

Silicon Transistors



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

D-C CHARACTERISTICS

Collector Cutoff Current ($V_{CB} = 25V$)
($V_{CB} = 25V, T_A = 100^\circ C$)

Emitter Cutoff Current ($V_{EB} = 5V$)

Forward Current Transfer Ratio
($V_{CB} = 4.5V, I_C = 2 mA$)
2N2923
2N2924
2N2925

I_{CBO}
 I_{CBO}
 I_{EBO}
 h_{FE}

| Min. | Typ. | Max. | |
|------|------|------|---------|
| | | 0.1 | μA |
| | | 15 | μA |
| | | 0.1 | μA |
| | 115 | | |
| | 155 | | |
| | 215 | | |

SMALL SIGNAL CHARACTERISTICS

Forward Current Transfer Ratio
($V_{CB} = 10V, I_C = 2 mA, f = 1kHz$)
2N2923
2N2924
2N2925

h_{fe}

| | |
|-----|-----|
| 90 | 180 |
| 150 | 300 |
| 235 | 470 |

Input Impedance ($V_{CB} = 10V, I_C = 2 mA, f = 1kHz$)

h_{ib}

15 ohms

HIGH FREQUENCY CHARACTERISTICS

Collector Capacitance ($V_{CB} = 10V, I_E = 0, f = 1MHz$)

Gain Bandwidth Product ($I_C = 4 mA, V_{CB} = 5V$)

C_{cbo}
 f_T

| | | | |
|-----|-----|----|-----|
| 4.5 | 7 | 10 | pF |
| | 160 | | MHz |

NOISE

Noise Figure ($I_C = 100 \mu A, V_{CB} = 5V, f = 10kHz,$
 $BW = 1 Hz, R_g = 2000\Omega$)

N. F.

2.8 (2N2925 only) dB

350

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

Voltages

Collector to Emitter V_{CE0} 25 V

Emitter to Base V_{EB0} 5 V

Collector to Base V_{CB0} 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_{str} -55 to +150°C

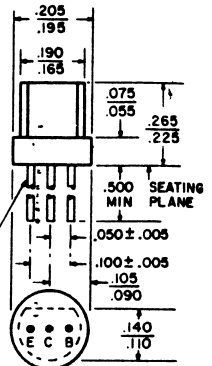
Operating T_j +125°C

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)



* Determined from power limitations due to saturation voltage at this current.
** Derate 3.6 mW/°C increase in ambient temperature above 25°C.