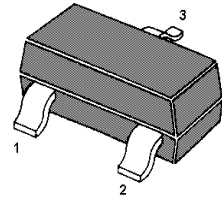


MMBT6517

NPN Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

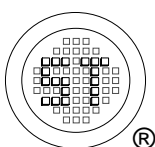
On special request, these transistors can be manufactured in different pin configurations.



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

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	350	V
Collector Emitter Voltage	V_{CEO}	350	V
Emitter Base Voltage	V_{EBO}	6	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_{stg}	- 55 to + 150	$^\circ\text{C}$



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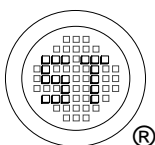


Dated: 05/09/2012 Rev: 01

MMBT6517

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

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $V_{CE} = 10\text{ V}$, $I_C = 1\text{ mA}$	h_{FE}	20	-	-
at $V_{CE} = 10\text{ V}$, $I_C = 10\text{ mA}$	h_{FE}	30	-	-
at $V_{CE} = 10\text{ V}$, $I_C = 30\text{ mA}$	h_{FE}	30	200	-
at $V_{CE} = 10\text{ V}$, $I_C = 50\text{ mA}$	h_{FE}	20	200	-
at $V_{CE} = 10\text{ V}$, $I_C = 100\text{ mA}$	h_{FE}	15	-	-
Collector Base Cutoff Current at $V_{CB} = 250\text{ V}$	I_{CBO}	-	50	nA
Emitter Base Cutoff Current at $V_{EB} = 5\text{ V}$	I_{EBO}	-	50	nA
Collector Base Breakdown Voltage at $I_C = 100\text{ }\mu\text{A}$	$V_{(BR)CBO}$	350	-	V
Collector Emitter Breakdown Voltage at $I_C = 1\text{ mA}$	$V_{(BR)CEO}$	350	-	V
Emitter Base Breakdown Voltage at $I_E = 10\text{ }\mu\text{A}$	$V_{(BR)EBO}$	6	-	V
Collector Emitter Saturation Voltage at $I_C = 10\text{ mA}$, $I_B = 1\text{ mA}$	$V_{CE(sat)}$	-	0.3	V
at $I_C = 20\text{ mA}$, $I_B = 2\text{ mA}$	$V_{CE(sat)}$	-	0.35	V
at $I_C = 30\text{ mA}$, $I_B = 3\text{ mA}$	$V_{CE(sat)}$	-	0.5	V
at $I_C = 50\text{ mA}$, $I_B = 5\text{ mA}$	$V_{CE(sat)}$	-	1	V
Base Emitter Saturation Voltage at $I_C = 10\text{ mA}$, $I_B = 1\text{ mA}$	$V_{BE(sat)}$	-	0.75	V
at $I_C = 20\text{ mA}$, $I_B = 2\text{ mA}$	$V_{BE(sat)}$	-	0.85	V
at $I_C = 30\text{ mA}$, $I_B = 3\text{ mA}$	$V_{BE(sat)}$	-	0.9	V
Base Emitter On Voltage at $V_{CE} = 10\text{ V}$, $I_C = 100\text{ mA}$	$V_{BE(on)}$	-	2	V
Gain Bandwidth Product at $V_{CE} = 20\text{ V}$, $I_C = 10\text{ mA}$, $f = 20\text{ MHz}$	f_T	40	200	MHz
Collector Output Capacitance at $V_{CB} = 20\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	6	pF



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