

FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.
- For bi-directional indicate a C or CA suffix after the part number (i.e. SMCJ5.0C or SMCJ5.0CA)

MAXIMUM RATINGS

Rating	Value
Peak power dissipation	1500W at 10/1000 μ s (see fig. 1 & 2)
T _{clamping} (0 V to V _(BR) min)	< 1x 10 ⁻¹² seconds
Forward surge rating	200 amps, 1/120 seconds @ 25°C(excluding bidirectional)
Operating and storage temperature range	-65° to 150°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Part number	Reverse stand-off voltage ⁽¹⁾	Breakdown voltage			Maximum clamping voltage	Peak pulse current	Maximum reverse leakage
		V _(BR) @ I _T					
		V _{WM}		I _T		I _{PP}	I _D
Modified "J" bend lead	VOLTS	MIN	MAX	mA	VOLTS	AMPS	μ A
SMCJ5.0A	5.0	6.40	7.00	10	9.2	163.0	1000
SMCJ6.0A	6.0	6.67	7.37	10	10.3	145.6	1000
SMCJ6.5A	6.5	7.22	7.98	10	11.2	133.9	500
SMCJ7.0A	7.0	7.78	8.60	10	12.0	125.0	200
SMCJ7.5A	7.5	8.33	9.21	1	12.9	116.3	100
SMCJ8.0A	8.0	8.89	9.83	1	13.6	110.3	50
SMCJ8.5A	8.5	9.44	10.4	1	14.4	104.2	25
SMCJ9.0A	9.0	10.0	11.1	1	15.4	97.4	10
SMCJ10A	10	11.1	12.3	1	17.0	88.2	5
SMCJ11A	11	12.2	13.5	1	18.2	82.4	5
SMCJ12A	12	13.3	14.7	1	19.9	75.3	5
SMCJ13A	13	14.4	15.9	1	21.5	69.7	5
SMCJ14A	14	15.6	17.2	1	23.2	64.7	5
SMCJ15A	15	16.7	18.5	1	24.4	61.5	5
SMCJ16A	16	17.8	19.7	1	26.0	57.7	5
SMCJ17A	17	18.9	20.9	1	27.6	53.3	5
SMCJ18A	18	20.0	22.1	1	29.2	51.4	5
SMCJ20A	20	22.2	24.5	1	32.4	46.3	5
SMCJ22A	22	24.4	26.9	1	35.5	42.2	5
SMCJ24A	24	26.7	29.5	1	38.9	38.6	5
SMCJ26A	26	28.9	31.9	1	42.1	35.6	5
SMCJ28A	28	31.1	34.4	1	45.4	33.0	5
SMCJ30A	30	33.3	36.8	1	48.4	31.0	5
SMCJ33A	33	36.7	40.6	1	53.3	28.1	5

SMC SERIES

TRANSIENT VOLTAGE SUPPRESSORS

Part number	Reverse stand-off voltage ⁽¹⁾	Breakdown voltage			Maximum clamping voltage @ I _{PP}	Peak pulse current I _{PP}	Maximum reverse leakage @ V _{WM}
		V _(BR) @ I _T		I _T			
	V _{WM}	MIN	MAX	mA	VOLTS	AMPS	I _D μA
Modified "J" bend lead	VOLTS						
SMCJ36A	36	40.0	44.2	1	58.1	25.8	5
SMCJ40A	40	44.4	49.1	1	64.5	23.2	5
SMCJ43A	43	47.8	52.8	1	69.4	21.6	5
SMCJ45A	45	50.0	55.3	1	72.7	20.6	5
SMCJ48A	48	53.3	58.9	1	77.4	19.4	5
SMCJ51A	51	56.7	62.7	1	82.4	18.2	5
SMCJ54A	54	60.0	66.3	1	87.1	17.2	5
SMCJ58A	58	64.4	71.2	1	93.6	16.0	5
SMCJ60A	60	66.7	73.7	1	96.8	15.5	5
SMCJ64A	64	71.1	78.6	1	103.0	14.6	5
SMCJ70A	70	77.8	86.0	1	113.0	13.3	5
SMCJ75A	75	83.3	92.1	1	121.0	12.4	5
SMCJ78A	78	86.7	95.8	1	126.0	11.4	5
SMCJ85A	85	94.4	104.0	1	137.0	10.4	5
SMCJ90A	90	100	111	1	146.0	10.3	5
SMCJ100A	100	111	123	1	162.0	9.3	5
SMCJ110A	110	122	135	1	177.0	8.4	5
SMCJ120A	120	133	147	1	193.0	7.8	5
SMCJ130A	130	144	159	1	209.0	7.2	5
SMCJ150A	150	167	185	1	243.0	6.2	5
SMCJ160A	160	178	197	1	259.0	5.8	5
SMCJ170A	170	189	209	1	275.0	5.5	5

