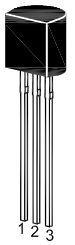
MPSA94

PNP Silicon Epitaxial Planar Transistor

for high voltage switching and amplifier applications.



1. Emitter 2. Base 3. Collector
TO-92 Plastic Package

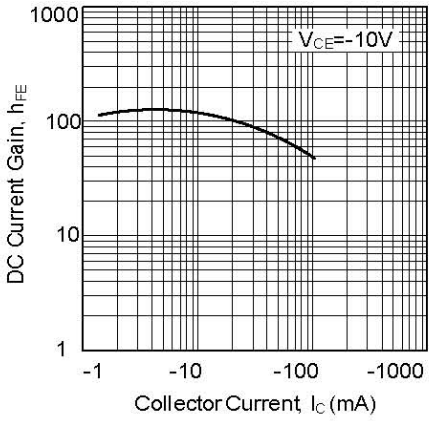
Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	400	V
Collector Emitter Voltage	$-V_{CEO}$	400	V
Emitter Base Voltage	$-V_{EBO}$	6	V
Collector Current	$-I_C$	300	mA
Power Dissipation	P_{tot}	625	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

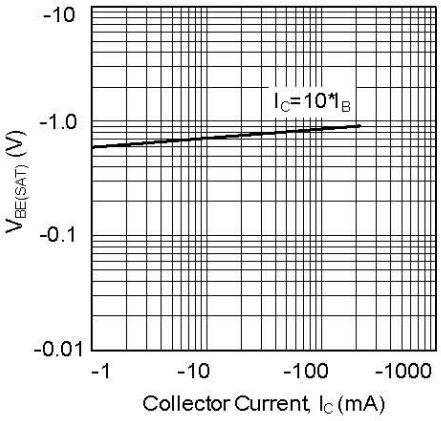
Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $-V_{CE}$ = 10 V, $-I_C$ = 1 mA at $-V_{CE}$ = 10 V, $-I_C$ = 10 mA at $-V_{CE}$ = 10 V, $-I_C$ = 30 mA	 h_{FE} h_{FE} h_{FE}	 100 40 25	 - - -	 - - -
Collector Base Cutoff Current at $-V_{CB}$ = 300 V	$-I_{CBO}$	-	0.1	µA
Collector Emitter Cutoff Current at $-V_{CE}$ = 400 V	$-I_{CES}$	-	1	µA
Emitter Base Cutoff Current at $-V_{EB}$ = 4 V	$-I_{EBO}$	-	0.1	µA
Collector Base Breakdown Voltage at $-I_C$ = 100 µA	$-V_{(BR)CBO}$	400	-	V
Collector Emitter Breakdown Voltage at $-I_C$ = 100 µA	$-V_{(BR)CES}$	400	-	V
Collector Emitter Breakdown Voltage at $-I_C$ = 1 mA	$-V_{(BR)CEO}$	400	-	V
Emitter Base Breakdown Voltage at $-I_E$ = 10 µA	$-V_{(BR)EBO}$	6	-	V
Collector Emitter Saturation Voltage at $-I_C$ = 10 mA, $-I_B$ = 1 mA at $-I_C$ = 50 mA, $-I_B$ = 5 mA	 $-V_{CE(sat)}$ $-V_{CE(sat)}$	 - -	 0.5 0.75	 V V
Base Enitter Saturation Voltage at $-I_C$ = 10 mA, $-I_B$ = 1 mA	$-V_{BE(sat)}$	-	0.75	V
Collector Output Capacitance at $-V_{CB}$ = 20 V, f = 1 MHz	C_{ob}	-	7	pF

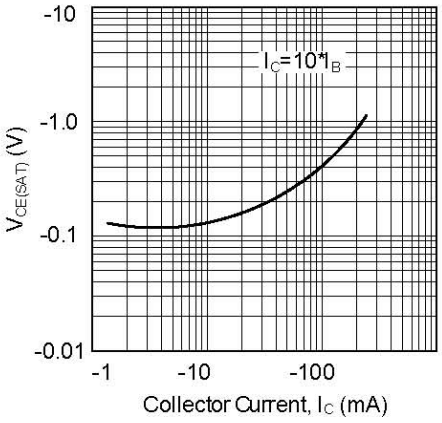
DC Current Gain



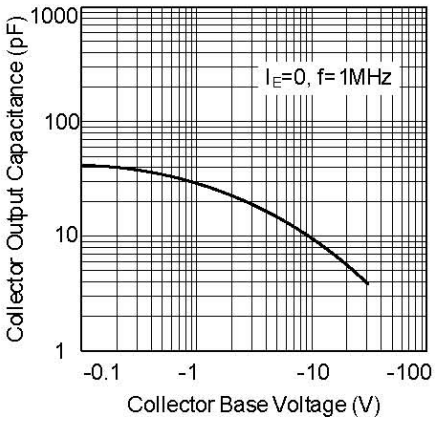
Base-Emitter Saturation Voltage



Collector-Emitter Saturation Voltage



Collector Output Capacitance



Power Dissipation vs Ambient Temperature