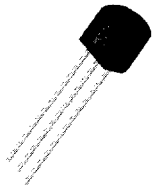
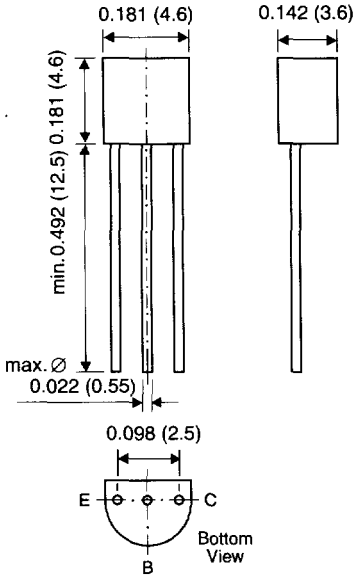
GENERAL SEMICONDUCTOR®

GS9012

Small Signal Transistors (PNP)



TO-226AA (TO-92)



Dimensions in inches and (millimeters)

New Product

Features

- PNP Silicon Epitaxial Planar Transistors for switching and amplifier applications. Especially suitable for AF-driver stages and low power output stages such as portable radios in class-B push-pull operation.
- Complementary to GS9013

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}	–40	V
Collector-Emitter Voltage	V_{CEO}	–20	V
Emitter-Base Voltage	V_{EBO}	–5	V
Collector Current	I_C	–500	mA
Power Dissipation at T_{amb} = 25°C	P_{tot}	625(1)	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	200(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

5/8/00

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

Parameter		Symbol	Test Condition	Min	Typ	Max	Unit
DC Current Gain	Current Gain Group D	h_{FE}	V_{CE} = −1V, I_C = −50mA	64	—	91	—
	E			78	—	112	
	F			96	—	135	
	G			112	—	166	
	H			144	—	202	
			V_{CE} = −1V, I_C = −500mA	40	90	—	
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	I_C = −1mA, I_B = 0	−20	—	—	V
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	I_C = −100μA, I_E = 0	−40	—	—	V
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	I_E = −100μA, I_C = 0	−5	—	—	V
Collector Cut-off Current		I_{CBO}	V_{CB} = −25V, I_E = 0	—	—	−100	nA
Emitter Cut-off Current		I_{EBO}	V_{EB} = −3V, I_C = 0	—	—	−100	nA
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	I_C = −500mA, I_B = −50mA	—	−0.18	−0.6	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	I_C = −500mA, I_B = −50mA	—	−0.95	−1.2	V
Base-Emitter ON Voltage		$V_{BE(on)}$	V_{CE} = −1V, I_C = −10mA	−0.6	−0.67	−0.7	V