50V NP0 +5% P2.54	0.046	0.021	0.015	0.015	0.013
CML 20pF 50V NP0	20pF 50V NP0 +5% P2.54	0.046	0.021	0.015	0.015	0.013
CML 22pF 50V NP0	22pF 50V NP0 +5% P2.54	0.046	0.021	0.015	0.015	0.013
CML 27pF 50V NP0	27pF 50V NP0 +5% P2.54	0.046	0.021	0.015	0.015	0.013
CML 33pF 50V NP0	33pF 50V NP0 +5% P2.54	0.046	0.021	0.015	0.015	0.013
CML 47pF 50V NP0	47pF 50V NP0 +5% P2.54	0.046	0.021	0.015	0.015	0.013
CML 68pF 50V NP0	68pF 50V NP0 +5% P2.54	0.046	0.021	0.015	0.015	0.013
CML 82pF 50V NP0	82pF 50V NP0 +5% P2.54	0.046	0.021	0.015	0.015	0.013
CML 100pF 50V NP0	100pF 50V NP0 +10% P2.54	0.044	0.020	0.015	0.014	0.013
CML 150pF 50V X7R	150pF 50V X7R +10% P2.54	0.044	0.020	0.015	0.014	0.013
CML 220pF 50V X7R	220pF 50V X7R +10% P2.54	0.044	0.020	0.015	0.014	0.013
CML 330pF 50V X7R	330pF 50V X7R +10% P2.54	0.044	0.020	0.015	0.014	0.013
CML 470pF 50V X7R	470pF 50V X7R +10% P2.54	0.044	0.020	0.015	0.014	0.013
CML 680pF 50V X7R	680pF 50V X7R +10% P2.54	0.044	0.020	0.015	0.014	0.013
CML 820pF 50V X7R	820pF 50V X7R +10% P2.54	0.044	0.020	0.015	0.014	0.013
CML 1.0nF 50V X7R P2.5	1nF 50V X7R +10% P2.54	0.044	0.020	0.015	0.014	0.013
CML 1.0nF 50V X7R P5	1nF 50V X7R +10% P5.08	0.044	0.020	0.015	0.014	0.013
CML 1.5nF 50V X7R P2.5	1.5nF 50V X7R +10% P2.54	0.044	0.020	0.015	0.014	0.013
CML 2.2nF 50V X7R P2.5	2.2nF 50V X7R +10% P2.54	0.044	0.020	0.015	0.014	0.013
CML 3.3nF 50V X7R P2.5	3.3nF 50V X7R +10% P2.54	0.044	0.020	0.015	0.014	0.013
CML 4.7nF 50V X7R P2.5	4.7nF 50V X7R +10% P2.54	0.044	0.020	0.015	0.014	0.013
CML 6.8nF 50V X7R P2.5	6.8nF 50V X7R +10% P2.54	0.044	0.020	0.015	0.014	0.013

Multilayer Ceramic Capacitors

		1-9	10-99	100-999	1000-3999	4000+
CML 10nF 50V X7R P2.5	10nF 50V X7R +/-10% P2.54	0.044	0.020	0.015	0.014	0.013
CML 10nF 50V Y5V P2.5	10nF 50V Y5V +/-20% P2.54	0.039	0.018	0.013	0.012	0.011
CML 15nF 50V Y5V P2.5	15nF 50V Y5V +/-20% P2.54	0.039	0.018	0.013	0.012	0.011
CML 22nF 50V Y5V P2.5	22nF 50V Y5V +/-20% P2.54	0.039	0.018	0.013	0.012	0.011
CML 22nF 50V Y5V P5	22nF 50V Y5V +/-20% P5.08	0.039	0.018	0.013	0.012	0.011
CML 27nF 50V Y5V P2.5	27nF 50V Y5V +/-20% P2.54	0.039	0.018	0.013	0.012	0.011
CML 33nF 50V Y5V P2.5	33nF 50V Y5V +/-20% P2.54	0.039	0.018	0.013	0.012	0.011
CML 47nF 50V Y5V P2.5	47nF 50V Y5V +/-20% P2.54	0.039	0.018	0.013	0.012	0.011
CML 68nF 50V Y5V P2.5	68nF 50V Y5V +/-20% P2.54	0.039	0.018	0.013	0.012	0.011
CML 100nF 50V X7R P2.5	100nF 50V X7R +/-10% P2.54	0.075	0.034	0.025	0.023	0.021
CML 100nF 50V X7R P5	100nF 50V X7R +/-10% P5	0.075	0.034	0.025	0.023	0.021
CML 100nF 50V Y5V P2.5	100nF 50V Y5V +/-20% P2.5	0.039	0.018	0.013	0.012	0.011
CML 100nF 50V Y5V P5	100nF 50V Y5V +/-20% P5	0.039	0.018	0.013	0.012	0.011
CML 100nF 100V X7R P5	100nF 100V X7R +/-10% P5	0.144	0.066	0.047	0.045	0.041
CML 220nF 50V X7R P5	220nF 50V X7R +/-10% P5	0.141	0.064	0.046	0.044	0.040
CML 220nF 50V Y5V P2.5	220nF 50V Y5V +/-80-20% P5	0.066	0.030	0.022	0.021	0.019
CML 220nF 50V Y5V P5	220nF 50V Y5V +/-80-20% P5	0.066	0.030	0.022	0.021	0.019
CML 330nF 50V P5	330nF 50V Y5V +/-80-20% P5	0.076	0.035	0.025	0.024	0.022
CML 470nF 50V X7R P5	470nF 50V X7R +/-10% P5	0.253	0.116	0.083	0.079	0.072
CML 470nF 50V Y5V P5	470nF 50V Y5V +/-80-20% P5	0.076	0.035	0.025	0.024	0.022
CML 680nF 50V P5	680nF 50V Y5V +/-80-20% P5	0.092	0.042	0.030	0.029	0.026
CML 1.0uF 50V X7R P5	1.0uF 50V X7R +/-10% P5	0.253	0.116	0.083	0.079	0.072
CML 1.0uF 50V Y5V P5	1.0uF 50V Y5V +/-80-20% P5	0.076	0.035	0.025	0.024	0.022

High Voltage Ceramic Capacitors

		1-9	10-99	100-999	1000-3999	4000+
CDHV 2.2nF 500V Y5P	2.2nF 500V DISC Y5P+/-10%	0.078	0.036	0.026	0.025	0.022
CDHV 100pF 1000V Y5P	100pF 1000V DISC Y5P+/-10%	0.067	0.031	0.022	0.021	0.019
CDHV 150pF 1000V Y5P	150pF 1000V DISC Y5P+/-10%	0.067	0.031	0.022	0.021	0.019
CDHV 220pF 1000V Y5P	220pF 1000V DISC Y5P+/-10%	0.116	0.053	0.038	0.036	0.033
CDHV 10nF 1000V Y5U	10nF 1000V DISC Y5U +/-20% P7.5	0.189	0.086	0.062	0.059	0.054
CDHV 2.2nF 2000V Y5P	2.2nF 2000V DISC Y5P+/-10%	0.216	0.099	0.071	0.068	0.062

Capacitors MPT111 (TS05)

		1-9	10-99	100-499	500+	2000+
CP 1nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.051	0.046	0.042	0.039	0.036
CP 1nF 100V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.051	0.046	0.042	0.039	0.036
CP 1.5nF 100V MPT111	Polyester Multilayer Cap. MPT111 7.5x2.5x6.5 P5	0.051	0.046	0.042	0.039	0.036
CP 2.2nF 100V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.051	0.046	0.042	0.039	0.036
CP 3.3nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.051	0.046	0.042	0.039	0.036
CP 4.7nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.051	0.046	0.042	0.039	0.036
CP 4.7nF 100V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.051	0.046	0.042	0.039	0.036
CP 10nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.051	0.046	0.042	0.039	0.036
CP 10nF 100V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.051	0.046	0.042	0.039	0.036
CP 22nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.051	0.046	0.042	0.039	0.036
CP 22nF 100V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.051	0.046	0.042	0.039	0.036
CP 33nF 63V MPT111	Polyester Multilayer Cap. MPT111 7.5x2.5x6.5 P5	0.051	0.046	0.042	0.039	0.036
CP 33nF 100V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.051	0.046	0.042	0.039	0.036
CP 47nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.051	0.046	0.042	0.039	0.036
CP 47nF 100V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.051	0.046	0.042	0.039	0.036
CP 68nF 63V MPT111	Polyester Multilayer Cap. MPT111 7.5x2.5x6.5 P5	0.036	0.033	0.030	0.028	0.026
CP 100nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.060	0.054	0.050	0.046	0.043
CP 100nF 100V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.063	0.056	0.052	0.048	0.045
CP 150nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.063	0.056	0.052	0.048	0.045
CP 220nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.082	0.074	0.068	0.063	0.058
CP 330nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.101	0.091	0.084	0.078	0.072
CP 470nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.120	0.108	0.100	0.093	0.086
CP 1uF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.274	0.247	0.227	0.212	0.196

Capacitors MPT221 (KMΠΤ)

		1-9	10-99	100-499	500+	2000+
CP 100nF 250V 10% MPT221	Polyester Capacitor MPT221	0.065	0.059	0.054	0.050	0.047
CP 100nF 250V 10% TS02	Polyester Capacitor TS02	0.062	0.056	0.051	0.048	0.044
CP 100nF 400V 10% MPT221	Polyester Capacitor MPT221	0.114	0.102	0.094	0.088	0.081
CP 100nF 400V 10% TS02	Polyester Capacitor TS02	0.104	0.094	0.086	0.080	0.074
CP 220nF 400V 10% MPT221	Polyester Capacitor MPT221	0.158	0.143	0.131	0.122	0.113
CP 220nF 400V 10% TS02	Polyester Capacitor TS02	0.118	0.106	0.097	0.091	0.084
CP 330nF 400V 10% TS02	Polyester Capacitor TS02	0.111	0.100	0.092	0.086	0.080
CP 470nF 400V 10% MPT221	Polyester Capacitor MPT221	0.195	0.175	0.161	0.150	0.139
CP 470nF 400V 10% TS02	Polyester Capacitor TS02	0.132	0.119	0.110	0.102	0.095
CP 1uF 160V 10% MPT221	Polyester Capacitor MPT221	0.138	0.124	0.114	0.106	0.099
CP 1uF 250V 10% MPT221	Polyester Capacitor MPT221	0.175	0.157	0.145	0.135	0.125
CP 1uF 400V 10% MPT221	Polyester Capacitor MPT221	0.336	0.303	0.279	0.260	0.240
CP 2.2uF 250V 20% MPT221	Polyester Capacitor MPT221	0.294	0.265	0.244	0.227	0.210

Capacitors X2; Y1

		1-9	10-99	100-999	1000+
CX2 100nF 275VAC 10%	Polypropylene X2cap. 18x13.5x6 RM15	0.112	0.092	0.079	0.072
CX2 150nF 275VAC 10%	Polypropylene X2cap. 18x14.5x8.5 RM15	0.156	0.129	0.111	0.101
CX2 220nF 275VAC 10%	Polypropylene X2cap. 26.5x16.5x7 RM22.5	0.190	0.157	0.135	0.123
CX2 330nF 275VAC 10%	Polypropylene X2cap. 26.5x19x10 RM22.5	0.275	0.227	0.195	0.177
CX2 470nF 275VAC 20%	Polypropylene X2cap. 26.5x19x10 RM22.5	0.295	0.244	0.209	0.190
CY1 1nF 400VAC 20%	Y1 cap. D=9 RM10	0.086	0.071	0.061	0.056
CY1 2.2nF 400VAC 20%	Y1 cap. D=12 RM7.5	0.086	0.071	0.061	0.056

Capacitors WIMA

		1-9	10-99	100-999	1000+
CW 10nF 2000Vdc 10% FKP1	Polypropylene 700Vac/1kHz 11x21x31.5 RM27.5	0.698	0.577	0.496	0.451
CW 100pF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 5x11x18 RM15	0.237	0.196	0.168	0.153
CW 150pF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 5x11x18 RM15	0.237	0.196	0.168	0.153
CW 220pF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 5x11x18 RM15	0.260	0.207	0.178	0.161
CW 330pF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 5x11x18 RM15	0.165	0.136	0.117	0.106
CW 470pF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 5x11x18 RM15	0.251	0.208	0.178	0.162
CW 680pF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 5x11x18 RM15	0.182	0.150	0.129	0.117
CW 1.0nF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 6x12.5x18 RM15	0.212	0.175	0.150	0.137
CW 1.5nF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 7x14x18 RM15	0.231	0.191	0.164	0.149
CW 2.2nF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 8x15x18 RM15	0.316	0.261	0.224	0.204
CW 3.3nF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 6x15x26.5 RM22.5	0.401	0.331	0.285	0.259
CW 4.7nF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 7x16.5x26.5 RM22.5	0.366	0.302	0.260	0.236
CW 10nF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 10.5x20.5x26.5 RM22.5	0.601	0.496	0.426	0.387
CW 1.0nF 1250Vdc 5% FKP1	Polypropylene 600Vac/1kHz 5x11x18 RM15	0.193	0.160	0.137	0.125
CW 2.2nF 1250Vdc 5% FKP1	Polypropylene 600Vac/1kHz 5x11x18 RM15	0.199	0.164	0.141	0.128
CW 4.7nF 1250Vdc 5% FKP1	Polypropylene 600Vac/1kHz 7x14x18 RM15	0.265	0.219	0.188	0.171
CW 6.8nF 1250Vdc 5% FKP1	Polypropylene 600Vac/1kHz 5x14x26.5 RM22.5	0.355	0.293	0.252	0.229
CW 100pF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 2.5x6.5x7.2 RM5	0.083	0.069	0.059	0.054
CW 150pF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 4.5x6x7.2 RM5	0.085	0.070	0.060	0.055
CW 220pF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 4.5x6x7.2 RM5	0.121	0.100	0.086	0.078
CW 330pF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 4.5x6x7.2 RM5	0.124	0.102	0.088	0.080
CW 470pF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 4.5x6x7.2 RM5	0.126	0.104	0.090	0.082
CW 680pF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 4.5x6x7.2 RM5	0.126	0.104	0.090	0.082
CW 1.0nF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 4.5x6x7.2 RM5	0.094	0.078	0.067	0.061
CW 1.5nF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 4.5x6x7.2 RM5	0.126	0.104	0.090	0.082
CW 2.2nF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 5.5x7x7.2 RM5	0.101	0.083	0.071	0.065
CW 3.3nF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 6.5x8x7.2 RM5	0.113	0.093	0.080	0.073
CW 4.7nF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 6.5x8x7.2 RM5	0.121	0.100	0.086	0.078
CW 6.8nF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 7.2x8.5x7.2 RM5	0.145	0.120	0.103	0.094
CW 10nF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 8.5x10x7.2 RM5	0.184	0.152	0.131	0.119
CW 470pF 100Vdc 10% FKP2	Polypropylene 63Vac/1kHz 4.5x6x7.2 RM5	0.101	0.084	0.072	0.065
CW 100nF 630Vdc 10% MKP4	Polypropylene 280Vac/400Hz 7x14x18 RM15	0.289	0.239	0.205	0.187
CW 2.2nF 1600Vdc 10% MKP10	Polypropylene 650Vac/1kHz 4x9x13 RM10	0.126	0.104	0.090	0.081
CW 1.0nF 1000Vdc 10% MKP10	Polypropylene 600Vac/1kHz 4x9x13 RM10	0.122	0.101	0.087	0.079
CW 1.5nF 1000Vdc 10% MKP10	Polypropylene 600Vac/1kHz 4x9x13 RM10	0.126	0.104	0.090	0.081
CW 3.3nF 1000Vdc 10% MKP10	Polypropylene 600Vac/1kHz 4x9x13 RM10	0.151	0.125	0.107	0.098
CW 10nF 1000Vdc 10% MKP10	Polypropylene 600Vac/1kHz 5x11x13 RM10	0.160	0.132	0.113	0.103
CW 22nF 630Vdc 10% MKP10	Polypropylene 400Vac/1kHz 6x12.5x13 RM10	0.195	0.161	0.138	0.126
CW 470nF 630Vdc 10% MKP10	Polypropylene 400Vac/1kHz 11x21x31.5 RM27.5	1.871	1.545	1.328	1.207
CW 10nF 400Vdc 10% MKP10	Polypropylene 250Vac/1kHz 4x9x10 RM7.5	0.155	0.128	0.110	0.100
CW 22nF 400Vdc 10% MKP10	Polypropylene 250Vac/1kHz 4x9x10 RM7.5	0.127	0.104	0.090	0.082
CW 47nF 400Vdc 10% MKP10	Polypropylene 250Vac/1kHz 5x11x18 RM15	0.169	0.140	0.120	0.109
CW 100nF 400Vdc 10% MKP10	Polypropylene 250Vac/1kHz 7x14x18 RM15	0.215	0.177	0.152	0.138
CW 220nF 400Vdc 10% MKP10	Polypropylene 250Vac/1kHz 7x16.5x26.5 RM22.5	0.385	0.318	0.273	0.248
CW 330nF 400Vdc 10% MKP10	Polypropylene 250Vac/1kHz 8.5x18.5x26.5 RM22.5	0.489	0.404	0.347	0.315
CW 470nF 400Vdc 10% MKP10	Polypropylene 250Vac/1kHz 10.5x19x26.5 RM22.5	0.794	0.655	0.563	0.512
CW 1.0uF 400Vdc 10% MKP10	Polypropylene 250Vac/1kHz 13x24x31.5 RM27.5	0.990	0.818	0.703	0.639
CW 1.0nF 400V 10% FKS2	Polyester Cap. 2.5x6.5x7.2 RM5	0.088	0.073	0.062	0.057
CW 1.5nF 400V 10% FKS2	Polyester Cap. 2.5x6.5x7.2 RM5	0.088	0.073	0.062	0.057
CW 2.2nF 400V 10% FKS2	Polyester Cap. 2.5x6.5x7.2 RM5	0.088	0.073	0.062	0.057
CW 3.3nF 400V 10% FKS2	Polyester Cap. 2.5x6.5x7.2 RM5	0.092	0.076	0.065	0.059
CW 4.7nF 400V 10% FKS2	Polyester Cap. 2.5x6.5x7.2 RM5	0.094	0.077	0.066	0.060
CW 6.8nF 400V 10% FKS2	Polyester Cap. 3x7.5x7.2 RM5	0.096	0.080	0.068	0.062
CW 10nF 400V 10% FKS2	Polyester Cap. 3.5x8.5x7.2 RM5	0.109	0.090	0.077	0.070
CW 15nF 400V 10% MKS4	Polyester Cap. 4x9x10 RM7.5	0.116	0.095	0.082	0.075
CW 22nF 400V 10% MKS4	Polyester Cap. 4x9x10 RM7.5	0.117	0.097	0.083	0.075
CW 33nF 400V 10% MKS4	Polyester Cap. 4x9x10 RM7.5	0.117	0.097	0.083	0.075
CW 47nF 400V 10% MKS4	Polyester Cap. 5.7x12.5x10.3 RM7.5	0.127	0.104	0.090	0.082
CW 68nF 400V 10% MKS4	Polyester Cap. 5x11x13 RM10	0.120	0.099	0.085	0.077
CW 100nF 400V 10% MKS4	Polyester Cap. 6x12.5x13 RM10	0.139	0.115	0.099	0.090
CW 150nF 400V 10% MKS4	Polyester Cap. 6x12x13 RM10	0.166	0.137	0.118	0.107
CW 220nF 400V 10% MKS4	Polyester Cap. 6x12x13 RM10	0.179	0.148	0.127	0.115
CW 330nF 400V 10% MKS4	Polyester Cap. 8x15x18 RM15	0.362	0.299	0.257	0.234
CW 470nF 400V 10% MKS4	Polyester Cap. 8x15x18 RM15	0.297	0.245	0.211	0.192
CW 680nF 400V 10% MKS4	Polyester Cap. 10.5x19x26.5 RM22.5	0.466	0.385	0.331	0.301
CW 1.0uF 400V 10% MKS4	Polyester Cap. 11x21x26.5 RM22.5	0.635	0.525	0.451	0.410
CW 1.5uF 400V 10% MKS4	Polyester Cap. 200Vac/50Hz 13x24x31.5 RM27.5	0.992	0.819	0.704	0.640
CW 3.3uF 400V 10% MKS4	Polyester Cap. 200Vac/50Hz 17x34.5x31.5 RM27.5	1.947	1.608	1.382	1.256
CW 10nF 250V 10% FKS2	Polyester Cap. 3x7.5x7.2 RM5	0.102	0.084	0.072	0.066
CW 15nF 250V 10% MKS2	Polyester Cap. 2.5x6.5x7.2 RM5	0.099	0.082	0.070	0.064
CW 22nF 250V 10% MKS2	Polyester Cap. 3x7.5x7.2 RM5	0.094	0.077	0.066	0.060
CW 33nF 250V 10% MKS2	Polyester Cap. 3.5x8.5x7.2 RM5	0.096	0.080	0.068	0.062
CW 47nF 250V 10% MKS2	Polyester Cap. 4.5x9.5x7.2 RM5	0.105	0.086	0.074	0.067
CW 68nF 250V 10% MKS2	Polyester Cap. 5x10x7.2 RM5	0.111	0.092	0.079	0.072

