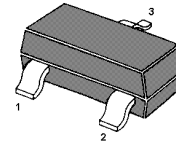


MMBT9012H-H23

PNP Silicon Epitaxial Planar Transistors

for switching and amplifier applications.



1. Base 2. Emitter 3. Collector
TO-236 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{\text{CBO}}$	40	V
Collector Emitter Voltage	$-V_{\text{CEO}}$	30	V
Emitter Base Voltage	$-V_{\text{EBO}}$	5	V
Collector Current	$-I_{\text{C}}$	500	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 $-V_{\text{CE}} = 1 \text{ V}$, $-I_{\text{C}} = 50 \text{ mA}$	h_{FE}	200	300	-
Collector Base Cutoff Current at $-V_{\text{CB}} = 35 \text{ V}$	$-I_{\text{CBO}}$	-	100	nA
Emitter Base Cutoff Current at $-V_{\text{EB}} = 5 \text{ V}$	$-I_{\text{EBO}}$	-	100	nA
Collector Base Breakdown Voltage at $-I_{\text{C}} = 100 \mu\text{A}$	$-V_{(\text{BR})\text{CBO}}$	40	-	V
Collector Emitter Breakdown Voltage at $-I_{\text{C}} = 1 \text{ mA}$	$-V_{(\text{BR})\text{CEO}}$	30	-	V
Emitter Base Breakdown Voltage at $-I_{\text{E}} = 100 \mu\text{A}$	$-V_{(\text{BR})\text{EBO}}$	5	-	V
Collector Emitter Saturation Voltage at $-I_{\text{C}} = 500 \text{ mA}$, $-I_{\text{B}} = 50 \text{ mA}$	$-V_{\text{CE}(\text{sat})}$	-	0.6	V
Base Emitter Saturation Voltage at $-I_{\text{C}} = 500 \text{ mA}$, $-I_{\text{B}} = 50 \text{ mA}$	$-V_{\text{BE}(\text{sat})}$	-	1.2	V
Base Emitter Voltage at $-V_{\text{CE}} = 1 \text{ V}$, $-I_{\text{C}} = 100 \text{ mA}$	$-V_{\text{BE}}$	-	1	V
Gain Bandwidth Product at $-V_{\text{CE}} = 6 \text{ V}$, $-I_{\text{C}} = 20 \text{ mA}$	f_{T}	100	-	MHz

