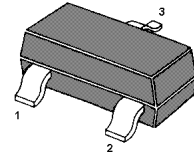


MMBT591A

PNP Silicon Epitaxial Planar Transistor



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	$-V_{CBO}$	40	V
Collector Emitter Voltage	$-V_{CEO}$	40	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	1	A
Peak Pulse Current	$-I_{CM}$	2	A
Power Dissipation	P_{tot}	350	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $-V_{CE} = 5\text{ V}$, $-I_C = 1\text{ mA}$ at $-V_{CE} = 5\text{ V}$, $-I_C = 100\text{ mA}$ at $-V_{CE} = 5\text{ V}$, $-I_C = 500\text{ mA}$ at $-V_{CE} = 5\text{ V}$, $-I_C = 1\text{ A}$	h_{FE} h_{FE} h_{FE} h_{FE}	300 300 250 160	- 800 - -	- - - -
Collector Base Cutoff Current at $-V_{CB} = 30\text{ V}$	$-I_{CBO}$	-	100	nA
Collector Emitter Cutoff Current at $-V_{CE} = 30\text{ V}$	$-I_{CES}$	-	100	nA
Emitter Base Cutoff Current at $-V_{EB} = 5\text{ V}$	$-I_{EBO}$	-	100	nA
Collector Emitter Saturation Voltage at $-I_C = 100\text{ mA}$, $-I_B = 1\text{ mA}$ at $-I_C = 500\text{ mA}$, $-I_B = 20\text{ mA}$ at $-I_C = 1\text{ A}$, $-I_B = 100\text{ mA}$	$-V_{CE(sat)}$	- - -	0.2 0.35 0.5	V
Base Emitter Saturation Voltage at $-I_C = 1\text{ A}$, $-I_B = 50\text{ mA}$	$-V_{BE(sat)}$	-	1.1	V
Base Emitter Voltage at $-I_C = 1\text{ A}$, $-V_{CE} = 5\text{ V}$	$-V_{BE}$	-	1	V
Gain Bandwidth Product at $-V_{CE} = 10\text{ V}$, $-I_C = 50\text{ mA}$, $f = 100\text{ MHz}$	f_T	150	-	MHz
Collector Capacitance at $-V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_c	-	12	pF

