New Jersey Semi-Conductor Products, Inc.

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Silicon Transistors

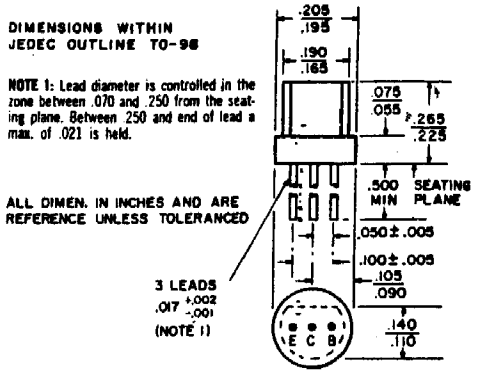
NPN 2N2923,4,5

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

		Min.	Typ.	Max.	
D-C CHARACTERISTICS					
Collector Cutoff Current ($V_{CB} = 25V$)	I_{CBO}			0.1	μA
($V_{CB} = 25V$, $T_A = 100°C$)	I_{CBO}			15	μA
Emitter Cutoff Current ($V_{EB} = 5V$)	I_{EBO}			0.1	μA
Forward Current Transfer Ratio ($V_{CB} = 4.5V$, $I_C = 2$ mA)	h_{FE}				
2N2923			115		
2N2924			155		
2N2925			215		
SMALL SIGNAL CHARACTERISTICS					
Forward Current Transfer Ratio ($V_{CB} = 10V$, $I_C = 2$ mA, $f = 1$kHz)	h_{fe}				
2N2923		90		180	
2N2924		150		300	
2N2925		235		470	
Input Impedance ($V_{CB} = 10V$, $I_C = 2$ mA, $f = 1$kHz)	h_{ib}		15		ohms
HIGH FREQUENCY CHARACTERISTICS					
Collector Capacitance ($V_{CB} = 10V$, $I_E = 0$, $f = 1$MHz)	C_{cbo}	4.5	7	10	pF
Gain Bandwidth Product ($I_C = 4$ mA, $V_{CB} = 5V$)	f_T		160		MHz
NOISE					
Noise Figure ($I_C = 100$ μA, $V_{CB} = 5V$, $f = 10$kHz, BW = 1 Hz, Rg = 2000Ω)	N. F.		2.8 (2N2925 only)		dB

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

Voltages		
Collector to Emitter	V_{CEO}	25 V
Emitter to Base	V_{EBO}	5 V
Collector to Base	V_{CBO}	25 V
Current		
Collector (Steady State)*	I_C	100 mA
Dissipation		
Total Power (Free air at 25°C)**	P_T	360 mW
Total Power (Free air at 55°C)**	P_T	250 mW
Temperature		
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.