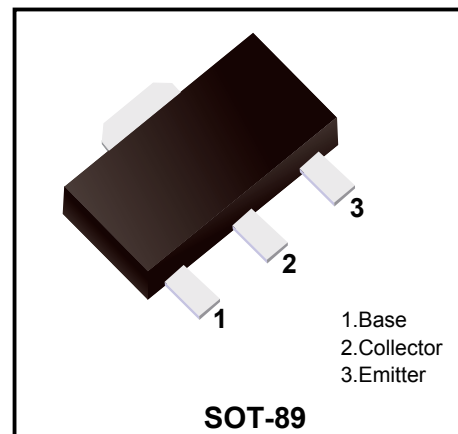


Plastic-Encapsulate Transistors

TRANSISTOR (PNP)

Features

- ◆ Low Collector-Emitter Saturation Voltage
- ◆ High Breakdown Voltage



Product Specification Classification

Part Number	Package	Marking	Pack
MPSA92U	SOT-89	A92	1000PCS/Tape

Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	300	V
Collector Emitter Voltage	$-V_{CEO}$	300	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	500	mA
Power Dissipation	P_{tot}	500	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

Characteristics at Ta = 25°C

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain				
at $-I_C = 1\text{ mA}$, $-V_{CE} = 10\text{ V}$	h_{FE}	25	-	-
at $-I_C = 10\text{ mA}$, $-V_{CE} = 10\text{ V}$	h_{FE}	40	-	-
at $-I_C = 30\text{ mA}$, $-V_{CE} = 10\text{ V}$	h_{FE}	25	-	-
Collector Base Cutoff Current				
at $-V_{CB} = 200\text{ V}$	$-I_{CBO}$	-	0.25	μA
Emitter Base Cutoff Current				
at $-V_{EB} = 3\text{ V}$	$-I_{EBO}$	-	0.1	μA
Collector Base Breakdown Voltage				
at $-I_C = 100\text{ }\mu\text{A}$	$-V_{(BR)CBO}$	300	-	V
Collector Emitter Breakdown Voltage				
at $-I_C = 1\text{ mA}$	$-V_{(BR)CEO}$	300	-	V
Emitter Base Breakdown Voltage				
at $-I_E = 100\text{ }\mu\text{A}$	$-V_{(BR)EBO}$	5	-	V
Collector Emitter Saturation Voltage				
at $-I_C = 20\text{ mA}$, $-I_B = 2\text{ mA}$	$-V_{CE(sat)}$	-	0.5	V
Base Emitter Saturation Voltage				
at $-I_C = 20\text{ mA}$, $-I_B = 2\text{ mA}$	$-V_{BE(sat)}$	-	0.9	V
Gain Bandwidth Product				
at $-I_C = 10\text{ mA}$, $-V_{CE} = 20\text{ V}$, $f = 100\text{ MHz}$	f_T	50	-	MHz
Collector Output Capacitance				
at $-V_{CB} = 20\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	6	pF