Capacitor WIMA

		1-9	10-99	100-999	1000+
CW 100nF 250V 10% MKS2	Polyester Cap. 5x10x7.2 RM5	0.131	0.108	0.093	0.084
CW 100nF 250V 10% MKS4	Polyester Cap. 4x9x10 RM7.5	0.124	0.102	0.088	0.080
CW 150nF 250V 10% MKS4	Polyester Cap. 5x10.5x10.3 RM7.5	0.140	0.116	0.100	0.091
CW 220nF 250V 10% MKS4	Polyester Cap. 5x10.5x10.3 RM7.5	0.176	0.145	0.125	0.114
CW 330nF 250V 10% MKS4	Polyester Cap. 5x11x13 RM10	0.177	0.147	0.126	0.114
CW 470nF 250V 10% MKS4	Polyester Cap. 6x12x13 RM10	0.217	0.179	0.154	0.140
CW 680nF 250V 10% MKS4	Polyester Cap. 7x14x18 RM15	0.279	0.231	0.198	0.180
CW 1.0uF 250V 10% MKS4	Polyester Cap. 9x16x18 RM15	0.395	0.327	0.281	0.255
CW 1.5uF 250V 10% MKS4	Polyester Cap. 7x16.5x26.5 RM22.5	0.601	0.496	0.426	0.387
CW 2.2uF 250V 10% MKS4	Polyester Cap. 10.5x19x26.5 RM22.5	0.824	0.680	0.585	0.532
CW 1.0nF 100V 10% FKS2	Polyester Cap. 2.5x6.5x7.2 RM5	0.088	0.073	0.062	0.057
CW 470nF 100V 10% MKS4	Polyester Cap. 4.5x9.5x10.3 RM7.5	0.220	0.181	0.156	0.142
CW 1.0uF 100V 10% MKS4	Polyester Cap. 5.7x12.5x10.3 RM7.5	0.264	0.218	0.187	0.170
CW 1.5uF 100V 10% MKS2	Polyester Cap. 8.5x14x7.2 RM5	0.327	0.270	0.232	0.211
CW 2.2uF 100V 10% MKS4	Polyester Cap. 8x15x18 RM15	0.465	0.384	0.330	0.300
CW 100nF 63V 10% MKS2	Polyester Cap. 2.5x6.5x7.2 RM5	0.078	0.065	0.056	0.051
CW 220nF 63V 10% MKS2	Polyester Cap. 3x7.5x7.2 RM5	0.109	0.090	0.077	0.070
CW 470nF 63V 10% MKS2	Polyester Cap. 4.5x9.5x7.2 RM5	0.147	0.122	0.104	0.095
CW 1.0uF 63V 10% MKS2	Polyester Cap. 5x10x7.2 RM5	0.209	0.173	0.148	0.135
CW 1.5uF 63V 10% MKS4	Polyester Cap. 5x11x13 RM10	0.392	0.324	0.278	0.253
CW 2.2uF 63V 10% MKS2	Polyester Cap. 7.2x13x7.2 RM5	0.860	0.710	0.610	0.555
CW 4.7uF 63V 10% MKS4	Polyester Cap. 7x14x18 RM15	0.720	0.595	0.511	0.465
CW 10uF 63V 10% MKS4	Polyester Cap. 8.5x18.5x26.5 RM22.5	2.096	1.731	1.487	1.352
CW 10nF 63V 10% MKS02	Polyester Cap. 2.5x7x4.6 RM2.5	0.133	0.110	0.095	0.086
CW 22nF 63V 10% MKS02	Polyester Cap. 2.5x7x4.6 RM2.5	0.142	0.117	0.101	0.091
CW 47nF 63V 10% MKS02	Polyester Cap. 2.5x7x4.6 RM2.5	0.150	0.124	0.106	0.097
CW 100nF 63V 10% MKS02	Polyester Cap. 3x7.5x4.6 RM2.5	0.151	0.125	0.107	0.098
CW 220nF 50V 10% MKS02	Polyester Cap. 3x7.5x4.6 RM2.5	0.230	0.190	0.163	0.148
CW 470nF 63V 10% MKS02	Polyester Cap. 4.6x9x4.6 RM2.5	0.349	0.289	0.248	0.225
CW 1.0uF 50V 10% MKS02	Polyester Cap. 5.5x10x4.6 RM2.5	0.520	0.429	0.369	0.335

Capacitors WIMA SMD

		1-9	10-99	100-999	1000+
CW 100nF 100Vdc SMD2220	Polyester film Cap. SMD2220 10%	0.308	0.254	0.219	0.199
CW 100nF 63Vdc 5% SMD2824	Polyester film Cap. SMD2824	0.411	0.340	0.292	0.265
CW 330nF 63Vdc 5% SMD2824	Polyester film Cap. SMD2824	0.551	0.455	0.391	0.356
CW 470nF 63Vdc 5% SMD2824	Polyester film Cap. SMD2824	0.631	0.521	0.448	0.407
CW 100nF 250Vdc SMD2824	Polyester film Cap. SMD2824 10%	0.406	0.335	0.288	0.262
CW 470nF 400Vdc SMD6560	Polyester film Cap. SMD6560 10%	0.585	0.483	0.415	0.377

Electrolytic capacitors - FUJICON

		1-9	10-99	100-499	500+	2000+
CE 1.0uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0172	0.0114	0.0101	0.0093	0.0086
CE 1.0uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0213	0.0140	0.0124	0.0115	0.0106
CE 1.0uF 100V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0214	0.0141	0.0125	0.0115	0.0107
CE 2.2uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0172	0.0114	0.0101	0.0093	0.0086
CE 2.2uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0180	0.0119	0.0105	0.0097	0.0090
CE 2.2uF 100V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0206	0.0136	0.0120	0.0111	0.0103
CE 3.3uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0170	0.0112	0.0100	0.0092	0.0085
CE 3.3uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0199	0.0131	0.0116	0.0107	0.0099
CE 3.3uF 100V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0238	0.0157	0.0139	0.0129	0.0119
CE 4.7uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0172	0.0114	0.0101	0.0093	0.0086
CE 4.7uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0193	0.0127	0.0113	0.0104	0.0096
CE 4.7uF 63V Suntan	electrolyt.cap., +/-20%, -40~85°C, 5x11mm RM2	0.0188	0.0124	0.0110	0.0102	0.0094
CE 4.7uF 100V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0206	0.0136	0.0120	0.0111	0.0103
CE 10uF 16V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0173	0.0114	0.0101	0.0093	0.0086
CE 10uF 16V Fujicon TR	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2.5	0.0225	0.0149	0.0132	0.0122	0.0113
CE 10uF 25V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0175	0.0116	0.0102	0.0095	0.0088
CE 10uF 25V Suntan	electrolyt.cap., +/-20%, -40~85°C, 5x11mm RM2	0.0176	0.0116	0.0103	0.0095	0.0088
CE 10uF 35V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0176	0.0116	0.0103	0.0095	0.0088
CE 10uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0186	0.0122	0.0109	0.0100	0.0093
CE 10uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0208	0.0137	0.0122	0.0112	0.0104
CE 10uF 100V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 6.3x11mm RM2.5	0.0246	0.0197	0.0180	0.0166	0.0154
CE 10uF 400V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 10x20mm RM5	0.1116	0.1004	0.0925	0.0861	0.0797
CE 22uF 16V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0175	0.0116	0.0102	0.0095	0.0088
CE 22uF 25V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0186	0.0122	0.0109	0.0100	0.0093
CE 22uF 25V Suntan	electrolyt.cap., +/-20%, -40~85°C, 5x11mm RM2	0.0181	0.0120	0.0106	0.0098	0.0091
CE 22uF 35V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0194	0.0128	0.0114	0.0105	0.0097
CE 22uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0214	0.0141	0.0125	0.0116	0.0107
CE 22uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 6.3x11mm RM2.5	0.0295	0.0195	0.0172	0.0159	0.0147
CE 22uF 100V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 8x11mm RM3.5	0.0423	0.0339	0.0310	0.0286	0.0265
CE 22uF 250V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 10x20mm RM5	0.1039	0.0935	0.0861	0.0802	0.0742
CE 22uF 350V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 13x25mm RM5	0.1680	0.1493	0.1331	0.1244	
CE 33uF 10V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0173	0.0114	0.0101	0.0093	0.0086
CE 33uF 16V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0175	0.0116	0.0102	0.0095	0.0088
CE 33uF 25V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0191	0.0126	0.0111	0.0103	0.0095
CE 33uF 35V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0207	0.0136	0.0121	0.0112	0.0103
CE 33uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 6.3x11mm RM2.5	0.0279	0.0184	0.0163	0.0151	0.0140
CE 33uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 6.3x11mm RM2.5	0.0363	0.0240	0.0212	0.0196	0.0182

Electrolytic capacitors - FUJICON

		1-9	10-99	100-499	500+	2000+
CE 33uF 100V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0750	0.0600	0.0548	0.0506	0.0469
CE 47uF 10V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0173	0.0114	0.0101	0.0093	0.0086
CE 47uF 16V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0175	0.0116	0.0102	0.0095	0.0088
CE 47uF 25V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0188	0.0124	0.0110	0.0102	0.0094
CE 47uF 25V Suntan	electrolyt.cap., +/-20%, -40~85°C, 5x11mm RM2	0.0191	0.0126	0.0112	0.0103	0.0095
CE 47uF 35V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 6.3x11mm RM2.5	0.0274	0.0181	0.0160	0.0148	0.0137
CE 47uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 6.3x12mm RM2.5	0.0287	0.0201	0.0186	0.0172	0.0159
CE 47uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0392	0.0314	0.0287	0.0265	0.0245
CE 47uF 100V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 10x12mm RM5	0.0762	0.0686	0.0632	0.0588	0.0545
CE 100uF 10V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0180	0.0119	0.0105	0.0097	0.0090
CE 100uF 10V Fujicon TR	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2.5	0.0230	0.0152	0.0134	0.0124	0.0115
CE 100uF 16V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0186	0.0123	0.0109	0.0101	0.0093
CE 100uF 25V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 6.3x11mm RM2.5	0.0280	0.0185	0.0164	0.0151	0.0140
CE 100uF 25V Suntan	electrolyt.cap., +/-20%, -40~85°C, 6.3x11mm RM2.5	0.0276	0.0182	0.0161	0.0149	0.0138
CE 100uF 35V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0398	0.0278	0.0258	0.0239	0.0221
CE 100uF 35V Fujicon TR	electrolyt.cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0449	0.0314	0.0292	0.0269	0.0249
CE 100uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0400	0.0320	0.0292	0.0270	0.0250
CE 100uF 50V Fujicon TR	electrolyt.cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0443	0.0355	0.0324	0.0299	0.0277
CE 100uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 8x16mm RM3.5	0.0604	0.0484	0.0442	0.0408	0.0378
CE 100uF 100V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 10x20mm RM5	0.1023	0.0920	0.0847	0.0789	0.0730
CE 220uF 10V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0228	0.0151	0.0134	0.0123	0.0114
CE 220uF 16V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 6.3x11mm RM2.5	0.0276	0.0182	0.0162	0.0149	0.0138
CE 220uF 16V Fujicon TR	electrolyt.cap. RA, 20%, -40~85°C, 8x11mm RM3.5	0.0494	0.0326	0.0289	0.0267	0.0247
CE 220uF 16V Suntan	electrolyt.cap., +/-20%, -40~85°C, 6.3x11mm RM2.5	0.0284	0.0188	0.0166	0.0154	0.0142
CE 220uF 25V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0416	0.0291	0.0270	0.0249	0.0231
CE 220uF 35V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 8x14mm RM3.5	0.0542	0.0380	0.0352	0.0325	0.0301
CE 220uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 10x17mm RM5	0.0778	0.0622	0.0569	0.0525	0.0486
CE 220uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 10x17mm RM5	0.0906	0.0815	0.0750	0.0699	0.0647
CE 220uF 100V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 13x25mm RM5	0.2004	0.1803	0.1660	0.1546	0.1431
CE 330uF 10V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 6.3x12mm RM2.5	0.0336	0.0222	0.0197	0.0181	0.0168
CE 330uF 16V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0440	0.0290	0.0257	0.0238	0.0220
CE 330uF 25V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 8x14mm RM3.5	0.0491	0.0344	0.0319	0.0295	0.0273
CE 330uF 35V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 10x17mm RM5	0.0889	0.0623	0.0578	0.0534	0.0494
CE 330uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 10x20mm RM5	0.1106	0.0885	0.0809	0.0747	0.0691
CE 330uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 13x21mm RM5	0.1544	0.1389	0.1279	0.1191	0.1103
CE 330uF 100V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 16x26mm RM7.5	0.3508	0.3157	0.2906	0.2706	0.2505
CE 470uF 10V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 8x11mm RM3.5	0.0414	0.0273	0.0242	0.0224	0.0207
CE 470uF 10V Fujicon TR	electrolyt.cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0472	0.0312	0.0276	0.0255	0.0236
CE 470uF 16V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0424	0.0296	0.0275	0.0254	0.0235
CE 470uF 16V Suntan	electrolyt.cap., +/-20%, -40~85°C, 8x12mm RM3.5	0.0420	0.0294	0.0273	0.0252	0.0233
CE 470uF 25V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 8x16mm RM3.5	0.0625	0.0438	0.0407	0.0375	0.0347
CE 470uF 35V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 10x17mm RM5	0.0852	0.0682	0.0623	0.0575	0.0533
CE 470uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 13x21mm RM5	0.1364	0.1238	0.1052	0.0974	
CE 470uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 13x25mm RM5	0.1803	0.1635	0.1391	0.1288	
CE 470uF 100V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 16x31mm RM7.5	0.4192	0.3727	0.3323	0.3105	
CE 1000uF 6.3V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0534	0.0353	0.0313	0.0289	0.0267
CE 1000uF 10V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 8x16mm RM3.5	0.0589	0.0388	0.0344	0.0318	0.0294
CE 1000uF 16V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 8x16mm RM3.5	0.0764	0.0535	0.0497	0.0458	0.0424
CE 1000uF 16V Suntan	electrolyt.cap., +/-20%, -40~85°C, 8x16mm RM3.5	0.0747	0.0523	0.0486	0.0448	0.0415
CE 1000uF 25V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 10x20mm RM5	0.1127	0.0789	0.0733	0.0676	0.0626
CE 1000uF 35V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 13x21mm RM5	0.1676	0.1341	0.1225	0.1131	0.1047
CE 1000uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 13x25mm RM5	0.2140	0.1941	0.1651	0.1528	
CE 1000uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 16x26mm RM7.5	0.3019	0.2738	0.2329	0.2156	
CE 2200uF 10V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 18x40mm RM7.5	0.7888	0.7011	0.6252	0.5843	
CE 2200uF 16V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 10x20mm RM5	0.0851	0.0772	0.0657	0.0608	
CE 2200uF 16V Suntan	electrolyt.cap. RA, 20%, -40~85°C, 13x21mm RM5	0.1414	0.1283	0.1091	0.1010	
CE 2200uF 25V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 13x25mm RM5	0.1675	0.1520	0.1292	0.1197	
CE 2200uF 25V Suntan	electrolyt.cap., +/-20%, -40~85°C, 13x25mm RM5	0.1747	0.1584	0.1347	0.1248	
CE 2200uF 35V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 16x26mm RM7.5	0.2609	0.2366	0.2012	0.1863	
CE 2200uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 16x35mm RM7.5	0.3983	0.3613	0.3072	0.2845	
CE 2200uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 18x40mm RM7.5	0.6430	0.5715	0.5096	0.4763	
CE 3300uF 10V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 13x21mm RM5	0.1247	0.1131	0.0962	0.0891	
CE 3300uF 16V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 13x25mm RM5	0.1620	0.1469	0.1249	0.1157	
CE 3300uF 25V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 16x26mm RM7.5	0.2687	0.2438	0.2073	0.1920	
CE 3300uF 35V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 16x35mm RM7.5	0.4006	0.3634	0.3090	0.2861	
CE 3300uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 18x40mm RM7.5	0.5681	0.5154	0.4383	0.4058	
CE 3300uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 22x40mm RM7.5	1.1613	1.0323	0.9205	0.8602	
CE 4700uF 10V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 13x24mm RM5	0.1865	0.1692	0.1438	0.1332	
CE 4700uF 16V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 16x26mm RM7.5	0.2656	0.2409	0.2049	0.1897	
CE 4700uF 25V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 16x31mm RM7.5	0.3510	0.3184	0.2708	0.2507	
CE 4700uF 35V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 18x40mm RM7.5	0.5549	0.5034	0.4281	0.3964	
CE 4700uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 22x40mm RM10	0.7648	0.6798	0.6062	0.5665	
CE 4700uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 25x40mm RM10	1.3004	1.1559	1.0307	0.9633	
CE 10000uF 10V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 16x36mm RM7.5	0.3613	0.3278	0.2788	0.2581	
CE 10000uF 16V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 18x36mm RM7.5	0.5249	0.4762	0.4050	0.3750	
CE 10000uF 25V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 22x40mm RM10	0.7423	0.6598	0.5883	0.5498	
CE 1.0uF 50V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0200	0.0132	0.0117	0.0108	0.0100
CE 1.0uF 63V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0217	0.0143	0.0127	0.0117	0.0109
CE 1.0uF 100V 105C Fujicon	electrolyt.cap. RA, 20%, -40~105°C, 5x11mm RM2	0.0220	0.0145	0.0129	0.0119	0.0110
CE 2.2uF 50V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0200	0.0132	0.0117	0.0108	0.0100
CE 2.2uF 63V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0209	0.0138	0.0122	0.0113	0.0105

