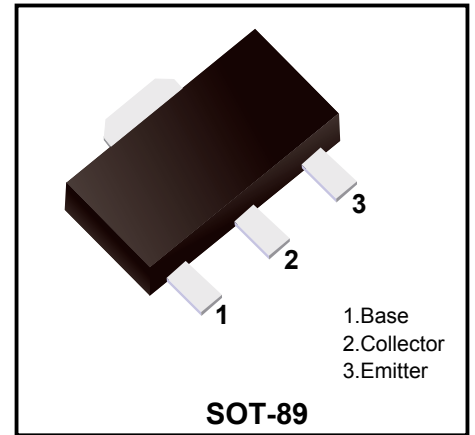


Plastic-Encapsulate Transistors

TRANSISTOR (PNP)

Features

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



Marking Code	
MMBTA92SI	A92

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

Typical Characteristics

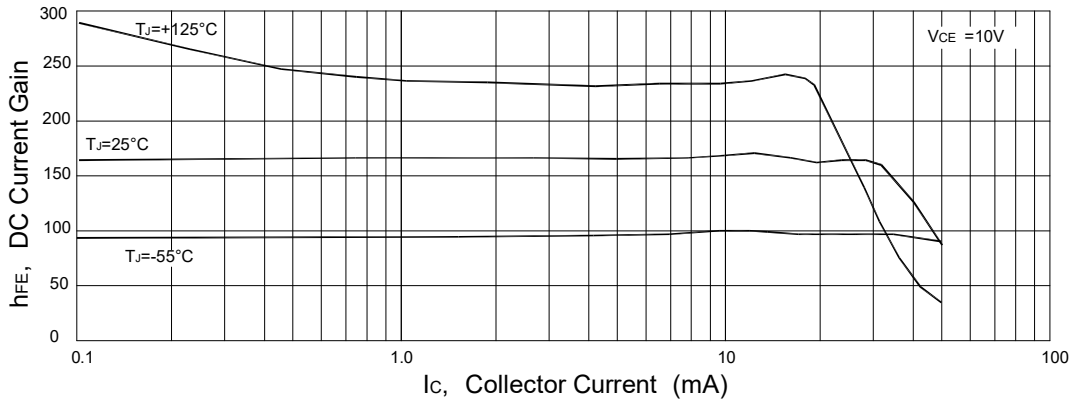


Figure 1. DC Current Gain

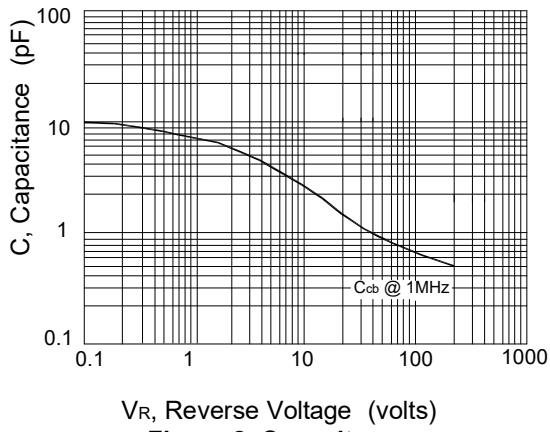


Figure 2. Capacitance

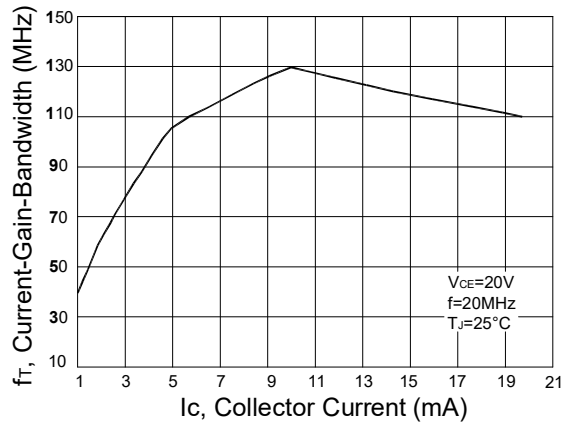
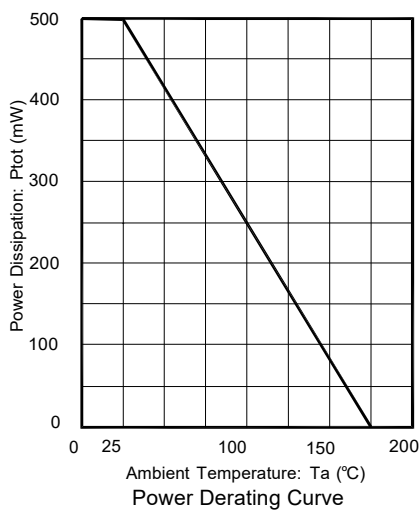


Figure 3. Current-Gain-Bandwidth



Power Derating Curve

Ordering information

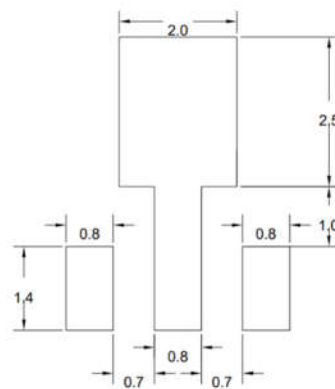
Package	Packing Description	Base Quantity	Packing Quantity
SOT-89	Tape/Reel, 7" reel	1000pcs/Reel	6000PCS/Box 30000PCS/Carton

Package Dimensions

SOT-89

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	1.40	1.60	0.055	0.063
b	0.32	0.52	0.013	0.020
b1	0.38	0.58	0.015	0.023
c	0.35	0.45	0.014	0.018
D	4.40	4.60	0.173	0.181
D1	1.45	1.65	0.057	0.065
D2	1.70	1.80	0.067	0.071
E	2.30	2.60	0.091	0.102
E1	3.95	4.25	0.156	0.167
E2	1.80	2.00	0.071	0.079
e	1.40	1.60	0.055	0.063
e1	2.80	3.20	0.110	0.126
L	0.90	1.20	0.035	0.047

The recommended mounting pad size



UNIT:MM

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