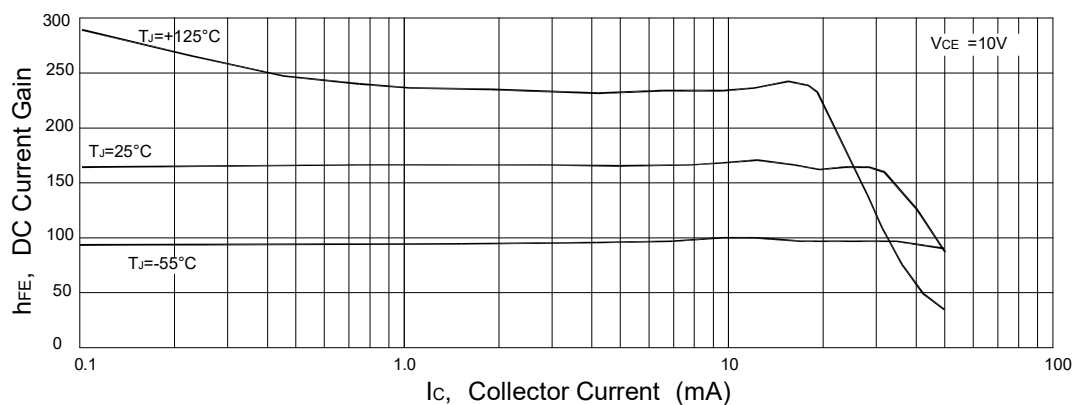


Figure 1. DC Current Gain

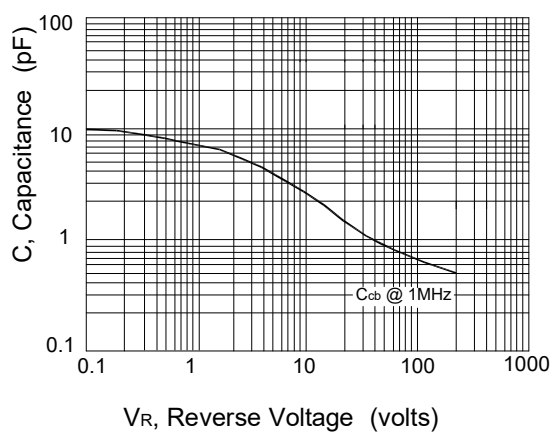


Figure 2. Capacitance

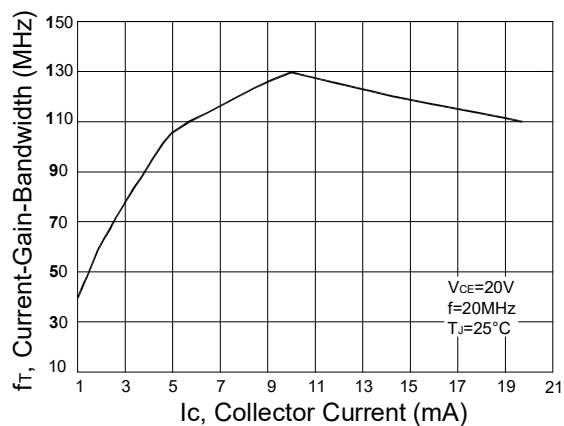
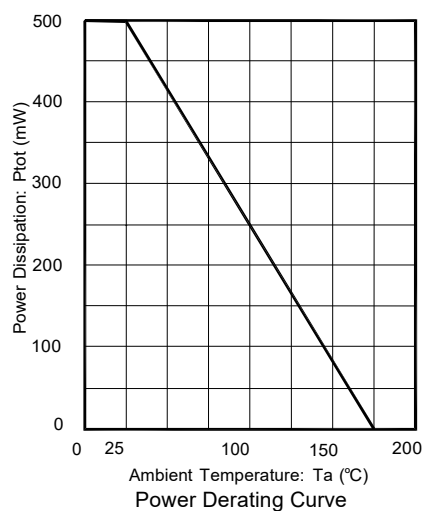


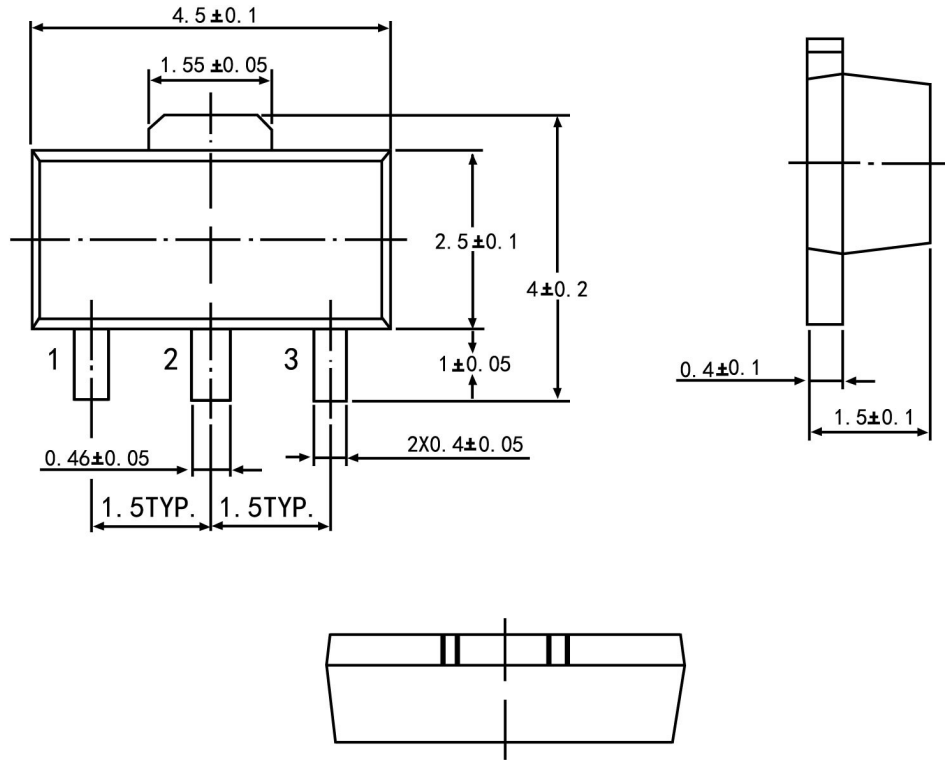
Figure 3. Current-Gain-Bandwidth



Power Derating Curve

Package Outline

SOT-89



Symbol	Dimension in Millimeters	
	Min	Max
A	1.40	1.60
B	0.44	0.62
B1	0.35	0.54
C	0.35	0.44
D	4.40	4.60
D1	1.62	1.83
E	2.29	2.60
e	1.50 Typ	
H	3.94	4.25
H1	2.63	2.93
L	0.89	1.20
All Dimensions In mm		