

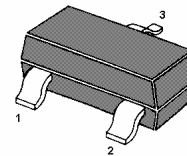
MMBTA44

NPN Silicon Epitaxial Planar Transistor

for high voltage switching and amplifier applications.

The transistor is subdivided into one group according to its DC current gain. As complementary type the PNP transistor MMBTA94 is recommended.

On special request, these transistors can be manufactured in different pin configurations.

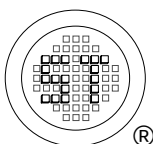


1. Base 2. Emitter 3. Collector

SOT-23 Plastic Package

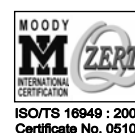
Absolute Maximum Ratings ($T_a = 25^{\circ}\text{C}$)

	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	500	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_{S}	-55 to +150	$^{\circ}\text{C}$



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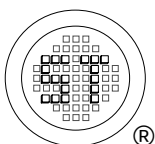


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MMBT A44

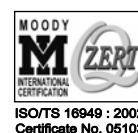
Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

	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}	40	-	-
Emitter Cutoff Current				
at $V_{EB}=4\text{V}$	I_{EBO}	-	0.1	μA
Collector Cutoff Current				
at $V_{CB}=400\text{V}$	I_{CBO}	-	0.1	μA
Collector Cutoff Current				
at $V_{CE}=400\text{V}$	I_{CEO}	-	0.5	μA
Collector Base Breakdown Voltage				
at $I_C=100\mu\text{A}$	$V_{(BR)CBO}$	500	-	V
Collector Emitter Breakdown Voltage				
at $I_C=1\text{mA}$	$V_{(BR)CEO}$	400	-	V
Emitter Base Breakdown Voltage				
at $I_E=100\mu\text{A}$	$V_{(BR)EBO}$	6	-	V
Collector Saturation Voltage				
at $I_C=1\text{mA}$, $I_B=0.1\text{mA}$	$V_{CE(sat)}$	-	0.4	V
at $I_C=10\text{mA}$, $I_B=1\text{mA}$	$V_{CE(sat)}$	-	0.5	V
at $I_C=50\text{mA}$, $I_B=5\text{mA}$	$V_{CE(sat)}$	-	0.75	V
Base 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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