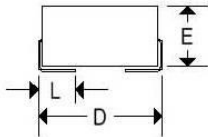
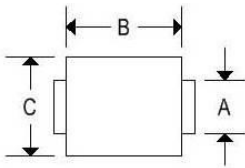
Note 1: Transient absorption zener diodes are normally selected according to the reverse stand off voltage which should be equal to or greater than the DC or continuous peak operating voltage level.

SMC SERIES

TRANSIENT VOLTAGE SUPPRESSORS

MECHANICAL CHARACTERISTICS

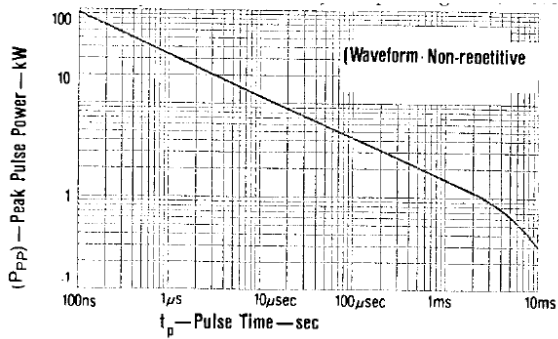
Case:	DO-214AB
Marking:	Body painted, alpha-numeric
Polarity:	Cathode band



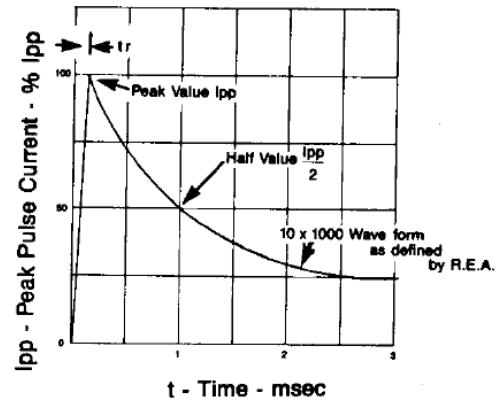
	DO-214AB			
	Inches		Millimeters	
	Min	Max	Min	Max
A	0.108	0.128	2.743	3.250
B	0.260	0.280	6.600	7.110
C	0.220	0.245	5.590	6.220
D	0.305	0.320	7.750	8.130
E	0.079	0.103	2.007	2.616
L	0.030	0.060	0.760	1.520

SMC SERIES

TRANSIENT VOLTAGE SUPPRESSORS

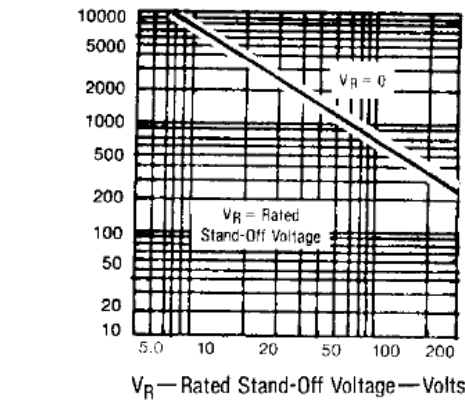
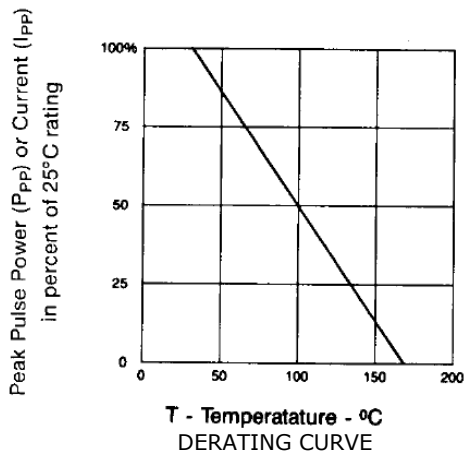


PEAK PULSE POWER VS PULSE TIME



PULSE WAVEFORM

(Test wave form parameters $t_r = 10\mu s$, $t_p = 1000\mu s$)



TYPICAL CAPACITANCE VS STAND-OFF VOLTAGE