Electrolytic capacitors - FUJICON

		1-9	10-99	100-499	500+	2000+
CE 4.7uF 50V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 5x11mm RM2	0.0200	0.0132	0.0117	0.0108	0.0100
CE 10uF 16V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 5x11mm RM2	0.0193	0.0127	0.0113	0.0104	0.0097
CE 10uF 35V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 5x11mm RM2	0.0197	0.0130	0.0116	0.0107	0.0099
CE 10uF 50V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 5x11mm RM2	0.0200	0.0132	0.0117	0.0108	0.0100
CE 10uF 63V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 5x11mm RM2	0.0245	0.0162	0.0143	0.0132	0.0123
CE 10uF 100V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 6.3x11mm RM2.5	0.0265	0.0212	0.0194	0.0179	0.0166
CE 10uF 400V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 13x20mm RM5.0	0.1306	0.1175	0.1082	0.1007	0.0933
CE 22uF 16V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 5x11mm RM2	0.0193	0.0127	0.0113	0.0104	0.0097
CE 22uF 25V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 5x11mm RM2	0.0199	0.0132	0.0117	0.0108	0.0100
CE 22uF 35V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 5x11mm RM2	0.0206	0.0136	0.0120	0.0111	0.0103
CE 22uF 50V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 5x11mm RM2	0.0223	0.0147	0.0130	0.0120	0.0111
CE 22uF 63V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 6.3x11mm RM2.5	0.0323	0.0213	0.0189	0.0175	0.0162
CE 22uF 100V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 8x11mm RM3.5	0.0453	0.0362	0.0331	0.0306	0.0283
CE 22uF 250V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 10x20mm RM5	0.1156	0.1040	0.0958	0.0892	0.0826
CE 22uF 400V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 13x26mm RM5	0.2242	0.1993	0.1777	0.1661	
CE 33uF 16V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 5x11mm RM2	0.0200	0.0132	0.0117	0.0108	0.0100
CE 33uF 25V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 5x11mm RM2	0.0216	0.0142	0.0126	0.0117	0.0108
CE 33uF 35V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 5x11mm RM2	0.0223	0.0148	0.0131	0.0121	0.0112
CE 47uF 16V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 5x11mm RM2	0.0200	0.0132	0.0117	0.0108	0.0100
CE 47uF 25V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 5x11mm RM2	0.0218	0.0144	0.0127	0.0118	0.0109
CE 47uF 35V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 6.3x11mm RM2.5	0.0310	0.0205	0.0181	0.0167	0.0155
CE 47uF 50V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 6.3x11mm RM2.5	0.0376	0.0263	0.0244	0.0225	0.0209
CE 47uF 63V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 8x12mm RM3.5	0.0426	0.0341	0.0311	0.0287	0.0266
CE 47uF 100V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 10x17mm RM5	0.0819	0.0737	0.0679	0.0632	0.0585
CE 47uF 400V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 16x31mm RM7.5	0.4293	0.3816	0.3402	0.3180	
CE 100uF 10V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 5x11mm RM2	0.0191	0.0126	0.0112	0.0103	0.0096
CE 100uF 16V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 5x11mm RM2	0.0230	0.0152	0.0135	0.0124	0.0115
CE 100uF 16V 105C Suntan	electrolyt.cap., +/-20%,-40~105°C, 5x11mm RM2	0.0229	0.0151	0.0134	0.0123	0.0114
CE 100uF 25V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 6.3x11mm RM2.5	0.0317	0.0209	0.0185	0.0171	0.0158
CE 100uF 35V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 8x12mm RM3.5	0.0441	0.0309	0.0286	0.0264	0.0245
CE 100uF 50V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 8x12mm RM3.5	0.0434	0.0347	0.0317	0.0293	0.0271
CE 100uF 63V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 8x16mm RM3.5	0.0693	0.0555	0.0507	0.0468	0.0433
CE 100uF 100V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 13x20mm RM5	0.1102	0.0992	0.0913	0.0850	0.0787
CE 220uF 10V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 6.3x11mm RM2.5	0.0273	0.0180	0.0159	0.0147	0.0136
CE 220uF 16V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 6.3x11mm RM2.5	0.0276	0.0182	0.0162	0.0149	0.0138
CE 220uF 25V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 8x12mm RM3.5	0.0425	0.0297	0.0276	0.0255	0.0236
CE 220uF 35V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 8x16mm RM3.5	0.0581	0.0407	0.0378	0.0349	0.0323
CE 220uF 50V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 10x17mm RM5.0	0.0878	0.0702	0.0642	0.0593	0.0549
CE 220uF 63V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 10x20mm RM5	0.1155	0.1039	0.0957	0.0891	0.0825
CE 220uF 100V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 16x25mm RM7.5	0.2185	0.1967	0.1810	0.1686	0.1561
CE 220uF 200V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 18x32mm RM7.5	0.5479	0.4970	0.4226	0.3913	
CE 330uF 10V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 8x12mm RM3.5	0.0395	0.0261	0.0231	0.0213	0.0197
CE 330uF 16V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 8x12mm RM3.5	0.0508	0.0336	0.0297	0.0275	0.0254
CE 330uF 25V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 8x16mm RM3.5	0.0608	0.0425	0.0395	0.0365	0.0338
CE 330uF 50V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 10x20mm RM5	0.1320	0.1056	0.0965	0.0891	0.0825
CE 330uF 63V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 13x21mm RM5	0.1772	0.1595	0.1469	0.1367	0.1266
CE 330uF 100V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 16x25mm RM7.5	0.3654	0.3288	0.3027	0.2819	0.2610
CE 470uF 10V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 8x12mm RM3.5	0.0519	0.0343	0.0304	0.0280	0.0260
CE 470uF 16V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 8x14mm RM3.5	0.0456	0.0319	0.0296	0.0273	0.0253
CE 470uF 25V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 10x17mm RM5	0.0698	0.0488	0.0453	0.0419	0.0388
CE 470uF 35V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 10x20mm RM5	0.1061	0.0849	0.0776	0.0716	0.0663
CE 470uF 50V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 10x20mm RM5	0.1376	0.1248	0.1061	0.0983	
CE 470uF 63V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 13x25mm RM5	0.1951	0.1770	0.1505	0.1393	
CE 470uF 100V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 16x31mm RM7.5	0.4431	0.3939	0.3512	0.3282	
CE 470uF 16V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 22x40mm RM10	1.0263	0.9123	0.8135	0.7602	
CE 470uF 6.3V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 8x14mm RM3.5	0.0554	0.0365	0.0324	0.0299	0.0277
CE 1000uF 10V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 10x17mm RM5	0.0731	0.0483	0.0428	0.0395	0.0366
CE 1000uF 16V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 10x20mm RM5	0.0820	0.0574	0.0533	0.0492	0.0455
CE 1000uF 25V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 13x21mm RM5	0.1302	0.0912	0.0846	0.0781	0.0723
CE 1000uF 35V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 13x25mm RM5	0.1810	0.1448	0.1323	0.1221	0.1131
CE 1000uF 50V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 16x25mm RM7.5	0.2614	0.2371	0.2017	0.1867	
CE 1000uF 63V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 16x31mm RM7.5	0.3954	0.3587	0.3051	0.2825	
CE 1000uF 100V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 18x40mm RM7.5	0.8368	0.7438	0.6632	0.6198	
CE 2200uF 10V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 13x21mm RM5	0.0934	0.0847	0.0720	0.0667	
CE 2200uF 16V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 13x25mm RM5	0.1563	0.1417	0.1205	0.1116	
CE 2200uF 25V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 16x25mm RM7.5	0.1830	0.1660	0.1411	0.1307	
CE 2200uF 35V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 16x31mm RM7.5	0.3155	0.2862	0.2434	0.2254	
CE 2200uF 50V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 18x35mm RM7.5	0.4623	0.4194	0.3567	0.3302	
CE 2200uF 63V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 22x40mm RM10	0.8403	0.7469	0.6660	0.6224	
CE 3300uF 10V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 18x25mm RM5.0	0.1457	0.1322	0.1124	0.1041	
CE 3300uF 50V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 18x40mm RM7.5	0.6059	0.5497	0.4674	0.4328	
CE 4700uF 10V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 13x30mm RM5.0	0.2084	0.1890	0.1608	0.1488	
CE 4700uF 16V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 16x31mm RM7.5	0.2922	0.2650	0.2254	0.2087	
CE 4700uF 25V 105C Fujicon	electrolyt.cap. RK, 20%,-40~105°C, 18x31mm RM7.5	0.3733	0.3387	0.2880	0.2667	
CE 100uF 25V 105C LOW ESR-Fujicon	<i>el.cap. TM, 20%,-40~105°C, 6.3x11mm RM2.5, 0.33Ohm</i>	0.0391	0.0258	0.0229	0.0211	0.0195
CE 100uF 35V 105C LOW ESR-Fujicon	<i>el.cap. TM, 20%,-40~105°C, 8x12mm RM3.5, 0.26Ohm</i>	0.0541	0.0357	0.0317	0.0292	0.0271
CE 100uF 50V 105C LOW ESR-Fujicon	<i>el.cap. TM, 20%,-40~105°C, 8x16mm RM3.5, 0.22Ohm</i>	0.0730	0.0481	0.0427	0.0394	0.0365
CE 100uF 63V 105C LOW ESR-Fujicon	<i>el.cap. TM, 20%,-40~105°C, 10x17mm RM5.0, 0.027Ohm</i>	0.1124	0.0742	0.0657	0.0607	0.0562
CE 220uF 25V 105C LOW ESR-Fujicon	<i>el.cap. TM, 20%,-40~105°C, 8x16mm RM3.5, 0.250hOhm</i>	0.0611	0.0404	0.0358	0.0330	0.0306
CE 220uF 35V 105C LOW ESR-Fujicon	<i>el.cap. TM, 20%,-40~105°C, 8x16mm RM3.5, 0.200hOhm</i>	0.0956	0.0631	0.0559	0.0516	0.0478
CE 220uF 50V 105C LOW ESR-Fujicon	<i>el.cap. TM, 20%,-40~105°C, 10x17mm RM5.0, 0.16Ohm</i>	0.1280	0.0845	0.0749	0.0691	0.0640

Electrolytic capacitors - FUJICON

			1-9	10-99	100-499	500+	2000+
CE 330uF 63V 105C LOW ESR-Fujicon	el.cap. TM, 20%, -40~105°C, 13x21mm RM5.0, 0.060Ohm		0.2403	0.1682	0.1562	0.1442	0.1335
CE 470uF 16V 105C LOW ESR-Fujicon	el.cap. TM, 20%, -40~105°C, 10x12mm RM5.0, 0.100Ohm		0.0975	0.0644	0.0570	0.0527	0.0488
CE 1000uF 6.3V 105C LOW ESR-Fujicon	el.cap. TM, 20%, -40~105°C, 8x12mm RM3.5, 0.100Ohm		0.0898	0.0593	0.0526	0.0485	0.0449
CE 1000uF 16V 105C LOW ESR-Fujicon	el.cap. TM, 20%, -40~105°C, 10x20mm RM5.0, 0.0550Ohm		0.1416	0.0934	0.0828	0.0764	0.0708
CE 2200uF 6.3V 105C LOW ESR-Fujicon	el.cap. TM, 20%, -40~105°C, 10x20mm RM5.0, 0.070Ohm		0.1555	0.1026	0.0909	0.0840	0.0777
CE 3300uF 6.3V 105C LOW ESR-Fujicon	el.cap. TM, 20%, -40~105°C, 13x21mm RM5.0, 0.0400Ohm		0.2364	0.1655	0.1537	0.1419	0.1313
CE 47uF 400V 105C SNAP-IN Fujicon	el.cap. SK, -40~105°C, 22x25mm RM10		0.6620	0.5884	0.5247	0.4904	
CE 100uF 400V 105C SNAP-IN Fujicon	el.cap. SK, -40~105°C, 22x30mm RM10		1.0342	0.9193	0.8197	0.7661	
CE 220uF 200V 105C SNAP-IN Fujicon	el.cap. SK, -40~105°C, 22x25mm RM10		0.7516	0.6681	0.5957	0.5568	
CE 220uF 400V 105C SNAP-IN Fujicon	el.cap. SK, -40~105°C, 25x45mm RM10		1.8573	1.6510	1.4721	1.3758	
CE 470uF 400V 105C SNAP-IN Fujicon	el.cap. SK, -40~105°C, 35x46mm RM10		3.7002	3.2891	2.9327	2.7409	
CE 1.0uF 63V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 4x7mm RM1.5		0.0181	0.0119	0.0106	0.0098	0.0090
CE 2.2uF 63V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 4x7mm RM1.5		0.0181	0.0119	0.0106	0.0098	0.0090
CE 4.7uF 63V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 4x7mm RM1.5		0.0181	0.0119	0.0106	0.0098	0.0090
CE 10uF 35V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 4x7mm RM1.5		0.0181	0.0119	0.0106	0.0098	0.0090
CE 10uF 63V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 6.3x7mm RM2.5		0.0315	0.0208	0.0184	0.0170	0.0157
CE 22uF 35V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 5x7mm RM2		0.0254	0.0167	0.0148	0.0137	0.0127
CE 22uF 63V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 6.3x7mm RM2.5		0.0330	0.0218	0.0193	0.0178	0.0165
CE 47uF 10V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 4x7mm RM1.5		0.0182	0.0120	0.0107	0.0099	0.0091
CE 47uF 16V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 4x7mm RM1.5		0.0183	0.0121	0.0107	0.0099	0.0091
CE 47uF 50V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 8x9mm RM3.5		0.0656	0.0433	0.0384	0.0354	0.0328
CE 100uF 16V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 6.3x7mm RM2.5		0.0315	0.0208	0.0184	0.0170	0.0157
CE 100uF 25V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 8x7mm RM3.5		0.0633	0.0418	0.0370	0.0342	0.0317
CE 100uF 35V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 8x9mm RM3.5		0.0662	0.0437	0.0387	0.0358	0.0331
CE 220uF 6.3V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 6.3x7mm RM2.5		0.0311	0.0205	0.0182	0.0168	0.0156
CE 220uF 10V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 6.3x7mm RM2.5		0.0316	0.0208	0.0185	0.0170	0.0158
CE 220uF 16V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 8x7mm RM3.5		0.0580	0.0383	0.0340	0.0313	0.0290
CE 220uF 25V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 8x7mm RM3.5		0.0631	0.0416	0.0369	0.0341	0.0315

Electrolytic capacitors SMD - FUJICON

			1-9	10-99	100-499	500+	2000+
CE 1.0uF 50V SMD Fujicon	el.cap. CS D4xL5.4mm 20%, -40~85°C, base 4.3mm		0.0650	0.0430	0.0380	0.0350	0.0320
CE 2.2uF 50V SMD Fujicon	el.cap. CS D4xL5.4mm 20%, -40~85°C, base 4.3mm		0.0660	0.0440	0.0390	0.0360	0.0330
CE 3.3uF 50V SMD Fujicon	el.cap. CS D4xL5.4mm 20%, -40~85°C, base 4.3mm		0.0490	0.0330	0.0290	0.0270	0.0250
CE 4.7uF 35V SMD Fujicon	el.cap. CS D4xL5.4mm 20%, -40~85°C, base 4.3mm		0.0490	0.0330	0.0290	0.0270	0.0250
CE 4.7uF 50V SMD Fujicon	el.cap. CS D5xL5.4mm 20%, -40~85°C, base 5.3mm		0.0740	0.0490	0.0440	0.0400	0.0370
CE 10uF 16V SMD Fujicon	el.cap. CS D4xL5.4mm 20%, -40~85°C, base 4.3mm		0.0500	0.0330	0.0290	0.0270	0.0250
CE 10uF 35V SMD Fujicon	el.cap. CS D5xL5.4mm 20%, -40~85°C, base 5.3mm		0.0590	0.0390	0.0350	0.0320	0.0300
CE 10uF 50V SMD Fujicon	el.cap. CS D6.3xL5.4mm 20%, -40~85°C, base 6.6mm		0.0930	0.0610	0.0540	0.0500	0.0460
CE 10uF 100V SMD Fujicon	el.cap. CS D6.3xL7.7mm 20%, -40~85°C, base 6.6mm		0.1150	0.0800	0.0750	0.0690	0.0640
CE 22uF 16V SMD Fujicon	el.cap. CS D5xL5.4mm 20%, -40~85°C, base 5.3mm		0.0590	0.0390	0.0350	0.0320	0.0300
CE 22uF 35V SMD Fujicon	el.cap. CS D6.3xL5.4mm 20%, -40~85°C, base 6.6mm		0.0760	0.0500	0.0440	0.0410	0.0380
CE 47uF 25V SMD Fujicon	el.cap. CS D6.3xL5.4mm 20%, -40~85°C, base 6.6mm		0.0760	0.0500	0.0440	0.0410	0.0380
CE 47uF 35V SMD Fujicon	el.cap. CS D6.3xL5.4mm 20%, -40~85°C, base 6.6mm		0.0770	0.0510	0.0450	0.0420	0.0390
CE 47uF 50V SMD Fujicon	el.cap. CS D6.3xL7.7mm 20%, -40~85°C, base 6.6mm		0.1340	0.0890	0.0790	0.0720	0.0670
CE 100uF 16V SMD Fujicon	el.cap. CS D6.3xL5.4mm 20%, -40~85°C, base 6.6mm		0.0760	0.0500	0.0440	0.0410	0.0380
CE 100uF 25V SMD Fujicon	el.cap. CS D6.3xL7.7mm 20%, -40~85°C, base 6.6mm		0.1340	0.0880	0.0780	0.0720	0.0670
CE 100uF 35V SMD Fujicon	el.cap. CS D6.3xL7.7mm 20%, -40~85°C, base 6.6mm		0.2250	0.1570	0.1460	0.1350	0.1250
CE 220uF 10V SMD Fujicon	el.cap. CS D6.3xL7.7mm 20%, -40~85°C, base 6.6mm		0.1310	0.0870	0.0770	0.0710	0.0660
CE 220uF 16V SMD Fujicon	el.cap. CS D6.3xL7.7mm 20%, -40~85°C, base 6.6mm		0.1430	0.0940	0.0830	0.0770	0.0710
CE 330uF 10V SMD Fujicon	el.cap. CS D8xL10.5mm 20%, -40~85°C, base 8.3mm		0.2560	0.1790	0.1660	0.1540	0.1420
CE 330uF 16V SMD Fujicon	el.cap. CS D8xL10.5mm 20%, -40~85°C, base 8.3mm		0.2580	0.1810	0.1680	0.1550	0.1440
CE 470uF 10V SMD Fujicon	el.cap. CS D8xL10.5mm 20%, -40~85°C, base 8.3mm		0.2870	0.2010	0.1860	0.1720	0.1590
CE 470uF 16V SMD Fujicon	el.cap. CS D10xL10.5mm 20%, -40~85°C, base 10.3mm		0.3010	0.2110	0.1960	0.1810	0.1670
CE 1000uF 16V SMD Fujicon	el.cap. CS D10xL10.5mm 20%, -40~85°C, base 10.3mm		0.3180	0.2230	0.2070	0.1910	0.1770
CE 3.3uF 50V SMD 105C Fujicon	el.cap. CK D4xL5.4mm 20%, -40~105°C, base 4.3mm		0.0520	0.0340	0.0310	0.0280	0.0260
CE 4.7uF 50V SMD 105C Fujicon	el.cap. CK D5xL5.4mm 20%, -40~105°C, base 5.3mm		0.0770	0.0510	0.0450	0.0410	0.0380
CE 10uF 16V SMD 105C Fujicon	el.cap. CK D4xL5.4mm 20%, -40~105°C, base 4.3mm		0.0520	0.0340	0.0310	0.0280	0.0260
CE 10uF 35V SMD 105C Fujicon	el.cap. CK D5xL5.4mm 20%, -40~105°C, base 5.3mm		0.0640	0.0420	0.0370	0.0350	0.0320
CE 10uF 50V SMD 105C Fujicon	el.cap. CK D6.3xL5.4mm 20%, -40~105°C, base 6.6mm		0.1010	0.0660	0.0590	0.0540	0.0500
CE 10uF 100V SMD 105C Fujicon	el.cap. CK D6.3xL5.4mm 20%, -40~105°C, base 6.6mm		0.1320	0.0930	0.0860	0.0790	0.0730
CE 47uF 25V SMD 105C Fujicon	el.cap. CK D6.3xL5.4mm 20%, -40~105°C, base 6.6mm		0.0830	0.0550	0.0490	0.0450	0.0420
CE 47uF 50V SMD 105C Fujicon	el.cap. CK D6.3xL7.7mm 20%, -40~105°C, base 6.6mm		0.2050	0.1350	0.1200	0.1110	0.1020
CE 100uF 16V SMD 105C Fujicon	el.cap. CK D6.3xL5.4mm 20%, -40~105°C, base 6.6mm		0.0840	0.0560	0.0490	0.0450	0.0420
CE 220uF 16V SMD 105C Fujicon	el.cap. CK D6.3xL7.7mm 20%, -40~105°C, base 6.6mm		0.2050	0.1350	0.1200	0.1110	0.1020
CE 330uF 25V SMD 105C Fujicon	el.cap. CK D10xL10.5mm 20%, -40~105°C, base 10.3mm		0.2870	0.2010	0.1860	0.1720	0.1590
CE 470uF 16V SMD 105C Fujicon	el.cap. CK D10xL10.5mm 20%, -40~105°C, base 10.3mm		0.3810	0.2510	0.2230	0.2060	0.1900
CE 470uF 25V SMD 105C Fujicon	el.cap. CK D10xL10.5mm 20%, -40~105°C, base 10.3mm		0.3870	0.2550	0.2260	0.2090	0.1930
CE 1000uF 16V SMD 105C Fujicon	el.cap. CK D10xL10.5mm 20%, -40~105°C, base 10.3mm		0.3920	0.2590	0.2290	0.2120	0.1960
0.1F 5.5V	Memory Back-up cap. 0.1 Farad 5.5V		1.488	1.274	1.190		
1F 5.5V	Memory Back-up cap. 1 Farad 5.5V		4.152	3.554	3.322		

