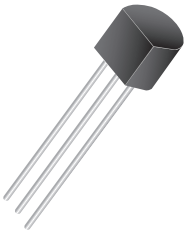
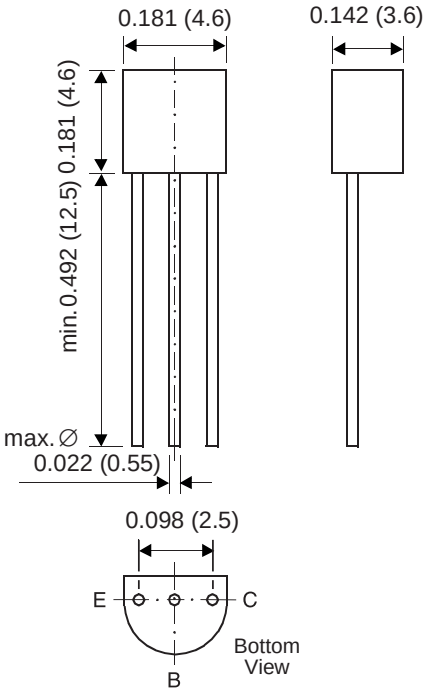
Small Signal Transistors (PNP)



TO-226AA (TO-92)



Dimensions in inches and (millimeters)

Features

- PNP Silicon Epitaxial Planar Transistors
- Complementary to GS9014
- Low frequency, low noise amplifier

Mechanical Data

Case: TO-92 Plastic Package

Weight: approx. 0.18g

Packaging Codes/Options:

E6/Bulk-5K per container, 20K per box
E7/4K per Ammo mag., 20K per box

Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	–50	V
Collector-Emitter Voltage	V_{CEO}	–45	V
Emitter-Base Voltage	V_{EBO}	–5	V
Collector Current	I_C	–100	mA
Power Dissipation at T_{amb} = 25°C	P_{tot}	450(1)	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	250(1)	°C/W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	–55 to +150	°C

Notes:
(1) Valid provided that leads are kept at ambient temperature at a distance of 2mm from case

Electrical Characteristics (T_J = 25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Current Gain Group A DC Current Gain B C	h_{FE}	V_{CE} = –5V, I_C = –1mA	60 100 200	— — —	150 300 600	—
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = –1mA, I_B = 0	–45	—	—	V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = –100µA, I_E = 0	–50	—	—	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E = –100µA, I_C = 0	–5	—	—	V
Collector Cut-off Current	I_{CBO}	V_{CB} = –50V, I_E = 0	—	—	–50	nA
Emitter Cut-off Current	I_{EBO}	V_{EB} = –5V, I_C = 0	—	—	–50	nA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = –100mA, I_B = –5mA	—	–0.2	–0.7	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = –100mA, I_B = –5mA	—	–0.82	–1.0	V
Base-Emitter ON Voltage	$V_{BE(on)}$	V_{CE} = –5V, I_C = –2mA	–0.6	–0.65	–0.75	V
Output Capacitance	C_{OB}	V_{CB} = –10V, I_E = 0, f = 1MHz	—	4.5	7.0	pF
Gain-Bandwidth Product	f_T	V_{CE} = –5V, I_C = –10mA	100	190	—	MHz
Noise Figure	NF	V_{CE} = –5V, I_C = –0.2mA, f = 1KHz, Rs = 1KΩ	—	0.7	10	dB