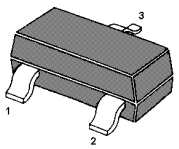
MMBT9012 TRANSISTOR

PNP Silicon Epitaxial Planar Transistors

for switching and amplifier applications.



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

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	40	V
Collector Emitter Voltage	$-V_{CEO}$	30	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	°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 $-V_{CE}$ = 1 V, $-I_C$ = 50 mA	Current Gain Group G	h_{FE}	100	250	-
	H	h_{FE}	160	400	-
at $-V_{CE}$ = 1 V, $-I_C$ = 500 mA		h_{FE}	40	-	-
Collector Base Cutoff Current at $-V_{CB}$ = 35 V		$-I_{CBO}$	-	100	nA
Emitter Base Cutoff Current at $-V_{EB}$ = 5 V		$-I_{EBO}$	-	100	nA
Collector Base Breakdown Voltage at $-I_C$ = 100 µA		$-V_{(BR)CBO}$	40	-	V
Collector Emitter Breakdown Voltage at $-I_C$ = 1 mA		$-V_{(BR)CEO}$	30	-	V
Emitter Base Breakdown Voltage at $-I_E$ = 100 µA		$-V_{(BR)EBO}$	5	-	V
Collector Emitter Saturation Voltage at $-I_C$ = 500 mA, $-I_B$ = 50 mA		$-V_{CE(sat)}$	-	0.6	V
Base Emitter Saturation Voltage at $-I_C$ = 500 mA, $-I_B$ = 50 mA		$-V_{BE(sat)}$	-	1.2	V
Base Emitter Voltage at $-V_{CE}$ = 1 V, $-I_C$ = 100 mA		$-V_{BE}$	-	1	V
Gain Bandwidth Product at $-V_{CE}$ = 6 V, $-I_C$ = 20 mA		f_T	100	-	MHz

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