Tantalum Capacitors

			1-9	10-99	100-499 500-1999	2000+	
TANT 1.0uF 35V			0.082	0.073	0.068	0.063	0.058
TANT 2.2uF 16V			0.082	0.073	0.068	0.063	0.058
TANT 4.7uF 16V			0.103	0.093	0.086	0.080	0.074
TANT 4.7uF 35V			0.183	0.164	0.151	0.141	0.131
TANT 10uF 16V			0.115	0.103	0.095	0.088	0.082

Tantalum Capacitors

	1-9	10-99	100-499	500-1999	2000+
TANT 22uF 16V	0.225	0.209	0.194	0.181	0.169
TANT 33uF 10V	0.225	0.209	0.194	0.181	0.169
TANT 47uF 16V	0.492	0.459	0.425	0.396	0.370

Tantalum Capacitors SMD

	1-9	10-99	100-499	500-1999	2000+
TANT A SMD 1uF 20V	1.0uF 20V 20% A (1206) 0.5uA ESR 10 Ohm	0.1170	0.0749	0.0538	0.0515 0.0468
TANT A SMD 1uF 25V	1.0uF 25V 20% A 0.5uA ESR(100kHz) 8 Ohm	0.1150	0.0738	0.0530	0.0507 0.0461
TANT B SMD 1uF 35V	1.0uF 35V 10% B 0.5uA ESR 6.5 Ohm	0.1570	0.1006	0.0723	0.0692 0.0629
TANT A SMD 2.2uF 16V	2.2uF 16V 20% A (1206) 0.5uA ESR 7 Ohm	0.1060	0.0679	0.0488	0.0467 0.0424
TANT B SMD 2.2uF 35V	2.2uF 35V 10% B 0.77uA ESR 4.2 Ohm	0.1560	0.1001	0.0720	0.0688 0.0626
TANT A SMD 3.3uF 16V	3.3uF 16V 20% A 0.5uA ESR 6.0 Ohm	0.1110	0.0708	0.0509	0.0487 0.0443
TANT A SMD 4.7uF 10V	4.7uF 10V 20% A 0.5uA ESR 6.0 Ohm	0.1100	0.0707	0.0508	0.0486 0.0442
TANT A SMD 4.7uF 16V	4.7uF 16V 20% A 0.8uA	0.1090	0.0700	0.0503	0.0482 0.0438
TANT B SMD 4.7uF 16V	4.7uF 16V 20% B 0.8uA ESR 3.5 Ohm	0.1570	0.1004	0.0722	0.0691 0.0628
TANT P SMD 6.8uF 6.3V	6.8uF 6.3V 20% P 0.5uA	0.1900	0.1219	0.0876	0.0838 0.0762
TANT A SMD 6.8uF 16V	6.8uF 16V 20% A 1.1uA	0.1380	0.0883	0.0634	0.0607 0.0552
TANT P SMD 10uF 6.3V	10uF 6.3V 20% P 0.6uA	0.1280	0.0817	0.0587	0.0562 0.0511
TANT A SMD 10uF 10V	10uF 10V 20% A 1.0uA ESR 4.8 Ohm	0.1020	0.0653	0.0469	0.0449 0.0408
TANT B SMD 10uF 16V	10.0uF 16V 10% B 1.6uA ESR(100kHz) 2.8 Ohm	0.1110	0.0709	0.0510	0.0488 0.0443
TANT C SMD 10uF 25V	10.0uF 25V 20% C 2.5uA ESR(100kHz) 1.8 Ohm	0.2660	0.1701	0.1222	0.1169 0.1063
TANT C SMD 10uF 35V	10.0uF 35V 20% C 3.5uA ESR(100kHz) 1.6 Ohm	0.3550	0.2272	0.1633	0.1562 0.1420
TANT A SMD 15uF 10V	15.0uF 10V 20% B 1.5uA ESR 2.5 Ohm	0.2510	0.1609	0.1156	0.1106 0.1006
TANT B SMD 15uF 10V	15.0uF 10V 20% B 1.5uA ESR 2.5 Ohm	0.2490	0.1591	0.1144	0.1094 0.0994
TANT A SMD 22uF 6.3V	22uF 16V 10% B 3.52uA ESR 2.5 Ohm	0.1510	0.0969	0.0697	0.0666 0.0606
TANT B SMD 22uF 10V	22uF 16V 10% B 3.52uA ESR 2.5 Ohm	0.2040	0.1305	0.0938	0.0897 0.0816
TANT B SMD 22uF 16V	22uF 16V 10% B 3.52uA ESR 2.5 Ohm	0.2310	0.1475	0.1060	0.1014 0.0922
TANT C SMD 22uF 16V	22uF 16V 20% C	0.3120	0.1995	0.1434	0.1372 0.1247
TANT B SMD 33uF 10V	33uF 16V 10% C 5.3uA ESR 1.2 Ohm	0.2580	0.1648	0.1185	0.1133 0.1030
TANT D SMD 33uF 20V	33uF 20V 10% D	0.4400	0.2818	0.2026	0.1937 0.1761
TANT B SMD 47uF 6.3V	47uF 6.3V 10% B 2.96uA ESR 2.0 Ohm	0.2530	0.1617	0.1162	0.1112 0.1011
TANT B SMD 47uF 10V	47uF 10V 20% B 4.7uA	0.3090	0.1978	0.1422	0.1360 0.1236
TANT C SMD 47uF 10V	47uF 10V 20% C 4.7uA ESR 1.4 Ohm	0.4020	0.2575	0.1851	0.1771 0.1610
TANT D SMD 47uF 16V	47uF 16V 20% D 7.5uA ESR 0.8 Ohm	0.4610	0.2949	0.2120	0.2028 0.1843
TANT B SMD 68uF 6.3V	68uF 6.3V 20% B	0.2750	0.1762	0.1266	0.1211 0.1101
TANT D SMD 68uF 16V	68uF 16V 20% D	0.3970	0.2539	0.1825	0.1745 0.1587
TANT C SMD 100uF 10V	100uF 10V 20% C	0.4190	0.2680	0.1926	0.1843 0.1675
TANT D SMD 100uF 6V	100uF 6V 20% D	0.5410	0.3460	0.2487	0.2379 0.2163
TANT D SMD 100uF 10V	100uF 10V 10% D	0.4410	0.2824	0.2030	0.1942 0.1765
TANT C SMD 150uF 6.3V	150uF 6.3V 10% C	0.5430	0.3472	0.2496	0.2387 0.2170
TANT D SMD 150uF 10V	150uF 10V 10% D	0.9460	0.6052	0.4350	0.4161 0.3783
TANT D SMD 220uF 10V	220uF 10V 10% D	0.9380	0.6005	0.4316	0.4129 0.3753

Batteries

	1-9	10-99	100-499	500+
3.6V 60mAh	PCB Battery 3.6V 60mAh	1.518	1.406	1.271 1.125
CR2032	Lithium battery, 3V 210mAh	0.183	0.170	0.153 0.136
CR2032-H	Lithium battery, 3V 180mAh, horizontal mount	0.255	0.236	0.213 0.189
CR2032-V	Lithium battery, 3V 180mAh, vertical mount	0.255	0.236	0.213 0.189

**Battery holders**

	1-9	10-99	100+	1000+
KEYSTONE 55	Surface mount battery clip for "AAA"	0.191	0.174	0.148 0.137
KEYSTONE 103	Coin cell PC battery holder, horizontal for CR2032	1.065	0.967	0.822 0.761
KEYSTONE 1060	Surf Mount Cell Holder, horizontal for CR2032	1.141	1.036	0.881 0.815
KEYSTONE 2990	PC battery contact "Negative"	0.056	0.050	0.043 0.040
KEYSTONE 3003	Coin cell PC battery holder, hor. for CR2032	0.235	0.214	0.182 0.168
KEYSTONE 3009	Coin cell PC battery holder, hor. for CR2450	0.365	0.331	0.282 0.261
KEYSTONE 2242	9V battery snap	0.441	0.400	0.341 0.315
KEYSTONE 2462	Battery Holder for 2 "AA", PCB mounting	0.705	0.639	0.544 0.503
BH311P	Battery Holder for 1 "AA", PCB mounting	0.197	0.174	0.152

Battery holders

		1-9	10-99	100+	1000+
BH322A	Battery holder for 2 "AA"	0.218	0.193	0.168	
BH341A	Battery holder for 4 "AA"	0.465	0.411	0.358	
BS-TC	9V battery snap (crimping type)	0.146	0.125	0.120	0.104

Enclosures

		1-4	5-24	25-99	100+
KM13	remote control enclosure	1.11	0.98	0.92	0.89
KM20	enclosure 69x20x9	0.74	0.65	0.61	0.59
OT800S	enclosure for thermal printer 150x115x70	10.12	8.91	8.42	8.10

Enclosures PacTec www.pactecenclosures.com

		1-4	5-24	25-99	100+
C-23 PC BONE	enclosure W215.9xL234.95xH61.98	32.768	31.305	30.135	29.257
CB-23 BLACK	enclosure W215.9xL234.95xH61.98	32.768	31.305	30.135	29.257
CF-125 BLACK	enclosure W212.34xL231.39xH41.91	21.529	20.434	19.339	18.245
CF-125 PC-BONE	enclosure W212.34xL231.39xH41.91	21.529	20.434	19.339	18.245
CLLP-34 PC BONE	enclosure W318.01xL295.66xH89.15 to 108.2	45.399	43.372	41.750	40.534
CLLPH-300 BLACK	enclosure W318.01xL295.66xH89.15 min order 250 pcs	62.847	60.041	57.797	56.113
CM3-100 PC-BONE	enclosure W84.6xL133.35xH31.75	10.874	10.321	9.768	9.216
CM69-120 PC-BONE	enclosure W160.8xL241.3xH35.1	17.325	16.444	15.563	14.682
CM69-120 GREY	enclosure W160.8xL241.3xH35.1	17.325	16.444	15.563	14.682
CM79-125 PC-BONE	enclosure W189.23xL237.74xH31.75	16.600	15.756	14.912	14.068
CNL-0000 PC-BONE	enclosure W 63.5 Blank end/Blank end	2.449	2.324	2.200	2.075
CNL-0004 BLACK	enclosure W 63.5 Blank end/DB-9(CC)	4.634	4.398	4.163	3.927
CNL-0006 PC-BONE	enclosure W 63.5 Blank end/DB-25(CC)	3.499	3.321	3.143	2.966
CNL-0101 BLACK	enclosure W 63.5 DB9 /DB9(CC)	2.449	2.324	2.200	2.075
CNM-0101 BLACK	enclosure W 63.5 DB9 /DB9(CC)	2.397	2.275	2.154	2.032
CNM-0407 PC BONE	enclosure W 63.5 DB9 /RJ11/45	2.397	2.275	2.154	2.032
CNS-0101 BLACK	enclosure W 63.5 DB9 /DB9(CC)	2.473	2.347	2.221	2.095
CR-48 BLACK	enclosure W119.4xL215.9xH43.9	8.952	7.980	7.633	6.939
DM-2 BLACK	enclosure W264.2xL291.1xH60.5	34.845	33.289	32.045	31.111
DM-2 PC-BONE	enclosure W264.2xL291.1xH60.5	34.845	33.289	32.045	31.111
FLX-6030 BLACK	enclosure W152.4xL76.2xH50.8	9.482	8.453	8.085	7.350
FLX-6030 PC-BONE	enclosure W152.4xL76.2xH50.8	9.482	8.453	8.085	7.350
FLXT-2535-028 BLACK	enclosure W63.5xL88.9xH28.45	4.687	4.178	3.996	3.633
FLXT-2535-060 PC-BONE	enclosure W63.5xL88.9xH28.45	4.687	4.178	3.996	3.633
FLXT-4624-028 BLACK	enclosure W116.84xL60.96xH33.53	5.580	4.975	4.758	4.326
FLXT-4624-060 PC-BONE	enclosure W116.84xL60.96xH33.53	5.580	4.975	4.758	4.326
FLXT-7050 PC-BONE	enclosure W177.80xL127.00xH76.20	10.871	9.691	9.270	8.427
HM-ET PC BONE	enclosure W61.0xL96.5xH25.4 9V PANEL	4.634	4.131	3.951	3.592
HM-9VB BLACK	enclosure W61.0xL96.5xH25.4 9V PANEL	4.832	4.308	4.120	3.746
HM-9VB PC-BONE	enclosure W61.0xL96.5xH25.4 9V PANEL	4.832	4.308	4.120	3.746
HML-9VB KIT BLACK	enclosure W69.9xL116.8xH25.4	6.715	5.986	5.726	5.205
HML-9VB KIT PC-BONE	enclosure W69.9xL116.8xH25.4	6.715	5.986	5.726	5.205
HP-000 BLACK	enclosure W91.4xL146.1xH257	7.264	6.475	6.194	5.631
HP-4AA BLACK	enclosure W91.4xL146.1xH257	7.991	7.124	6.814	6.195
HP-9VB BLACK	enclosure W91.4xL146.1xH257	7.925	7.065	6.758	6.143
HP-LP BLACK	enclosure W91.4xL146.1xH257	7.131	6.357	6.081	5.528
HPL-4AA BLACK	enclosure W101.6xL190.5xH32.8	11.059	9.858	9.430	8.572
HPL-6AA PC-BONE	enclosure W101.6xL190.5xH32.8	11.786	10.507	10.050	9.136
HPLS-48 PC-BONE	enclosure W105.9xL215.9xH43.9/65	12.289	10.956	10.479	9.527
HPLS-48 BLACK	enclosure W105.9xL215.9xH43.9/65	12.289	10.956	10.479	9.527
HPLS-4AA BLACK	enclosure W101.6xL190.5xH32.8/57.4	13.010	11.598	11.094	10.085
HPLS-9VB BLACK	enclosure W101.6xL190.5xH32.8/57.4	12.775	11.388	10.893	9.903
HPLS-9VB PC-BONE	enclosure W101.6xL190.5xH32.8/57.4	12.775	11.388	10.893	9.903
HPS-4AA BLACK	enclosure W144.7xL91.44.5xH32.8/57.4	11.188	9.973	9.540	8.673
HPS-4AA PC BONE	enclosure W144.7xL91.44.5xH32.8/57.4	11.188	9.973	9.540	8.673
HPS-9VB BLACK	enclosure W91.4xL146.1xH32.8/53.1	10.731	9.566	9.151	8.319
HPS-9VB PC-BONE	enclosure W91.4xL146.1xH32.8/53.1	10.731	9.566	9.151	8.319
HPS-LP BLACK	enclosure W91.4xL146.1xH20.6/40.9	8.997	8.021	7.672	6.975
HR-9VB BLACK	enclosure W82.6xL146.1xH24.1	6.727	5.997	5.736	5.215
HR-9VB PC-BONE	enclosure W82.6xL146.1xH24.1	6.727	5.997	5.736	5.215
HRP-9VB PC-BONE	enclosure W91.4xL146.1xH32.8/53.1	7.106	6.335	6.060	5.509
KE-12 BLACK	enclosure W315.0xL165.1xH38.1	18.945	17.982	17.019	16.055
KE-17 KIT PC-BONE	enclosure W433.8xL220.5xH70.9	38.005	36.309	34.951	33.933
KE-20 KIT PC-BONE	enclosure W510.0xL220.5xH70.9	46.724	44.638	42.970	41.718
KEU-10 BLACK	enclosure W254.0xL204.0xH101.6	27.811	24.792	23.715	21.559
KEU-10LP BLACK	enclosure W254.0xL204.0xH51.8	22.123	19.722	18.865	17.150
KEU-10LP PC-BONE	enclosure W254.0xL204.0xH51.8	22.123	19.722	18.865	17.150
KEU-7 BLACK	enclosure W177.8xL127.0xH33	21.636	19.287	18.449	16.772
KEU-7 PC-BONE	enclosure W177.8xL127.0xH33	21.636	19.287	18.449	16.772
KEU-7LP BLACK	enclosure W177.8xL127.0xH33	14.712	13.116	12.545	11.405
KEU-7LP PC-BONE	enclosure W177.8xL127.0xH33	14.712	13.116	12.545	11.405
KEU-5LP BLACK	enclosure W137.2xL137.7xH40.4	12.266	10.935	10.460	9.509
KEU-5LP PC-BONE	enclosure W137.2xL137.7xH40.4	12.266	10.935	10.460	9.509
KR-1 BLACK	enclosure W35.6xL58.4xH11.4 (MOQ 250)	3.670	3.126	2.855	2.719
LH43-200 BLACK	enclosure W114.3xL76.2xH44.45	9.099	8.112	7.759	7.054
LH43-200 PC-BONE	enclosure W114.3xL76.2xH44.45	9.099	8.112	7.759	7.054
LH64-130 BLACK	enclosure W154.43xL108.2xH38.1	11.541	10.289	9.842	8.947
LH64-130 PC-BONE	enclosure W154.43xL108.2xH38.1	11.541	10.289	9.842	8.947
LH96-130 BLACK	enclosure W230.63xL159.0xH38.1	15.714	14.915	14.116	13.317
LH96-130 PC-BONE	enclosure W230.63xL159.0xH38.1	15.714	14.915	14.116	13.317

