

# Silicon Transistors



## electrical characteristics: (25°C) (unless otherwise specified)

### D-C CHARACTERISTICS

	Min.	Typ.	Max.
<b>Collector Cutoff Current</b> ( $V_{CB} = 25V$ ) ( $V_{CB} = 25V, T_A = 100^\circ C$ )	$I_{CBO}$		0.1 $\mu A$
	$I_{CBO}$		15 $\mu A$
<b>Emitter Cutoff Current</b> ( $V_{EB} = 5V$ )	$I_{EBO}$		0.1 $\mu A$
<b>Forward Current Transfer Ratio</b> ( $V_{CB} = 4.5V, I_C = 2 mA$ )	$h_{FE}$		
2N2923		115	
2N2924		155	
2N2925		215	

### SMALL SIGNAL CHARACTERISTICS

	Min.	Typ.	Max.
<b>Forward Current Transfer Ratio</b> ( $V_{CB} = 10V, I_C = 2 mA, f = 1kHz$ )	$h_{fe}$		
2N2923	90		180
2N2924	150		300
2N2925	235		470
<b>Input Impedance</b> ( $V_{CB} = 10V, I_C = 2 mA, f = 1kHz$ )	$h_{ib}$	15	ohms

### HIGH FREQUENCY CHARACTERISTICS

	Min.	Typ.	Max.
<b>Collector Capacitance</b> ( $V_{CB} = 10V, I_E = 0, f = 1MHz$ )	$C_{cb0}$	4.5	10 pF
<b>Gain Bandwidth Product</b> ( $I_C = 4 mA, V_{CB} = 5V$ )	$f_T$	160	MHz

### NOISE

<b>Noise Figure</b> ( $I_C = 100 \mu A, V_{CB} = 5V, f = 10kHz,$ $BW = 1 Hz, R_g = 2000\Omega$ )	N. F.	2.8 (2N2925 only)	dB
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350

## absolute maximum ratings: (25°C) (unless otherwise specified)

<b>Voltages</b>			
Collector to Emitter	$V_{CEO}$	25 V	
Emitter to Base	$V_{EBO}$	5 V	
Collector to Base	$V_{CBO}$	25 V	
<b>Current</b>			
Collector (Steady State) *	$I_C$	100 mA	
<b>Dissipation</b>			
Total Power (Free air at 25°C) **	$P_T$	360 mW	
Total Power (Free air at 55°C) **	$P_T$	250 mW	
<b>Temperature</b>			
Storage	$T_{stg}$	-55 to +150°C	
Operating	$T_j$	+125°C	

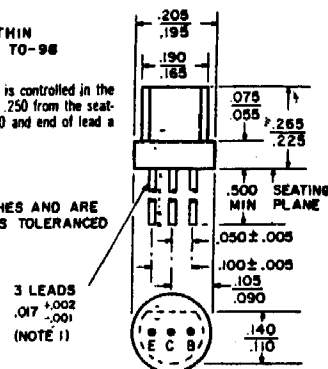
\*Determined from power limitations due to saturation voltage at this current.

\*\*Derate 3.6 mW/°C increase in ambient temperature above 25°C.

DIMENSIONS WITHIN  
JEDEC OUTLINE TO-98

NOTE 1: Lead diameter is controlled in the zone between .070 and .250 from the seating plane. Between .250 and end of lead a max. of .021 is held.

ALL DIMEN. IN INCHES AND ARE REFERENCE UNLESS TOLERANCED



3 LEADS  
.017 +.002  
-.001  
(NOTE 1)

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Datasheets for electronic components.