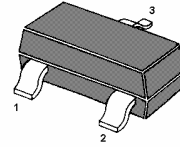


MMBTSA1036

PNP Silicon Epitaxial Planar Transistor

For switching and general purpose applications.

The transistor is subdivided into three groups P, Q and R, according to its DC current gain.

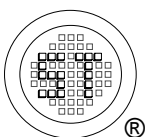


1. Base 2. Emitter 3. Collector

SOT-23 Plastic Package

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

	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	40	V
Collector Emitter Voltage	$-V_{CEO}$	32	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	500	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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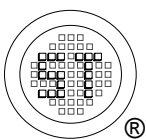
ISO/TS 16949 : 2002 Certificate No. 05103
ISO 14001:2004 Certificate No. 7116
ISO 9001:2000 Certificate No. 0508098

Dated : 20/10/2005

MMBTSA1036

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

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{CE}=3\text{V}$, $-I_C=100\text{mA}$ Current Gain Group	P				
	Q				
	R				
		h_{FE}	82	-	180
	h_{FE}	120	-	270	-
	h_{FE}	180	-	390	-
Collector-base breakdown voltage at $-I_C=100\mu\text{A}$	$-V_{(BR)CBO}$	40	-	-	V
Collector-emitter breakdown voltage at $-I_C=1\text{mA}$	$-V_{(BR)CEO}$	32	-	-	V
Emitter-base breakdown voltage at $-I_C=100\mu\text{A}$	$-V_{(BR)EBO}$	5	-	-	V
Collector Cutoff Current at $-V_{CB}=20\text{V}$	$-I_{CBO}$	-	-	1	μA
Emitter Cutoff Current at $-V_{EB}=4\text{V}$	$-I_{EBO}$	-	-	1	μA
Collector Saturation Voltage at $-I_C=300\text{mA}$, $-I_B=30\text{mA}$	$-V_{CE(sat)}$	-	-	0.6	V
Transition Frequency at $-V_{CE}=5\text{V}$, $-I_E=20\text{mA}$, $f=100\text{MHz}$	f_T	-	200	-	MHz
Collector Output Capacitance at $-V_{CB}=10\text{V}$, $f=1\text{MHz}$	Cob	-	7	-	pF



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