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		1-4	5-24	25-99	100+
LH96-200 BLACK	enclosure W230.63xL159.0xH57.15	16.779	15.926	15.073	14.220
LH96-200 PC-BONE	enclosure W230.63xL159.0xH57.15	16.779	15.926	15.073	14.220
OD-45 PC BONE	enclosure W129.5xL78.7xH38.1	12.954	12.295	11.636	10.978
PS36-200 BLACK	enclosure WB2.04xL148.59xH48.01	6.258	5.331	4.867	4.635
PT-8 BLACK	enclosure W16.76xL22.61xH6.68	24.014	20.456	18.678	17.788
PT-8 PC BONE	enclosure W16.76xL22.61xH6.68	24.014	20.456	18.678	17.788
PT-10 PC BONE	enclosure W18.80xL27.94xH7.62	26.986	22.988	20.989	19.990
PP-2AA GRAY/DARK GRAY	enclosure W8.18xL6.35xH2.79	9.136	7.783	7.106	6.768
PP GRAY/DARK GRAY	enclosure W8.18xL6.35xH2.79	8.461	7.208	6.581	6.268
PPL-2AA GRAY/DARK GRAY	enclosure W11.05xL6.27xH2.79	9.486	8.080	7.378	7.026
PPL-2AA GRAY/BLACK	enclosure W11.05xL6.27xH2.79	9.486	8.080	7.378	7.026
PPL GRAY/DARK GRAY	enclosure W11.05xL6.27xH2.79	8.811	7.505	6.853	6.526
PPL GRAY/BLACK	enclosure W11.05xL6.27xH2.79	8.811	7.505	6.853	6.526
RC-24-9VB/2AA PC BONE	enclosure W64.63xL78.7xH25.4	6.501	5.796	5.544	5.040
RC-23-9VB BC BLACK	enclosure W63.5xL78.7xH25.4	5.575	4.970	4.754	4.322
RC-23-9VB PBC PC BONE	enclosure W63.5xL78.7xH25.4	5.575	4.970	4.754	4.322
RC-37-2AA BLACK	enclosure W165.1xL78.7xH25.4	8.861	7.900	7.556	6.869
RCS24-9VB/2AA BLACK	enclosure W63.5xL116.84xH22.86	7.096	6.326	6.051	5.501
RCS24-9VB/2AA PC-BONE	enclosure W63.5xL116.84xH22.86	7.096	6.326	6.051	5.501
RM-178 BLACK	enclosure W431.8xL203.26xH43.18	37.800	36.112	34.762	33.750
RM-178 PC-BONE	enclosure W431.8xL203.26xH43.18	37.800	36.112	34.762	33.750
TR-9VB/2AA BLACK	enclosure W111.8xL195.66xH31.75	9.747	8.689	8.311	7.556
TR-9VB/2AA BLACK NEW	enclosure W111.8xL195.66xH31.75	9.747	8.689	8.311	7.556
TR-9VB/2AA PC BONE NEW	enclosure W111.8xL195.66xH31.75	9.654	8.606	8.232	7.484
TS BLACK	enclosure W83.57xL184.66xH31.75	12.559	11.196	10.709	9.736
TS PC-BONE	enclosure W83.57xL184.66xH31.75	12.559	11.196	10.709	9.736
TS-9VB/2AA BLACK	enclosure W83.57xL184.66xH34.29	13.153	11.725	11.216	10.196
TS-9VB/2AA PC-BONE	enclosure W83.57xL184.66xH34.29	13.153	11.725	11.216	10.196
TT BLACK	enclosure W112.8/83.6xL216.41xH29.2/38.1	14.213	12.670	12.119	11.018
TT PC-BONE	enclosure W112.8/83.6xL216.41xH29.2/38.1	14.213	12.670	12.119	11.018
TT-9VB/2AA BLACK	enclosure W112.8/83.6xL216.41xH29.2/38.1	14.788	13.183	12.610	11.464
TT-9VB/2AA PC-BONE	enclosure W112.8/83.6xL216.41xH29.2/38.1	14.788	13.183	12.610	11.464
XP PC BONE	enclosure W139.7xL91.5xH28	7.635	6.807	6.511	5.919
XP-9VB BLACK	enclosure W139.7xL91.5xH28	8.297	7.396	7.075	6.432
XPL-9VB PC BONE	enclosure W177.8xL101.6xH28	11.022	9.826	9.399	8.545
XPL PC BONE	enclosure W177.8xL101.6xH28	10.427	9.296	8.891	8.083
WM-46 PC-BONE	enclosure W95.25xL133.35xH25.40	6.676	5.952	5.693	5.175
WM-56 BLACK	enclosure W154.94xL129.54xH38.1	7.464	6.654	6.365	5.786

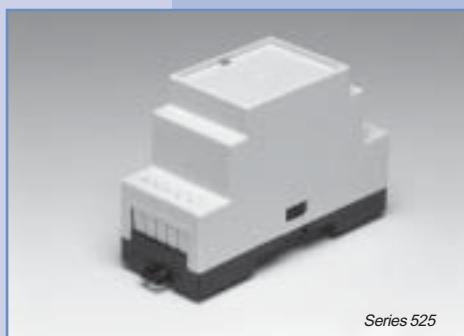
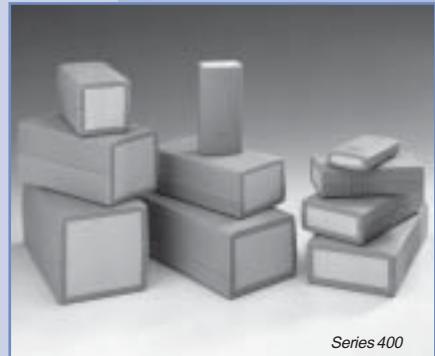
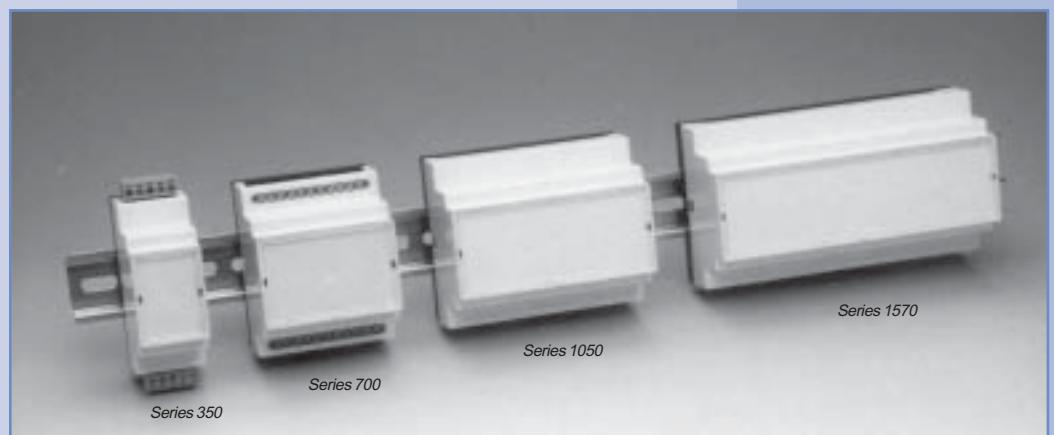
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		1-4	5-24	25-99	100+
BE2069124001	Type 124 aluminium	29.557	26.010	24.591	23.646
BE2069104001	Type 104 aluminium	10.609	9.336	8.826	8.487
BE20691114001	Type 114 aluminium	33.015	29.053	27.468	26.412
BE2069132001	Type 132 aluminium	51.182	45.040	42.583	40.946
<i>Series 175:</i>					
BE4969001750	Type 175 Complete	3.143	2.765	2.615	2.514
<i>Series 200:</i>					
BE2069203001	Type 203, grey body / lid	5.526	4.863	4.597	4.421
BE2069203012	Type 203 ECO ABS clear/grey, % recess, f. 1/4 turn	5.526	4.863	4.597	4.421
BE2069203013	Type 203 ECO ABS grey/grey, % recess, f. 1/4 turn	5.526	4.863	4.597	4.421
BE2069212001	Type 212, grey body / lid	7.383	6.497	6.143	5.907
BE2069212002	Type 212, grey body / clear lid	7.383	6.497	6.143	5.907
BE2069212022	Type 212, grey body / clear lid 1/4turn	5.650	4.972	4.700	4.520
BE2069212111	Type 212, ECO ABS grey / grey 1/4 turn	5.625	4.950	4.680	4.500
BE2069212222	Type 212, ECO ABS grey / clear lid 1/4 turn, recess	5.650	4.972	4.700	4.520
BE2069214232	Type 214, grey body / clear lid	11.200	9.856	9.318	8.960
BE2069214342	Type 214, ECO ABS clear/grey 1/turn or M	11.200	9.856	9.318	8.960
BE2069222212	Type 222, ECO clear/grey without recess 1/4turn	11.299	9.943	9.401	9.039
BE2069258201	Type 258, Complete grey	8.351	7.348	6.948	6.680
BE2069265001	Type 265, grey body/lid	21.420	18.850	17.822	17.136
BE2069287001	Type 287, grey body/lid	33.541	29.516	27.906	26.833
<i>Series 300:</i>					
BE0669001303	Type 300, grey body / lid	4.404	3.875	3.664	3.523
<i>Series 301:</i>					
BE0669001301	Type 301, grey body / lid	3.966	3.490	3.300	3.173
<i>Series 350:</i>					
BE4969010351	Complete, 257 for plugable	4.549	4.003	3.785	3.639
BE4969010352	Complete, 605 for fixed or screw-less term.	4.549	4.003	3.785	3.639
BE4969010354	Complete, knock-out, without lid	4.549	4.003	3.785	3.639
BE4969010355	Complete, 605 ventilated, without comb	4.549	4.003	3.785	3.639
BE4969010350	Complete, closed, no terminals	4.549	4.003	3.785	3.639
BE4969040355	Complete, 605 ventilated, without comb	4.549	4.003	3.785	3.639
BE4969001350	Transparent lid for type 350	0.695	0.611	0.578	0.556
BE4969002350B+C	Base part for Type 350 plus clip	2.672	2.351	2.223	2.137
BE4972011259	Light conductor 37.9 mm	0.848	0.746	0.706	0.679

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		1-4	5-24	25-99	100+
Series 400:					
BE2069401001	Type 401, grey, complete	3.294	2.899	2.741	2.635
BE2069403000	Type 403 black without end panels	2.599	2.287	2.163	2.079
BE2069403001	Type 403, grey, complete	3.320	2.922	2.762	2.656
BE2069403003	Type 403 black end panel for D-sub	0.366	0.322	0.304	0.293
BE2069403103	Type 403 black end panel without holes	0.366	0.322	0.304	0.293
BE2069404001	Type 404, grey, complete	3.954	3.479	3.289	3.163
BE2069407001	Type 407, grey, complete	4.320	3.802	3.595	3.456
BE2069410001	Type 410, grey, complete	4.660	4.101	3.877	3.728
BE2069413003	Type 413, grey, complete for self tapping screws	6.131	5.396	5.101	4.905
BE2069416001	Type 416, grey, complete	6.649	5.851	5.532	5.319
BE2069421001	Type 421, grey, complete	9.785	8.611	8.141	7.828
Series 450:					
BE4969003450	Complete, incl.DIN-rail clip,5+7 terminals	10.231	9.003	8.512	8.184
BE4969004450	Type 450 complete with wire guards	10.255	9.025	8.532	8.204
Series 500:					
BE2069000506	Type 500 complete	4.519	3.976	3.759	3.615
Series 525:					
BE4969004525	Complete with 14 terminals/screws	10.492	9.233	8.729	8.393
Series 600:					
BE669002600	Type 600 complete with knob	5.558	4.891	4.624	4.446
Series 601:					
BE669001602	Type 601 complete	5.186	4.563	4.315	4.149
Series 602:					
BE669002622	Type 602 complete	5.343	4.702	4.446	4.275
Series 700:					
BE4969010700	Complete, closed, no terminals	5.166	4.546	4.298	4.132
BE4969010701	Complete, 257 for pluggable	5.166	4.546	4.298	4.132
BE4969010702	Complete, 605 for fixed or screw-less term.	5.166	4.546	4.298	4.132
BE4969010703	Complete, knock-out	5.166	4.546	4.298	4.132
BE4969010704	Complete, ventilated without lid	5.166	4.546	4.298	4.132
BE4969010707	Complete, knock-out, ventilated	5.166	4.546	4.298	4.132
BE4969001700	Transparent lid for type 700	0.789	0.695	0.657	0.632
Series 900:					
BE4969093901	Type 939, grey, ABS	4.925	4.334	4.098	3.940
Series 1000:					
BE4969113102	Type 1131 ABS clear/grey	8.455	7.441	7.035	6.764
BE4969113101	Type 1131 ABS grey/grey	7.255	6.385	6.036	5.804
BE4969117101	Type 1171 ABS grey/grey	8.156	7.177	6.786	6.525
Series 1050:					
BE4969101051	Complete, 257 for pluggable	6.234	5.486	5.187	4.987
BE4969101052	Complete, 605 for fixed or screw-less term.	6.234	5.486	5.187	4.987
BE4969101053	Type 1050, complete knock-out	6.234	5.486	5.187	4.987
BE4969101050	Complete, closed, no terminals	6.234	5.486	5.187	4.987
BE4969011050	Transparent lid for Type 1050	1.160	1.021	0.965	0.928
Series 1100:					
BE4969116801	Type 1168, Complete, Grey	6.584	5.794	5.478	5.267
BE4969116802	Type 1168, Complete, Black	6.584	5.794	5.478	5.267
BE4969118902	Type 1189, black	8.796	7.740	7.318	7.036
Series 1435, 1470					
BE4969014350	Type 1435, Complete	5.037	4.433	4.191	4.030
BE4969014700	Type 1470, Complete	6.400	5.632	5.325	5.120
Series 1570:					
BE4969101571	Complete, 257 for pluggable	6.897	6.070	5.739	5.518
BE4969101572	Complete, 605 for fixed or screw-less term.	6.897	6.070	5.739	5.518
BE4969101573	Complete, type1570 knock-out	6.897	6.070	5.739	5.518
BE4969101575	Complete, type1570/605 ventilated	6.897	6.070	5.739	5.518
BE4969101577	Complete, type1570 ventil	6.897	6.070	5.739	5.518
BE4969101570	Complete, closed, no terminals	6.897	6.070	5.739	5.518
BE4969011570	Transparent lid for Type 1570	1.224	1.077	1.018	0.979
BE4969001570	Type 1570 top part grey/closed	3.559	3.132	2.961	2.848
Series 2000:					
BE4969832011	Type 2011S, grey, ABS	5.340	4.700	4.443	4.272
BE4969842011	Type 2011M, grey, ABS	5.965	5.249	4.963	4.772
BE4969852011	Type 2011L, grey, ABS	7.141	6.284	5.941	5.713
BE4969832051	Type 2051S, grey, ABS	6.898	6.070	5.739	5.519
BE4969842051	Type 2051M, grey, ABS	8.969	7.893	7.462	7.175
BE4969852051	Type 2051L, grey, ABS	11.162	9.822	9.287	8.929

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BE4969832091	Type 2091M, grey, ABS	12.837	11.296	10.680	10.269
BE4969842091	Type 2091S, grey, ABS	14.390	12.663	11.973	11.512
BE4969852091	Type 2091L, grey, ABS	15.451	13.596	12.855	12.360
Series 2100:					
BE4969118301	Type 21183G, grey	9.785	8.611	8.142	7.828
BE4969118302	Type 21183B, black	9.785	8.611	8.142	7.828
BE4969118801	Type 21188G, grey	9.785	8.611	8.142	7.828
BE4969118802	Type 21188B, black	9.033	7.949	7.515	7.226
Series 3000:					
BE4969863001	Type 3001, black, sealed	7.211	6.346	6.000	5.769
Series 3100:					
BE4969311501	Type 3115	3.389	2.982	2.820	2.711
BE4969316501	Type 3165	7.136	6.280	5.938	5.709
BE4969318501	Type 3185 grey/grey	10.116	8.902	8.416	8.093
Series 4000:					
BE4969014000	Type REX 4000 complete, grey/grey	17.121	15.066	14.245	13.697
Series 6000:					
BE4969601501	Type 6015	3.670	3.229	3.053	2.936
Series NOVA					
BE4969063001	Type NOVA63	8.240	7.325	6.531	6.104
BE4969883001	Type 3001, Grey, Sealed	7.634	6.786	6.051	5.655
Series GOLD					
BE4969020001	Type GOLD complete	5.749	5.110	4.557	4.259

Enclosures CE

1-49 50-99 100+

BX1/085/057/037/B	plastic box 85x57x37 black	1.19	1.14	1.07
BX1/085/057/037/W	plastic box 85x57x37 white	1.19	1.14	1.07
BX2/110/072/051/B	plastic box 110x72x51 black	1.59	1.52	1.43
BX3/070/042/026/B	plastic box 70x42x26 black	0.89	0.85	0.81
BX3/070/042/026/W	plastic box 70x42x26 white	0.89	0.85	0.81
BX4/102/059/046/BH	plastic box 102x59x46 black	1.34	1.28	1.21
BX4/102/059/046/WH	plastic box 102x59x46 white	1.34	1.28	1.21
BX5/102/059/034/BL	plastic box 102x59x34 black	1.24	1.19	1.12
BX5/102/059/034/WL	plastic box 102x59x34 white	1.24	1.19	1.12
BX9/057/036/020/B	plastic box 57x36x20 black	0.60	0.57	0.54
BX9/057/036/020/W	plastic box 57x36x20 white	0.60	0.57	0.54
BX12/110+HOLD/082/050/B	plastic box 110+*x82x50 black	2.28	2.18	2.06
BX15/065+30/055/020+020/B	plastic box 65+2*15x55x20+20 black	1.49	1.42	1.34
BX10/1082/056/041/B	plastic box 82x56x41 black	1.19	1.14	1.07
BX10/2/096/094/035/B	plastic box 96x94x35 black	1.19	1.14	1.07
ANGADAPTERBOX	plastic adapter box black for ANG18/24	2.45		
METAL BOX 7/TRP30	MET BOX w/TRANSF. /250.5x250.5x90mm 30VA / 16.5V	20.89		

Tools, equipment, consumables**Tools****Cutters TRONEX**

1+

TRONEX 5111	cutters,oval head,semi-flush,standard	31.89
TRONEX 5112	cutters,oval head,flush,standard	32.61
TRONEX 5113	cutters,oval head,opt.flush,standard	35.44
TRONEX 5121	cutters,oval relief head,semi-flush,st.	32.60
TRONEX 5122	cutters,oval relief head,flush,standard	33.31
TRONEX 5111L / 5511	cutters,large oval head,semi-flush,st.	33.31
TRONEX 5112L / 5512	cutters,large oval head,flush,standard	34.02
TRONEX 5113L / 5513	cutters,large oval head,opt.flush,st.	36.86
TRONEX 5121L / 5521	cutters,large oval relief,semi-flush,st.	34.02
TRONEX 5211	cutters,taper head,semi-flush,stand.	33.03
TRONEX 5212	cutters,taper head,flush,standard	33.74
TRONEX 5213	cutters,taper head,opt.flush,standard	36.57
TRONEX 5221	cutters,taper relief,semi-flush,stand.	33.45
TRONEX 5222	cutters,taper relief head,flush,stand.	34.16
TRONEX 5223	cutters,taper relief head,opt.flush,st.	37.00
TRONEX 5321 / 5311	cutters,mini-oval head,semi-flush,st.	34.02
TRONEX 5322 / 5312	cutters,mini-oval head,flush,standard	35.44
TRONEX 5323 / 5313	cutters,mini-oval head,opt.flush,stand.	38.27
TRONEX 7111	cutters,oval head,semi-flush,erg.	33.31
TRONEX 7112	cutters,oval head,flush,ergonomic	34.02
TRONEX 7113	cutters,oval head,opt.flush,ergonomic	36.86
TRONEX 7121	cutters,oval relief head,semi-flush,erg.	34.02
TRONEX 7122	cutters,oval relief head,flush,erg.	34.73
TRONEX 7111L / 7511	cutters,large oval head,semi-flush,erg.	34.73
TRONEX 7112L / 7512	cutters,large oval head,flush,erg.	35.44
TRONEX 7121L / 7521	cutters,large oval relief,semi-flush,erg.	35.44
TRONEX 7211	cutters,taper head,semi-flush,erg.	34.45
TRONEX 7212	cutters,taper head,flush,ergonomic	35.15
TRONEX 7213	cutters,taper head,opt.flush,erg.	37.99
TRONEX 7221	cutters,taper relief,semi-flush,erg.	34.87
TRONEX 7222	cutters,taper relief,flush,ergonomic	35.58
TRONEX 7223	cutters,taper relief head,opt.flush,erg.	38.41
TRONEX 7321 / 7311	cutters,mini-oval head,semi-flush,erg.	35.44
TRONEX 7322 / 7312	cutters,mini-oval head,flush,ergonomic	36.86
TRONEX 7323 / 7313	cutters,mini-oval head,opt.flush,erg.	39.69
TRONEX 7272 / 5072	cutters,angulated,opt.flush,standard 50°	49.61
TRONEX 7172 / 7072	cutters,angulated,opt.flush,ergonomic 50°	51.03
TRONEX 7274 / 5074	end cutter,opt.flush,standard	55.28
TRONEX 7174 / 7074	end cutter,opt.flush,ergonomic	56.70
TRONEX 7275 / 5075	cutters,angulated,opt.flush,standard 50°	53.87
TRONEX 7175 / 7075	cutters,angulated,opt.flush,ergonomic 50°	55.28
TRONEX 7282 / 5082	cutters,angulated,opt.flush,standard 50°	49.61
TRONEX 7182 / 7082	cutters,angulated,opt.flush,ergonomic 50°	51.03
TRONEX 7283 / 5083	cutters,angulated,opt.flush,standard 70°	49.61
TRONEX 7183 / 7083	cutters,angulated,opt.flush,ergonomic 70°	51.03
TRONEX 7249 / 5049	cutters,taper relief mini-head,opt.flush	46.78
TRONEX 7270 / 5070	tip cutter,opt.flush,standard	46.78
TRONEX 7170 / 7070	tip cutter,opt.flush,ergonomic	51.03



