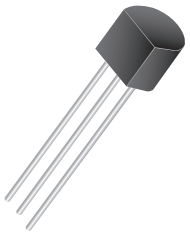
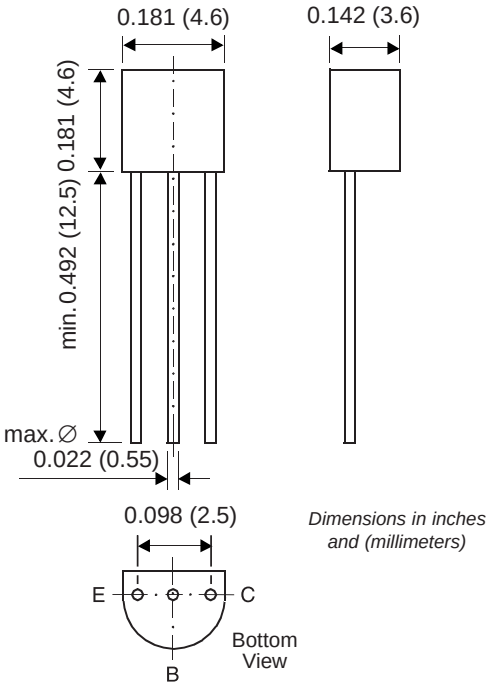
New Product

Vishay Semiconductors
formerly General Semiconductor

Small Signal Transistor (PNP)



TO-226AA (TO-92)



Dimensions in inches and (millimeters)

Features

- PNP Silicon Epitaxial Planar Transistor for switching and amplifier applications.
- As complementary type, the NPN transistor MPSA06 is recommended.
- On special request, this transistor is also manufactured in the pin configuration TO-18.
- This transistor is also available in the SOT-23 case with the type designation MMBTA56.

Mechanical Data

Case: TO-92 Plastic Package

Weight: approx. 0.18g

Packaging Codes/Options:

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

Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter		Symbol	Value	Unit
Collector-Base Voltage		$-V_{CBO}$	80	V
Collector-Emitter Voltage		$-V_{CEO}$	80	V
Emitter-Base Voltage		$-V_{EBO}$	4.0	V
Collector Current		$-I_C$	500	mA
Power Dissipation	T_A = 25°C T_C = 25°C	P_{tot}	625 1.5	mW W
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

Note:
(1) Valid provided that leads are kept at ambient temperature.

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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
DC Current Gain	h_{FE}	$-V_{CE}$ = 1 V, $-I_C$ = 10 mA $-V_{CE}$ = 1 V, $-I_C$ = 100 mA	100 100	— —	— —	—
Collector-Emitter Breakdown Voltage	$-V_{(BR)CEO}$	$-I_C$ = 1 mA, I_B = 0 mA	80	—	—	V
Emitter-Base Breakdown Voltage	$-V_{(BR)EBO}$	$-I_E$ = 100 µA, I_C = 0	4.0	—	—	V
Collector Saturation Voltage	$-V_{CEsat}$	$-I_C$ = 100 mA, $-I_B$ = 10 mA	—	—	0.25	V
Base-Emitter ON Voltage	$-V_{BE(on)}$	$-I_C$ = 10 mA, $-I_B$ = 1 mA	—	—	1.2	V
Collector-Emitter Cut-off Current	$-I_{CES}$	$-V_{CE}$ = 60 V, $-I_B$ = 0	—	—	100	nA
Collector-Base Cut-off Current	$-I_{CBO}$	$-V_{CB}$ = 80 V, I_E = 0	—	—	100	nA
Gain-Bandwidth Product	f_T	$-V_{CE}$ = 1 V, $-I_C$ = 100 mA f = 100 MHz	50	—	—	MHz