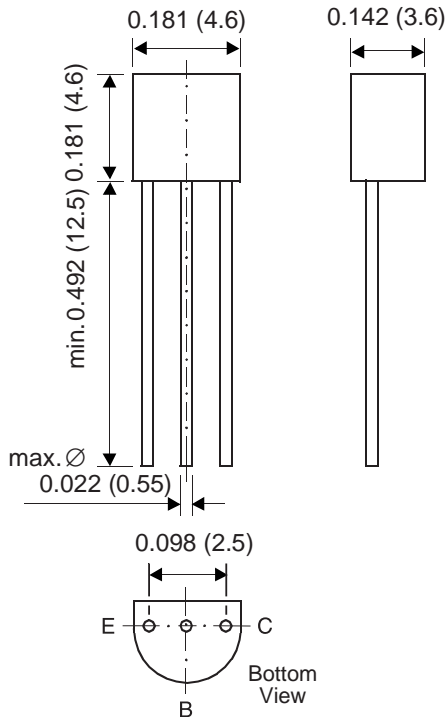


## Small Signal Transistors (PNP)

**TO-226AA (TO-92)**


*Dimensions in inches and (millimeters)*

### 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 $T_{amb} = 25^\circ\text{C}$	$P_{tot}$	625 <sup>(1)</sup>	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	200 <sup>(1)</sup>	$^\circ\text{C}/\text{W}$
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_s$	-55 to +150	$^\circ\text{C}$

**Notes:**

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

**Electrical Characteristics** (T<sub>J</sub> = 25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
DC Current Gain	D E F G H hFE	V <sub>CE</sub> = -1V, I <sub>C</sub> = -50mA	64	—	91	—
			78	—	112	
			96	—	135	
			112	—	166	
			144	—	202	
		V <sub>CE</sub> = -1V, I <sub>C</sub> = -500mA	40	90	—	
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = -1mA, I <sub>B</sub> = 0	-20	—	—	V
Collector-Base Breakdown Voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = -100μA, I <sub>E</sub> = 0	-40	—	—	V
Emitter-Base Breakdown Voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = -100μA, I <sub>C</sub> = 0	-5	—	—	V
Collector Cut-off Current	I <sub>CBO</sub>	V <sub>CB</sub> = -25V, I <sub>E</sub> = 0	—	—	-100	nA
Emitter Cut-off Current	I <sub>EBO</sub>	V <sub>EB</sub> = -3V, I <sub>C</sub> = 0	—	—	-100	nA
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -500mA, I <sub>B</sub> = -50mA	—	-0.18	-0.6	V
Base-Emitter Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = -500mA, I <sub>B</sub> = -50mA	—	-0.95	-1.2	V
Base-Emitter ON Voltage	V <sub>BE(on)</sub>	V <sub>CE</sub> = -1V, I <sub>C</sub> = -10mA	-0.6	-0.67	-0.7	V