Oval head



Tapered head



Tapered relief head



Tip cutter



Angulated cutter



Shear cutter

Cutters TRONEX

TRONEX 7271 / 5071	tip cutter,opt.flush,standard	55.28
TRONEX 7171 / 7071	tip cutter,opt.flush,ergonomic	56.70
TRONEX 7288 / 5088	tip cutter,opt.flush,standard	49.61
TRONEX 7230 / 5030	end cutter,opt.flush,standard	85.05
TRONEX 7130 / 7030	end cutter,opt.flush,ergonomic	106.31

Electronic service cases

BERNSTEIN1200 PRESTIGE	Service Case PRESTIGE with 38 tools	758.56
BERNSTEIN1500 HANDY	Service Case HANDY with 41 tools	494.37
BERNSTEIN2200 ANTISTATIC	Service Set ANTISTATIC with 12 tools	256.26
BERNSTEIN2250 CARAT	Service Set CARAT with 9 conductive tools	173.48
BERNSTEIN2270 ACCENT	Service Set ACCENT with 9 conductive tools	126.99
BERNSTEIN2400 RADIO-TV	Radio-TV-Service Tool Roll with 24 tools	268.73
BERNSTEIN2600 EUROline	Service Set EUROline with 22 tools	316.35
BERNSTEIN2700 NETWORK	Service Set NETWORK with 23 tools	353.77
BERNSTEIN3000 MASTER	Service Case MASTER with 19 tools	264.19
BERNSTEIN3010 MASTER	Service Case MASTER without soldering iron	235.85
BERNSTEIN3015 MASTER	MASTER service case without tools	91.28
BERNSTEIN6300 DATA	Service Case DATA with 34 tools	537.46
BERNSTEIN6400 TECHNIK	Service Case TECHNIK with 82 tools	987.60
BERNSTEIN6600 TELECOM	Service Case TELECOM with 118 tools	1624.84
BERNSTEIN8160 VDE	VDE Tool Set with 12 tools	257.39

Adjusting tools

BERNSTEIN1750	13-piece set ceramic adjusting screwdrivers	159.71
BERNSTEIN1853	Adjusting screwdriver with ceramic blades 110mm	13.44
BERNSTEIN1184	Double-ended adjusting key	6.80
BERNSTEIN1185	Double-ended adjusting key bronze	9.58
BERNSTEIN1531	Crosspoint adjusting key, 2.4 x 0.4mm	5.61
BERNSTEIN1532	Crosspoint adjusting key, 2.7 x 0.8mm	5.61
BERNSTEIN1533	Crosspoint adjusting key, 3.0 x 0.8mm	5.61
BERNSTEIN1534	Crosspoint adjusting key, 4.0 x 1.5mm	5.61
BERNSTEIN1551	Screwdriver adjusting key, 1.4 x 0.4mm	4.99
BERNSTEIN1552	Screwdriver adjusting key, 2.0 x 0.4mm	4.99
BERNSTEIN1553	Screwdriver adjusting key, 2.4 x 0.5mm	4.99
BERNSTEIN1554	Screwdriver adjusting key, 2.7 x 0.5mm	4.99
BERNSTEIN1555	Screwdriver adjusting key, 3.0 x 0.6mm	4.99
BERNSTEIN1160	7-piece set television adjusting screwdrivers	34.07
BERNSTEIN1153	Adjusting screwdriver with blade from sp.plastic	5.16
BERNSTEIN1154	Adjusting screwdriver with blade from sp.plastic	5.22
BERNSTEIN1150	7-piece set adjusting screwdrivers	41.44
BERNSTEIN1300	7-piece set adjusting screwdrivers bronze tips	55.22
BERNSTEIN1180	7-piece set adjusting screwdrivers	47.51
BERNSTEIN1190	7-piece set adjusting tools in a leather case	49.32
BERNSTEIN1970	21-piece adjusting tools	121.55
BERNSTEIN1200	12-piece set special and adjusting tools in a case	96.78
BERNSTEIN1250	12-piece set special and adjusting tools in a case	110.61
BERNSTEIN22651	Test prods red	7.31
BERNSTEIN22652	Test prods black	7.31
BERNSTEIN2125	Desoldering lever, slotted at both ends	7.31
BERNSTEIN2127	Tin knife ceramic blade for PCB paths cutting	9.18
BERNSTEIN2152	Tool holder	8.05
BERNSTEIN2155	Claw-type gripper	15.14
BERNSTEIN2157	Flexible claw-type gripper	20.75
BERNSTEIN2165	Contact cleaner Ni	0.91
BERNSTEIN2166	Glass fibre contact cleaner brush	4.88
BERNSTEIN1909	Engineer's mirror with extension	12.36
BERNSTEIN1978	Engineer's mirror with screwdriver blade	12.53
BERNSTEIN2275	Repair mirror	8.73
BERNSTEIN2281	Double-jointed mirror	15.99
BERNSTEIN2282	Telescopic mirror	18.37
BERNSTEIN2285	Inspection mirror	29.65
BERNSTEIN2291	Plastic magnifying glass, Ø30mm, 5x	6.86
BERNSTEIN2293	Hand magnifier, Ø65mm, 3x	39.12
BERNSTEIN2295	Hand magnifier with light, Ø35mm, 4x	30.50
BERNSTEIN2655	Pocket lamp laser spot fiber bent optic adaptor	25.23
BERNSTEIN265580	Pocket lamp laser spot fiber straight optic adaptor	28.91
BERNSTEIN2130	6-piece set of spring hooks	32.54
BERNSTEIN2131	Spring hook 205mm	8.73
BERNSTEIN2132	Spring hook 175mm	8.22
BERNSTEIN2601	IC-tweezers	6.18
BERNSTEIN2620	PLCC-extractor	8.05
BERNSTEIN2705	Contact-free voltage detector	21.49

Cutters, pliers

BERNSTEIN365114	Side cutters, 120mm, rounded head	35.04
BERNSTEIN365114DR	Side cutters, 120mm, with wire retaining spring	40.37
BERNSTEIN365214	Side cutters, 120mm, pointed head	34.41
BERNSTEIN365314	Side cutters, 120mm, with flat cutting edge	35.15
BERNSTEIN365414	Side cutters, 125mm, rounded head	32.37

Cutters, pliers

1+

BERNSTEIN365514	Side cutters, 125mm, rounded head	32.37
BERNSTEIN365614	Side cutters, 125mm, pointed head	34.47
BERNSTEIN365714	Side cutters, 125mm, pointed head	34.47
BERNSTEIN367114	End cutters, 130mm, without side face	62.87
BERNSTEIN367214	End cutters, 130mm, without side face, angular	62.87
BERNSTEIN367314	End cutters, 130mm, without side face, angular	73.59
BERNSTEIN367414	End cutters, 130mm, without side face, angular	71.26
BERNSTEIN368114	Round nose pliers, 130mm	27.61
BERNSTEIN368214	Flat nose pliers 130mm	27.04
BERNSTEIN368314	Snipe nose pliers, 130mm	27.04
BERNSTEIN3670	4-piece set of EUROline pliers in a case	189.41
BERNSTEIN365115	Mini side cutters conductive, 120mm	35.77
BERNSTEIN365115DR	Mini side cutters conductive, 120mm	41.10
BERNSTEIN365215	Mini side cutters conductive, 120mm	35.15
BERNSTEIN365315	Mini side cutters conductive, 120mm	35.89
BERNSTEIN365415	Side cutters, 125mm, rounded head conductive	33.11
BERNSTEIN365515	Side cutters, 125mm, rounded head conductive	33.11
BERNSTEIN365615	Side cutters, 125mm, pointed head conductive	35.21
BERNSTEIN365715	Side cutters, 125mm, pointed head conductive	35.21
BERNSTEIN367115	End cutters, 130mm, conductive	63.61
BERNSTEIN367215	End cutters, 130mm, conductive, angular	63.61
BERNSTEIN367315	End cutters, 130mm, conductive, angular	74.33
BERNSTEIN367415	Top cutters, 130mm, conductive	72.00
BERNSTEIN367515	Oblique top cutters, 115mm, conductive	42.58
BERNSTEIN368115	Round nose pliers, 130mm, conductive	28.35
BERNSTEIN368215	Flat nose pliers, 130mm, conductive	27.78
BERNSTEIN368315	Snipe nose pliers, 130mm, conductive	27.78
BERNSTEIN36880	4-piece set of pliers conductive in a case	192.36
BERNSTEIN363313	Snipe nose pliers, 120mm, conductive	21.20
BERNSTEIN3650	5-piece set conductive pliers in a table support	115.20
BERNSTEIN324513	Telephone pliers, 200mm, conductive	29.88
BERNSTEIN30612	Side cutters, without side fase, insulation, 125mm	36.34
BERNSTEIN31112	Side cutters, 120mm, with flat cutting edge	25.74
BERNSTEIN31122	Side cutters, 120mm, rounded head	25.74
BERNSTEIN31292	Slimline top cutters, 115mm	33.96
BERNSTEIN34352	Micro round nose pliers, 120mm	25.06
BERNSTEIN34452	Micro flat nose pliers, 120mm	24.55
BERNSTEIN34552	Micro snipe nose pliers, 120mm	24.55
BERNSTEIN34732	Snipe nose pliers, 145mm	29.54
BERNSTEIN31311	Side cutters, swedish design, insulation, 120mm	21.66
BERNSTEIN31331	Side cutters, swedish design, insulation, 145mm	23.93
BERNSTEIN32351	Telephone pliers with wire cutters, 145mm	20.52
BERNSTEIN32555	Telephone pliers, 200mm, long bent jaws	28.52
BERNSTEIN32551	Telephone pliers, 200mm, bent jaws, insulation	30.84
BERNSTEIN35111	Flat pliers, 120mm	16.56
BERNSTEIN37321	Combination pliers with wire cutter, 165mm	24.83
BERNSTEIN3565	Water pump pliers, 130mm	13.04
BERNSTEIN3815	Wire stripper with adjusting screw, 155mm	19.50
BERNSTEIN38151	Wire stripper with adjusting screw, 155mm, insul.	21.83
BERNSTEIN38342	Wire strippers, 135mm	36.85
BERNSTEIN38756	Pressing pliers for multicore cable end 0.5-16mm ²	26.14
BERNSTEIN3940	4-piece pliers set, burnished, in a wallet	80.96
BERNSTEIN36018	Side cutters, 120mm, with slim rounded head	22.90
BERNSTEIN36038	Side cutters, 120mm, with slim pointed head	23.19
BERNSTEIN36068	End cutters, 120mm, without side face	28.86
BERNSTEIN36318	Round nose pliers, 120mm	21.09
BERNSTEIN3142VDE	Power side cutters, 165mm, VDE safety insulation	35.72
BERNSTEIN3244VDE	Telephone pliers, 165mm, VDE safety insulation	31.07
BERNSTEIN3245VDE	Telephone pliers, 205mm, VDE safety insulation	34.41
BERNSTEIN3255VDE	Telephone pliers, 205mm, long bent jaws, VDE	36.34
BERNSTEIN3545VDE	Flat nose pliers, 185mm, VDE safety insulation	28.97
BERNSTEIN3733VDE	Combination pliers, 185mm, VDE insulation	32.20
BERNSTEIN3815VDE	Wire stripper with adjusting screw, 160mm, VDE	28.80
BERNSTEIN13906VDE	Side cutters, 160mm, VDE safety insulation	15.59
BERNSTEIN13915VDE	Telephone pliers, 160mm, straight, VDE insulation	15.59
BERNSTEIN13926VDE	Round nose pliers, 160mm, VDE safety insulation	16.61
BERNSTEIN13946VDE	Wire strippers, 160mm, VDE safety insulation	17.86
BERNSTEIN13106VDE	Side cutters, 160mm, multilayered, VDE insulation	24.09
BERNSTEIN13207VDE	Telephone pliers, 205mm, straight, VDE insulation	26.65
BERNSTEIN13506VDE	Round nose pliers, 165mm, VDE insulation	22.39
BERNSTEIN13707VDE	Combination pliers, 190mm, VDE insulation	25.23
BERNSTEIN13806VDE	Wire strippers, 165mm, VDE insulation	26.08
BERNSTEIN30605	Crimping pliers 6P/6C, 6P/4C, 6P/2C and 8P/8C	28.35
BERNSTEIN30608	Universal crimping pliers for connectors	22.11
BERNSTEIN30609	Universal crimping pliers for connectors	90.71
BERNSTEIN30645	Stripping side cutters, 125mm	4.54

Screwdrivers

1+

BERNSTEIN4103S	Engineer's screwdriver, 4x0.6mm, 100mm	3.52
BERNSTEIN4105S	Engineer's screwdriver, 6x1.0mm, 200mm	5.61
BERNSTEIN4151	Swiss screwdriver Chrome Vanadium size 0, 80mm	3.52

Screwdrivers

1+

BERNSTEIN4152	Swiss screwdriver Chrome Vanadium size 1, 90mm	3.74
BERNSTEIN4153	Swiss screwdriver Chrome Vanadium size 2,100mm	4.14
BERNSTEIN4154	Swiss screwdriver Chrome Vanadium size 3,120mm	5.39
BERNSTEIN4155	Swiss screwdriver Chrome Vanadium size 4,140mm	6.24
BERNSTEIN4156	Swiss screwdriver Chrome Vanadium size 5,160mm	7.14
BERNSTEIN4157	Swiss screwdriver Chrome Vanadium size 6,180mm	8.28
BERNSTEIN4255	Cross recess screwdriver PH size 0, 60mm	2.89
BERNSTEIN4256	Cross recess screwdriver PH size 1, 80mm	3.80
BERNSTEIN4257	Cross recess screwdriver PH size 2, 100mm	5.10
BERNSTEIN4258	Cross recess screwdriver PH size 3, 150mm	6.75
BERNSTEIN4271	Cross recess screwdriver PZ, size 0, 60mm	3.35
BERNSTEIN4272	Cross recess screwdriver PZ, size 1, 80mm	4.03
BERNSTEIN4273	Cross recess screwdriver PZ, size 2, 100mm	5.61
BERNSTEIN4274	Cross recess screwdriver PZ, size 3, 150mm	7.09
BERNSTEIN4222	Very long screwdriver, 3.0x0.5mm, 260mm	4.42
BERNSTEIN4223	Very long screwdriver, 4.0x1.0mm, 260mm	5.39
BERNSTEIN4224	Very long screwdriver, 5.5x1.2mm, 300mm	6.63
BERNSTEIN4227	Very long cross recess screwdriver PH size1,300mm	7.26
BERNSTEIN4228	Very long cross recess screwdriver PH size2,300mm	8.73
BERNSTEIN4229	Very long cross recess screwdriver PH size3,300mm	11.91
BERNSTEIN4322	Chubby screwdriver, 6.5x1.2mm, 25mm	4.25
BERNSTEIN4301	Miniature screwdriver 1.8x0.5mm, 40mm	0.24
BERNSTEIN4311	Screwdriver for grub screws 2.8x0.6mm, 80mm	0.94
BERNSTEIN4331	Assembly screwdriver, 6x1.0mm, 45mm	1.76
BERNSTEIN4502	Workshop screwdriver, 3x0.5mm, 75mm	2.95
BERNSTEIN4503	Workshop screwdriver, 4x0.8mm, 100mm	3.40
BERNSTEIN4504	Workshop screwdriver, 5x1.0mm, 100mm	4.99
BERNSTEIN4506	Workshop screwdriver, 6x1.2mm, 125mm	5.44
BERNSTEIN4508	Workshop screwdriver, 7x1.2mm, 150mm	7.20
BERNSTEIN4509	Workshop screwdriver, 8x1.2mm, 175mm	7.88
BERNSTEIN4522	Electrician screwdriver, 3x0.5mm, 75mm	2.95
BERNSTEIN4523	Electrician screwdriver, 4x0.8mm, 100mm	3.74
BERNSTEIN4524	Electrician screwdriver, 5x1.0mm, 150mm	4.59
BERNSTEIN4532	Cross recess screwdriver PH size 0, 60mm	3.35
BERNSTEIN4533	Cross recess screwdriver PH size 1, 80mm	4.20
BERNSTEIN4534	Cross recess screwdriver PH size 2, 100mm	5.39
BERNSTEIN4542	Cross recess screwdriver PZ, size 0, 60mm	4.03
BERNSTEIN4543	Cross recess screwdriver PZ, size 1, 80mm	4.82
BERNSTEIN4544	Cross recess screwdriver PZ, size 2, 100mm	6.52
BERNSTEIN4545	Cross recess screwdriver PZ, size 3, 150mm	9.75
BERNSTEIN4606	Screwdriver 2.5x0.4mm, 60mm, conductive material	3.86
BERNSTEIN4620	6-piece screwdriver set, conductive material	32.03
BERNSTEIN6679	TORX-screwdriver T4	6.01
BERNSTEIN6681	TORX-screwdriver T5	5.78
BERNSTEIN6682	TORX-screwdriver T6	5.27
BERNSTEIN6683	TORX-screwdriver T7	5.27
BERNSTEIN6684	TORX-screwdriver T8	5.27
BERNSTEIN4180	6-piece screwdriver set	34.70
BERNSTEIN4530	6-piece screwdriver set EUROLINE Power	31.47
BERNSTEIN4391	Watchmaker's screwdriver	6.97
BERNSTEIN4407	Screw holder blade, 4x4mm, 110mm	11.96
BERNSTEIN14603VDE	VDE screwdriver, 4x0.6mm, 100mm	4.03
BERNSTEIN14600VDE	7-piece VDE screwdriver set	32.66

