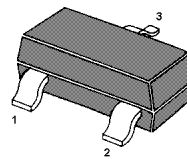


MMBTA94

PNP Silicon Epitaxial Planar Transistor

for high voltage switching and amplifier applications.

The transistor is subdivided into one group according to its DC current gain.



1. Base 2. Emitter 3. Collector
SOT-23 Plastic Package

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

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}	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

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

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