Tweezers, files and knives

1+

BERNSTEIN5006	Component tweezers, 140mm, Ni-plated	7.88
BERNSTEIN5007	Component tweezers, 140mm, Ni-plated	7.60
BERNSTEIN5008	Component tweezers, 140mm, Ni-plated	7.60
BERNSTEIN5013	Component tweezers, 120mm, antimagnetic	12.36
BERNSTEIN5107	Tweezers, 150mm, bent tips, nickel-plated	7.60
BERNSTEIN51071	Tweezers, 150mm, bent tips, antiallergical coat	8.22
BERNSTEIN51076	Tweezers, 150mm, bent tips, PVC-insulated	8.45
BERNSTEIN5115	Heat dissipating tweezers, 165mm, nickel-plated	20.07
BERNSTEIN5117	Tweezers, 145mm, Ni-plated, straight-flat-wide	6.86
BERNSTEIN51171	Tweezers, 145mm, straight-flat,antiallergical coat	7.48
BERNSTEIN51176	Tweezers, 145mm, straight-flat,Ni-plated, PVC	7.71
BERNSTEIN5119	Jewellery tweezers	7.37
BERNSTEIN5121	Tweezers, 120mm, straight pointed tips, Ni-plated	4.76
BERNSTEIN51211	Tweezers, 120mm, straight tips,antiallergical coat	5.39
BERNSTEIN5095	Tweezers with ceramic tips, 130mm, slim pointed	38.66
BERNSTEIN5096	Tweezers with ceramic tips,130 mm, slim,2 mm	38.66
BERNSTEIN5131	Watchmaker's tweezers 110mm	12.98
BERNSTEIN5134	Watchmaker's tweezers 115mm	14.34
BERNSTEIN5155	Crossed tweezers, 160mm, nickel-plated	10.94
BERNSTEIN51551	Crossed tweezers, 160mm, antiallergical coating	11.57
BERNSTEIN5156	Crossed soldering tweezers, 160mm, nickel-plated	14.51
BERNSTEIN5031	Titan watchmaker's tweezers, 110mm, sharp	18.03
BERNSTEIN5035	Titan tweezers, 120mm, sharply pointed	19.84
BERNSTEIN5036	Titan tweezers, 145mm, straight-round-wide	19.96
BERNSTEIN5037	Titan tweezers, 150mm, fine bent tips	23.07
BERNSTEIN5051	Tweezers for SMT, 115mm,stainless,ACID resist	11.74

BERNSTEIN



Tweezers, files and knives

1+

BERNSTEIN5052	Tweezers for SMT, 110mm,stainless,ACID resist	13.78
BERNSTEIN5053	Tweezers for SMT, 110mm,stainless,ACID resist	14.97
BERNSTEIN5054	Tweezers for SMT, 120mm,stainless,ACID resist	14.97
BERNSTEIN5057	Tweezers for SMT, 120mm,stainless,ACID resist	15.36
BERNSTEIN5058	Tweezers for SMT, 120mm,stainless,ACID resist	17.23
BERNSTEIN5061	Special tweezers for SMT115mm,stainless,ACIDres.	11.79
BERNSTEIN5062	Special tweezers for SMT115mm,stainless,ACIDres.	13.78
BERNSTEIN5071	Special tweezers for SMT,85mm,stainless,ACIDres.	11.45
BERNSTEIN5075	Special tweezers for SMT135mm,stainless,ACIDres.	25.34
BERNSTEIN5190	6-piece set ESD/ECB tweezers	102.56
BERNSTEIN5050	6-piece set tweezers for SMT	89.46
BERNSTEIN5210	Needle file set, 6 pcs	15.02
BERNSTEIN5240	Needle file set, 6 pcs	8.84
BERNSTEIN5261	Contact file	0.91
BERNSTEIN5301	Special scissors, 110mm	10.77
BERNSTEIN5306	Universal cutting shears, 180mm	10.49
BERNSTEIN5308	Telephone and cable shears, 125mm	7.48
BERNSTEIN5304	Combination cutters, 190mm	14.46
BERNSTEIN5511	Pocket knife	7.71
BERNSTEIN5515	Universal blade knife	0.79
BERNSTEIN5516	Set of blades (10 pieces) for 5-515	1.70
BERNSTEIN5531	Automatic wire stripper Super	17.91

Wrenches

1+

BERNSTEIN6661	TORX-screwdriver T5	5.56
BERNSTEIN6663	TORX-screwdriver T7	5.16
BERNSTEIN6660	6-piece TORX-screwdriver-set	40.42
BERNSTEIN6634	Wrench key 1.5mm, conductive material	5.16
BERNSTEIN6635	Wrench key 2.0mm, conductive material	4.93
BERNSTEIN6630	6-piece wrench key set	37.13
BERNSTEIN6610	6-piece socket wrenches set	44.22
BERNSTEIN6104	Socket wrenches, long, with handle 5.0mm, 140mm	6.52
BERNSTEIN6812	Wrench key, 1.0mm	1.00
BERNSTEIN6825	Wrench key, 7.0mm	0.87
BERNSTEIN6820	8-piece wrench key set	3.52
BERNSTEIN6880	8-piece wrench key set (imperial dimensions)	3.91
BERNSTEIN7104	Engineer's hammer 200g.	3.52
BERNSTEIN7505	Tape measure 1 m.	3.74
BERNSTEIN7615	Pocket hack saw "Puk"	4.65
BERNSTEIN7617	Hack saw blade for 7-615	0.45

Special equipment

1+

BERNSTEIN9101	Magnifying lamp with bracket (table) standard	269.39
BERNSTEIN9108	Additional lens 4 diopter, magnification 1: 3 3/4	82.49
BERNSTEIN9109	Fluorescent ring lamp 22W, white	17.20
BERNSTEIN9251	Universal clamp mounting ball joint base	88.35
BERNSTEIN9252	Screw- on mounting vice	72.66
BERNSTEIN9361	ESD - handling set	108.66
BERNSTEIN9335	Grid mat conductive 625x375x20mm	85.04
BERNSTEIN9323/10	SMD box 41x37x15mm 10 pieces	16.63
BERNSTEIN9320	Cabinet for SMD boxes	52.44
BERNSTEIN9133	Fluorescent lamp with bracket	196.54
BERNSTEIN8135	ERSA soldering iron 15W, 220V	27.21
BERNSTEIN8143	Tip for ERSA / BERNSTEIN8135 soldering iron	3.40
HU/PHU CRIMP TOOL	Crimping Tool for HU/PHU	19.80
YAC-4	Crimping Tool	24.20
WY-03C		22.23

Lead forming equipment OLAMEF

1+

OLAMEF 20.OL01	TP6 man.cutting,bending machine for axial comp.	
OLAMEF 30.OL11	TP6/R11 man.cutting taped comp.P=12.7	
OLAMEF 40.OL05	TP6/PR-B cutting,bending,forming axial comp.	
OLAMEF 74.OL22	TP/TC4 cuttingmach for loose, taped,sticked comp.	
OLAMEF 8301.072	COUNTY	
OLAMEF 8301.018	SMD County adapter	
OLAMEF 8301.023	Complete support for rolled bandolier	
OLAMEF 8301.025	Bandolier handle	





Sony Manufacturing Systems Corporation



Sony SI-F209

*Compact-sized Fine-pitch
Electronic Part Mounter*

- ◆ Accuracy of **40µm at 4σ** (VQFP 48Pin);
- ◆ Speed: **7,350 CPH**;
- ◆ Max. 40 front feeders, 2x40 trays in the rear.

Sony SI-F130

*Compact-sized Electronic
Part Mounter*

- ◆ Accuracy of **50 µm at 4σ** (0603);
- ◆ Speed: 25,900 CPH;
- ◆ Max. 40 feeders in the front & 40 feeders in the rear.



Sony CAST-PROII

Versatile desktop robot.

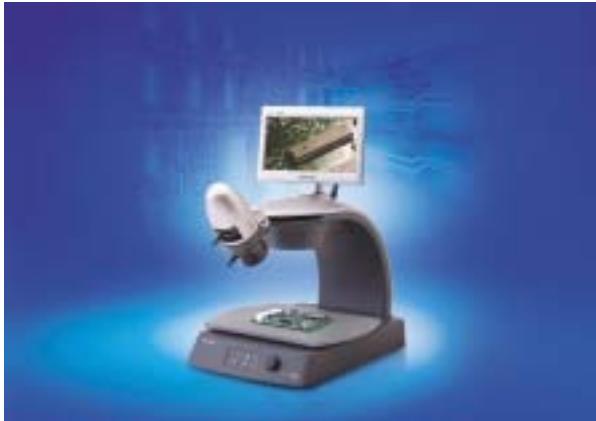
3-axis and 4-axis models available.



Sony SI-1C500

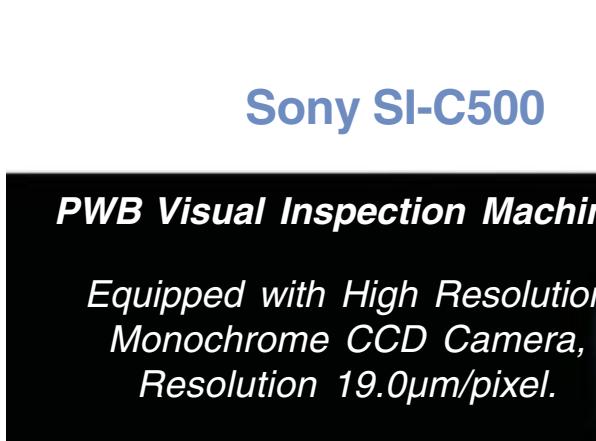
PWB Visual Inspection Machine.

Equipped with High Resolution Color CCD Camera, Resolution 15.5 or 22.0 $\mu\text{m}/\text{pixel}$.



Sony TechnoLOOK

*Video microscopes – TW-TL1V and TW-TL10V.
High performance CCD camera.
Power LED Illumination.
Optional 7" TFT Display. Can be connected to standard PC.*



Sony SI-C500

PWB Visual Inspection Machine.

*Equipped with High Resolution Monochrome CCD Camera,
Resolution 19.0 $\mu\text{m}/\text{pixel}$.*



Sony Manufacturing Systems Corporation

SMT technological equipment**DIMA SMT Systems**

1+

DIMA FP-300	modular pick&place,dispense,hot air
DIMA FP-500	complete Fineline pick&place
DIMA FP-600	fineline pick&place,dispense
DIMA FP-700	fineline pick&place,dispense,hot air
DIMA FA-1000	motor drive with foot pedal
DIMA FA-1100	color camera+monitor stand
DIMA FT-0807	tape feeder 8mm 7"reel
DIMA FT-0814	tape feeder 8mm 14"reel
DIMA FT-1207	tape feeder 12mm 7"reel
DIMA FT-1214	tape feeder 12mm 14"reel
DIMA FT-1607	tape feeder 16mm 7"reel
DIMA FS-0100	stick feeder SO 6,2/15,2 mm
DIMA FS-2800	stick feeder PLCC-28
DIMA FS-4400	stick feeder PLCC-44
DIMA FS-6800	stick feeder PLCC-68
DIMA FB-200	base plate for 20 feeders 20mm
DIMA FL-200	light guided PCB holder
DIMA FL-2200	ledbar with 20LED's for FL-200
DIMA FL-2400	carousel motor drive with LED's
DIMA SP-200	manual printer 250x350mm
DIMA SP-2500	stencil frame 250x350mm
DIMA SP-2700	squeegee 250mm
DIMA DO-1500	foot pedal
DIMA DO-2000	barrel holder
DIMA RO-402	reflow oven Zepher
DIMA RO-403	reflow oven Breeze leadfree
DIMA RO-4010	plateau for end of oven 400 mm

**Accessories for dispensers**

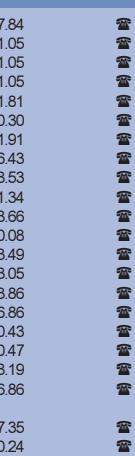
1-4 5-9 10-19 20+

VIP0011151	steel tip 1.6 mm GA14	0.51	0.47	0.45	0.42
VIP0011141	steel tip 1.32 mm GA15	0.51	0.47	0.45	0.42
VIP0011131	steel tip 1.19 mm GA16	0.51	0.47	0.45	0.42
VIP0011111	steel tip 0.84 mm GA18	0.51	0.47	0.45	0.42
VIP0011101	steel tip 0.69 mm GA19	0.51	0.47	0.45	0.42
VIP0011091	steel tip 0.58 mm GA20	0.51	0.47	0.45	0.42
VIPA013051	barrel 5 cc	0.60	0.55	0.52	0.49
VIPA014051	barrel 10 cc	0.81	0.75	0.71	0.67
VIPA015052	barrel 20 cc	1.18	1.08	1.03	0.97
VIPA016051	barrel 30 cc	1.08	1.00	0.94	0.89
VIPA643000	barrel cup 5 cc	0.51	0.47	0.45	0.42
VIPA644000	barrel cup 10 cc	0.51	0.47	0.45	0.42
VIPA646000	barrel cup 30 cc	0.62	0.57	0.54	0.51
VPE415151	tapered tip,GA14,1.6 mm	0.60	0.55	0.52	0.49
VPE415131	tapered tip,GA16,1.19 mm	0.60	0.55	0.52	0.49
VPE415111	tapered tip,GA18,0.84 mm	0.60	0.55	0.52	0.49
VPE415091	tapered tip,GA20,0.58 mm	0.60	0.55	0.52	0.49
VPE415071	tapered tip,GA22	0.60	0.55	0.52	0.49
VIPA513401	piston 5 cc	0.35	0.32	0.31	0.29
VIPA514401	piston 10 cc	0.51	0.47	0.45	0.42
VIPA516401	piston 30 cc	0.81	0.75	0.71	0.67

Soldering materials INTERFLUX

1+ 10+

IF8001FLUXPEN	FluxPen cont. flux IF8001	27.84	
IFSTNCLN	Stencil Clean pre-saturated wipes	21.05	
IFADHREM	Adhesive Remover pre-saturated wipes	21.05	
IFTABLE CLEAN WIPES	Table Clean pre-saturated wipes	21.05	
IFISC8020 Stencil Clean 10L	Stencil Cleaning Fluid, alcohol based	71.81	
IFT710	Peelable soldermask 225g tubes	10.30	
IF LECTRO LOTION	Hand cream ESD safe	1.91	
IFGLASSPLATE	Glassplate for solder wave adjustment	176.43	
IF3120SD	Thermo-curing SMT adhesive 30cc	28.53	
IF8001FLUX	Flux,low-residue,synthetic, for repair 1 liter	31.34	
IF8300BGA10	Flux paste,no-clean,VOC free,water based,3.7%solids	18.66	
IF8300BGA30	Flux paste,no-clean,low-res.,30cc	20.08	
IF910	De-Oxidation Oil 1l	23.49	
IFANTIOX250	Anti-Oxidant Pellets 250g flacons	33.05	
IFANTIOX250 Lead-free	Anti-Oxidant Pellets 250g for Lead-free	43.86	
IF2009MLF 10L	LF Flux,no-clean,VOC free,water based,3.7%solids	106.86	
IFIC2010F25L	Flux,no-clean,VOC free,water based,25l	240.43	
IF2005M25L	No-res flux,alcoh.based,100-130°C,25l	320.47	
IF2005M10L	No-res flux,alcoh.based,100-130°C,10l	128.19	
IFT2005M10L	Thinner,100-130°C,10l	106.86	
IFT8180L	No-clean flux,alcoh.based,1.8%,70-120°C	97.35	
IFT83310L	No-clean flux,alcoh.based,3.3%,70-120°C	80.24	





Let us gear up your production

*Manufacturing machines and tools for the Electronic Industry”
Pick and place, Reflow, Dispensing, Printing and Coating
machines are products the DIMA successfully developed.*

DIMA HYBRID HP-110

- ◆ Full vision Pick & Place machine;
- ◆ Accuracy 50µ at 3;
- ◆ Speed: 4600 CPH (IPC 9850 rated);
- ◆ Fully SMEMA compatible interface;
- ◆ Intelligent feeding system;
- ◆ 80 feeders slots (8 or 12mm) – front and rear side;
- ◆ Offline version available (HP-100, 132 feeder slots max. expandable 4 sides).



DIMA HYBRID HS-100

- ◆ Semi-automatic stencil printer;
- ◆ ESI Correctplace vision system for PCB alignment;
- ◆ Print area 450x400mm;
- ◆ PCB size from 40x40mm to 520x400mm.

DIMA DD-500 Dispense Master

- ◆ Semi-automatic Desktop dispenser;
- ◆ Suitable for dispensing solder pastes, SMT adhesives, Conformal coating etc.;
- ◆ Dot speed 12,000 dots/hour, line speed 80mm/sec.



DIMA RO-500 Solano



- ◆ Reflow oven, lead-free approved. 2250mm Tunnel length;
- ◆ 5 independent controlled heating zones, internal cooling zone;
- ◆ 500mm wide mesh conveyor;
- ◆ Solano RO-510 with mesh and pin conveyor available.

DIMA RO-403 Breeze

- ◆ Reflow oven, lead-free capable;
- ◆ 8 independent controlled heating zones & 1 cooling zone with ionizer;
- ◆ 400mm wide mesh conveyor.



DIMA Hybrid Selective Conformal Coater HC-100 and HC-200

HC-100 – 3 axis controlled + tilt coating machine. Inline and offline available.

HC-200 - 4 axis controlled + tilt coating machine. Inline and offline versions available.

Soldering materials INTERFLUX

		1+	10+
IFT1000	Thinner,70-120°C,10l	57.35	■
IF9009LTK 0.5kg	Sn62Pb36Ag2;25-45um;179°C;89.5%metal	49.70	■
IF9009LTSC 10CC	Sn62Pb36Ag2;25-45um;179°C;84%;m.,10cc	15.02	■
IFDelphine5503 405 10cc	Sn95.5Ag4Cu0.5;25-45um;217°C;84%;m.,10cc	18.65	■
IFDelphine5503 305 10cc	Sn96.5Ag3Cu0.5;25-45um;217°C;84%;m.,10cc	18.27	■
IF9009LTS 30CC	Sn62Pb36Ag2;25-45um;179°C;84%;m.,30cc	23.81	■
IFDELPHINE5502 SAC405 LF	0.5kg Sn95.5Ag4Cu0.5;25-45um;217°C;88%metal	68.72	■
IFDELPHINE5503 SAC405 LF	0.5kg Sn95.5Ag4Cu0.5;25-45um;217°C;88%metal	68.72	■
IFDELPHINE5503 SAC305 LF	0.5kg Sn96.5Ag3Cu0.5;25-45um;217°C;88%metal	67.39	■
IFDELPHINE5503 305 0.25LF	0.25kg Sn96.5Ag3Cu0.5;25-45um;217°C;88%metal	33.69	■
IFNX9900IK 0.5kg	Sn62Pb36Ag2;25-45um;90%metal	49.70	■
IFDENSITYMETER	Density meter with temp. compensation	97.72	■
IFGLASSHOLDER	Glassholder for densitymeter	19.01	■

Solderwire INTERFLUX

		1-4	5-9	10-19	20+
IF14-10 0.5mm 0.5kg	Sn63Pb37,no-clean,low-res,1.0% flux,360°C	11.39	10.88	10.47	10.17
IF14-10 0.7mm 0.5kg	Sn63Pb37,no-clean,low-res,1.0% flux,360°C	11.05	10.56	10.16	9.87
IF14-10 1.0mm 0.5kg	Sn63Pb37,no-clean,low-res,1.0% flux,360°C	10.80	10.32	9.93	9.64
IF14-10 1.5mm 0.5kg	Sn63Pb37,no-clean,low-res,1.0% flux,360°C	10.80	10.32	9.93	9.64
IF14-06 1.0mm 0.5kg	Sn63Pb37,no-clean,no-res,0.6% flux,320°C	10.06	9.61	9.25	8.98
IF14-06Ag2 0.5mm 0.5kg	Sn62Pb36Ag2,no-clean,n.res,0.6% flux,320°C	27.99	26.74	25.74	24.99
IF14-09Ag2 1.0mm 0.5kg	Sn62Pb36Ag2,no-clean,l.res,0.9% flux,360°C	20.18	19.28	18.56	18.02
IF14-09 0.35mm 0.1kg	Sn63Pb37,no-clean,low residue,0.9% flux,360°C	18.97	18.13	17.45	16.94
IFR88 0.5mm 0.5kg	Sn63Pb37,no-clean,coloph,0.88% flux,350°C	11.39	10.88	10.47	10.17
IFR88 0.7mm 0.5kg	Sn63Pb37,no-clean,coloph,0.88% flux,350°C	11.05	10.56	10.16	9.87
IFR88 1.0mm 0.5kg	Sn63Pb37,no-clean,coloph,0.88% flux,350°C	10.80	10.32	9.93	9.64
IFR88 1.5mm 0.5kg	Sn63Pb37,no-clean,coloph,0.88% flux,350°C	10.80	10.32	9.93	9.64
IF14 Ag2 0.5mm 0.5kg	Sn62Pb36Ag2,no-clean,1.4% flux,360°C	26.23	25.06	24.12	23.42
IF14 Ag2 0.7mm 0.5kg	Sn62Pb36Ag2,no-clean,1.4% flux,360°C	22.49	21.48	20.68	20.08
IF14 Ag2 1.0mm 0.5kg	Sn62Pb36Ag2,no-clean,1.4% flux,360°C	17.77	16.98	16.34	15.87
IF14 Ag2 1.5mm 0.5kg	Sn62Pb36Ag2,no-clean,1.4% flux,360°C	19.12	18.27	17.58	17.07
IF14 Sn60Pb40 0.5mm 0.5kg	Sn60Pb40 no-clean,1.4% flux,360°C	16.64	15.90	15.30	14.86
IF14 Sn60Pb40 0.7mm 0.5kg	Sn60Pb40 no-clean,1.4% flux,360°C	13.34	12.75	12.27	11.91
IF14 Sn60Pb40 1.0mm 0.5kg	Sn60Pb40 no-clean,1.4% flux,360°C	12.59	12.03	11.58	11.24
IF14 Sn99.3Cu0.7 0.5mmLF	Sn99.3Cu0.7 0.5kg, 1.6% flux, 360°C - leadfree	22.21	21.22	20.42	19.83
IF14 Sn99.3Cu0.7 0.7mmLF	Sn99.3Cu0.7 0.5kg, 1.6% flux, 360°C - leadfree	18.21	17.40	16.75	16.26
IF14 Sn99.3Cu0.7 1.0mmLF	Sn99.3Cu0.7 0.5kg, 1.6% flux, 360°C - leadfree	16.19	15.47	14.89	14.46
IF14-22Sn99.3Cu0.7 0.7mm	Sn99.3Cu0.7 0.5kg, 2.2% flux, 360°C - leadfree	18.39	17.57	16.91	16.42
IF14 Sn96.5Ag3.5 0.5mmLF	Sn96.5Ag3.5 0.5kg, 1.6% flux, 360°C - leadfree	40.11	38.32	36.89	35.81
IF14 Sn96.5Ag3.5 0.7mmLF	Sn96.5Ag3.5 0.5kg, 1.6% flux, 360°C - leadfree	40.54	38.73	37.28	36.19
IF14 Sn96.5Ag3.5 1.0mmLF	Sn96.5Ag3.5 0.5kg, 1.6% flux, 360°C - leadfree	34.10	32.58	31.36	30.45
IF14 Sn96.5Ag3Cu0.5 0.5mm	0.45kg LF Sn96.5Ag3Cu0.5,no-clean,1.4% flux,360°C	38.68	36.95	35.57	34.53
IF14 Sn96.5Ag3Cu0.5 0.7mm	0.45kg LF Sn96.5Ag3Cu0.5,no-clean,1.4% flux,360°C	35.24	33.67	32.41	31.47
IF14 Sn96.5Ag3Cu0.5 1mm	0.45kg LF Sn96.5Ag3Cu0.5,no-clean,1.4% flux,360°C	33.26	31.78	30.59	29.70
IFFlexSol 903 SAC305 0.7mm	LF 0.5kg Sn96.5Ag3Cu0.5,2.2%rosin flux,360°C	37.34	35.68	34.34	33.34
IFFlexSol 903 SAC305 1.0mm	LF 0.5kg Sn96.5Ag3Cu0.5,2.2%rosin flux,360°C	37.04	35.38	34.06	33.07
IFFlexSol 903 SnCu 0.7mm	LF 0.5kg Sn99.3Cu0.7, 2.2% rosin flux, 360°C	18.90	18.06	17.38	16.88
IFFlexSol 903 SnCu 1.0mm	LF 0.5kg Sn99.3Cu0.7, 2.2% rosin flux, 360°C	18.59	17.77	17.10	16.60
IFSOLDERBARS Sn96.5Ag3.5	Sn96.5Ag3.5, 1kg solderbar, 221°C - leadfree	34.19			
IFSOLDERBARS SAC305 LF	Sn96.5Ag3Cu0.5, 1kg solderbar, 217°C - leadfree	42.17			
IFSOLDERBARS	Sn63Pb37,solderbars+AB6993, 183°C	13.46			

Soldering equipment JBC - irons

		1+
JBC1920252	Soldering iron 14S, 230V	39.86
JBC0150805	Tip B-05D d=1mm	10.77
JBC0150409	Tip B-10D d=1.5mm	10.77
JBC0150508	Tip B-20D 2x1.2 mm	10.77
JBC0150607	Tip B-40D 3x1.5 mm	10.77
JBC0550200	Tip C-05D d=1 mm	11.18
JBC0150900	Minispoon MS-10D	18.85
JBC3302056	Soldering iron 25W, 30S, 230V	32.05
JBC2020200	Soldering iron SL2020, 230V	78.10
JBC0300707	Tip PH-12D d=1.2 mm	10.10
JBC0390401	Tip R-05D d=1 mm	10.10
JBC0300905	Tip R-10D d=1.5 mm	8.35
JBC0300400	Tip B-15D d=2.2 mm	8.35
JBC0400200	Tip B-16D d=2.3 mm	8.35
JBC0400309	Tip B-21D d=3 mm	8.35
JBC0300806	Tip TL-3D d=3 mm	11.45
JBC0400804	Tip T-05D 1.5x1 mm	11.45
JBC0300509	Tip T-20D 3x1.5 mm	8.35
JBC0300608	Tip T-40D 4.5x1.5 mm	8.35
JBC3652054	Soldering iron 32W, 65S, 230V	34.74
JBC0650903	Tip R-20D d=2 mm	11.45
JBC0650606	Tip T-25D 3x1.5 mm	11.45
JBC0650408	Tip T-65D 6x2 mm	11.45
JBC0114108	Tip inserter/extractor clip	28.28

Soldering equipment JBC - irons

1+

JBC0502020	Soldering iron 70W 230V 50 S LD	79.44
JBC050405	50D long- life tip	11.31
JBC0802020	Soldering iron 95W 230V 80 S LD	82.14
JBC080409	80D long- life tip	12.52
JBC0182020	Soldering iron 150W 230V 150 S LD	124.82
JBC0180420	150D long- life tip	22.22
JBC0187300	SS 7300 stand	88.87
JBC0119107	Desoldering pump	43.09
JBC0119560	Replacement nozzle d=2.4 mm	3.23

Soldering equipment JBC - stations

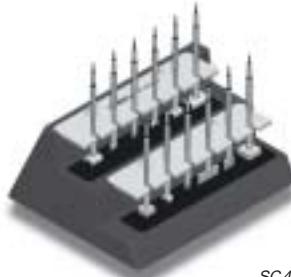
1+

JBC2700200	AD 2700 Control unit, leadfree	377.02
JBC300200	DI 3000 Digital control unit	525.14
JBC3210200	IB3210 Soldering Station with 50W Soldering Iron	276.04
JBC4300200	AD 4300 Dual control unit	666.52
JBC5410200	TE5400WE Hot Air Station without accessories	1359.98
JBC5600000	DR 5600 desoldering iron	363.56
JBC5600001	Desoldering tip 5600-001 for AR 5600	22.89
JBC5600002	Desoldering tip 5600-002 for AR 5600	22.89
JBC5600003	Desoldering tip 5600-003 for AR 5600	22.89
JBC5600004	Desoldering tip 5600-004 for AR 5600	22.89
JBC5600005	Desoldering tip 5600-005 for AR 5600	22.89
JBC5700232	DD5700 2 tools kit	1249.57
JBC6800200	AM 6800 Rework station, leadfree	3500.94
JBC7710200	JT7700 900W Hot Air Station without accessories	1696.61
JBCG700230	DM6700 4 Tools kit	2939.44
JBC9001000	MS 9001 monitor	807.91
JBC9002200	MS 9002 power supply	605.93
JBC9003000	MS 9003 stands block	1481.17
JBC9004000	MS 9004 desoldering pump	403.95
JBC0788930	MS 8930 stand submodul for 2210 soldering iron	100.99
JBC0788950	MS 8950 stand submodul for 2245 soldering iron	100.99
JBC0788970	MS 8970 stand submodul for AP1300 sold. feed iron	100.99
JBC0788910	MS 8910 stand submodul for PA1200 tweezers	100.99
JBC0788940	MS 8940 stand submodul for PA4200 tweezers	100.99
JBC0788960	MS 8960 stand submodul for DR5600 desold.iron	100.99
JBC2210000	AD 2210 Handpiece 25 W	78.10
JBC2210001	Cartridge 2210-001	35.01
JBC2210002	Cartridge 2210-002	35.01
JBC2210003	Cartridge 2210-003	35.01
JBC2210004	Cartridge 2210-004	35.01
JBC2210006	Cartridge 2210-006	35.01
JBC2210007	Cartridge 2210-007	35.01
JBC2210008	Cartridge 2210-008	35.01
JBC2210009	Cartridge 2210-009	35.01
JBC2210013	Cartridge 2210-013 d=0.5mm	37.70
JBC2245000	AD 2245 Handpiece 45 W	82.14
JBC2245110	2245110 Comfort hand pieces 45 W	87.52
JBC0788210	AD 8210 Stand for 2210 handpieces	127.92
JBC0788245	AD 8245 Stand for 2245 handpieces	114.45
JBC2245001	Cartridge 2245-001	30.97
JBC2245003	Cartridge 2245-003	30.97
JBC2245004	Cartridge 2245-004	36.36
JBC2245006	Cartridge 2245-006	33.66
JBC2245007	Cartridge 2245-007	33.66
JBC2245008	Cartridge 2245-008	33.66
JBC2245009	Cartridge 2245-009	47.13
JBC2245010	Cartridge 2245-010	47.13
JBC2245011	Cartridge 2245-011	33.66
JBC2245016	Cartridge 2245-016	47.13
JBC2245017	Cartridge 2245-017	47.13
JBC2245018	Cartridge 2245-018	47.13
JBC2245019	Cartridge 2245-019	47.13
JBC2245029	Cartridge 2245-029	36.36
JBC2245030	Cartridge 2245-030	36.36
JBC2245031	Cartridge 2245-031	47.13
JBC2245032	Cartridge 2245-032	30.97
JBC2245035	Cartridge 2245-035	36.36
JBC2245036	Cartridge 2245-036	36.36
JBC2245037	Cartridge 2245-037	30.97
JBC2245039	Cartridge 2245-039	47.13
JBC2245043	Cartridge 2245-043	33.66
JBC2245057	Cartridge 2245-057 d=0.6mm	36.36
JBC2245013 / 2245213	Cartridge 2245-013 / 2245-213	53.86
JBC2245014 / 2245214	Cartridge 2245-014 / 2245-214	53.86
JBC2245015 / 2245215	Cartridge 2245-015 / 2245-215	53.86
JBC2245020 / 2245220	Cartridge 2245-020 / 2245-220	53.86
JBC2245021 / 2245221	Cartridge 2245-021 / 2245-221	53.86
JBC2245022 / 2245222	Cartridge 2245-022 / 2245-222	53.86
JBC2245023 / 2245223	Cartridge 2245-023 / 2245-223	53.86
JBC2245024 / 2245224	Cartridge 2245-024 / 2245-224	53.86

Soldering equipment JBC



AD4300



SC4945



AP1300



MS9000



DI3000



JT7000



PA1200



AC2600



PA4200



TI2800

Soldering equipment JBC - stations

1+

JBC2245027 / 2245227	Cartridge 2245-027 / 2245-227	53.86
JBC2245028 / 2245228	Cartridge 2245-028 / 2245-228	53.86
JBC2245903	Cartridge 2245-903	41.74
JBC2245906	Cartridge 2245-906	41.74
JBC2245907	Cartridge 2245-907	41.74
JBC2245930	Cartridge 2245-930	41.74
JBC2245944	Cartridge 2245-944	41.74
JBC2245957	Cartridge 2245-957 d=0,8mm lead-free	43.09
JBC1300000	AP 1300 solder feed iron	127.92
JBC0552315	Reel with 50g. 1mm 60/40 solder for AP1300	6.73
JBC0788130	AP 8130 Stand for AP 1300 solder feed iron	114.45
JBC2245204	Cartridge 2245-204	40.40
JBC1200000	PA 1200 Micro hot tweezers	130.61
JBC0748110	PA 8110 Stand for PA 1200 tweezers	114.45
JBC1200001	Cartridge 1200-001 for PA 1200 tweezers	44.44
JBC1200002	Cartridge 1200-002 for PA 1200 tweezers	44.44
JBC1200003	Cartridge 1200-003 for PA 1200 tweezers	44.44
JBC1200005	Cartridge 1200-005 for PA 1200 tweezers	44.44
JBC4200000	PA 4200 Hot tweezers	119.84
JBC0748120	PA 8120 Stand for PA 4200 tweezer	114.45
JBC2245271	Cartridge 2245-271 for PA 4200 tweezers	51.17
JBC2245272	Cartridge 2245-272 for PA 4200 tweezers	51.17
JBC2245273	Cartridge 2245-273 for PA 4200 tweezers	57.90
JBC2245274	Cartridge 2245-274 for PA 4200 tweezers	57.90
JBC2245276	Cartridge 2245-276 for PA 4200 tweezers	57.90
JBC2245277	Cartridge 2245-277 for PA 4200 tweezers	57.90
JBC2245278	Cartridge 2245-278 for PA 4200 tweezers	57.90
JBC2245279	Cartridge 2245-279 for PA 4200 tweezers	60.59
JBC2245280	Cartridge 2245-280 for PA 4200 tweezers	60.59
JBC2245281	Cartridge 2245-281 for PA 4200 tweezers	57.90
JBC2245282	Cartridge 2245-282 for PA 4200 tweezers	57.90
JBC0490100	SC4945 Cartridge stand	168.31
JBC9400000	TT 9400 tip cleaner	8.08
JBC9900000	TT 9900 tip cleaner	9.43
JBC2600000	AC 2600 Console	309.70
JBC2800000	TI 2800 Thermometer	336.63
JBC2800010	Sensor thermometer	47.13
JBC0780413 / 0001069	Sponge for the stand of the AD 2200 / 2700 station	1.48
JBC0780415	Sponge for the AD8220,DR8500,PA8120 stands	1.48
JBC0780612	Sponge for the MS8990 stand	3.37
JBC0780840	Filter 0780840 for desoldering iron DR 5600	4.05
JBC0786620	Filter 0786620	7.03
JBC0861540	Spare parts nozzle d=0.8 angle for MP 2260	4.04
JBC0861560	Spare parts nozzle d=0.9 angle for MP 2260	4.04
JBC0861580	Spare parts nozzle d=1.2 angle for MP 2260	4.04
JBC0901512	Spare parts nozzle d=0.7 for MP 2260	3.64
JBC0901520	Spare parts nozzle d=0.9 for MP 2260	3.64
JBC0901538	Spare parts nozzle d=1.2 for MP 2260	3.64
JBC0930110	set of 4 suction cups for extractor	5.71
JBC0965970	set of tools	24.56

ESD Equipment and materials - ELME

1+

ELME ESD 157/4060B KIT	ESD kit: bench mat+ wire+ one touch band wrist	49.27
ELME ESD 157/6090G KIT	ESD kit: bench mat+ wire+ one touch band wrist	76.26
ELME ESD 157+749 DUO KIT	ESD benching and flooring kit	262.80
ELME WIRE BOTTONE 10-RING	Groung cord bottone 10mm-ring, 3m length, 1MOhm	9.86
ELME ESD GND CPG 2000	Earth bonding point with 1Mohm resistor	52.79

ESD Equipment and materials from ELME



ESD Equipment and materials - ELME

1+

ELME ESD GND CPG 3000	Earth bonding point with 1Mohm resistor	37.54
ELME ESD ONE TOUCH BAND/4	One touch wrist band antiallergic for EPA 4mm snap	7.51
ELME ESD ONE TOUCH BAND10	One touch wrist band antiallergic for EPA 10mm snap	7.51
ELME WIRE BANANA 15-4	Wrist band groung cord banana 4mm, 1.5m lenth	4.69
ELME WIRE BOTTONE 15-4	Wrist band groung cord bottone 10mm, 1.5m lenth	4.69
ELME WIRE BOTTONE 15-10	Wrist band groung cord bottone 10mm-10mm, 1.8m lenth	5.40
ELME ESD 2000 BLACK SET	2000 black set with metal wrist band	36.35
ELME ZAD 9000-B ESD SHOES	ESD Shoes	84.82
ELME FOOT GND STV-U/R2	Man heelgrounder with 2Mohm resistor	9.34
ELME FOOT GND STV-D/R2	Woman heelgrounder with 2Mohm resistor	9.34
ELME ESD PEQ 901	ESD PEQ for woman	44.84
ELME ESD COTTON GLOVES	ESD cotton gloves	1.92
ELME CIC-36 ESD DRAWER	ESD drawer 307x420x146mm with 36 drawers	187.71
ELME ESD CHAIR VERA K1-P	ESD chair VERA K1-P	227.60
ELME ESD CHAIR CLEAN K2-R	ESD chair CLEAN K2-R	283.92
ELME ESD SIT COVER SET	ESD seat cover set for chair	61.01
ELMEWARN. SIGN EAL-1025	ESD warning label 100/250mm, pack of 4pcs.	22.29
ELME WARN. SIGN EAL-3060	ESD warning sign 300/600mm, engl. language	34.73
ELME FLUXPEN	Fluxpen	14.55
ELME FLUXBOTTLE	Fluxbottle	12.11
ELME FLUXTIP SCREWDRIVER	Fluxtip, screwdriver type	2.09
ELME EMR MINI MIRRORS SET	EMR vision set ESD, handle+3 probes + glasswipre	129.05
ELME VAMPIRE CLASSIC SET	Vacuum pick up "VAMPIRE" for SMD divices	36.37
ELME VYPER DESOLD.PUMP	Desoldering pump "Viper" ESD	8.21
ELME MINI DESOLD.PUMP	Desoldering pump "MINI"	4.69
ELME ZIPP-ZAPP TOOL	Opening IC-tubes tool "ZIPP-ZAPP"	10.91
ELME ESD EB30 BRUSH	ESD cond. abrasive brush EB30	7.63
ELME EB PRO ESD BRUSH	ESD cond. abrasive brush EB PRO	32.85
ELME ESD LABEL EAS-0408	ESD warning labels 40/80mm, roll of 1000pcs.	90.88
ELME SHIELD BAG SM-1525	Static shielding bag 152x250mm	0.21
ELME SHIELD BAG SM-2530	Static shielding bag 250x300mm	0.32
ELME SHIELD BAG SMZ-1520	Static shielding bag with zip150x200mm	0.44
ELME PINK A/S BAG SA-1525	Antistatic bag 150x200mm, pink	0.11
ELME PINK A/S BAG SA-2530	Antistatic bag 250x300mm, pink	0.14
ELME PINK A/S BAG SA-2535	Antistatic bag 250x350mm, pink	0.17
ELME PINK A/S BAG SA-3040	Antistatic bag 300x400mm, pink	0.22
ELME PLAC 9000	Antistatic bubble film- roll 1.25x200m	1.41
ELME ESD WALL TESTER	ESD shoes & wristband wall mount tester	328.50

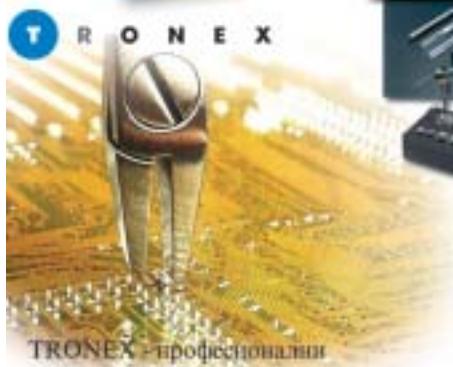
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