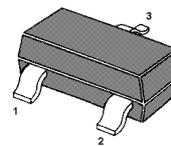


MMBT491

NPN Silicon Epitaxial Planar Transistor



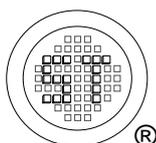
1.BASE 2.EMITTER 3.COLLECTOR
TO-236 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	80	V
Collector Emitter Voltage	V_{CEO}	60	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}	500	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $V_{CE} = 5\text{ V}$, $I_C = 1\text{ mA}$	h_{FE}	100	-	-
at $V_{CE} = 5\text{ V}$, $I_C = 500\text{ mA}$	h_{FE}	100	300	-
at $V_{CE} = 5\text{ V}$, $I_C = 1\text{ A}$	h_{FE}	80	-	-
at $V_{CE} = 5\text{ V}$, $I_C = 2\text{ A}$	h_{FE}	30	-	-
Collector Base Cutoff Current at $V_{CB} = 60\text{ V}$	I_{CBO}	-	100	nA
Collector Emitter Cutoff Current at $V_{CE} = 60\text{ V}$	I_{CES}	-	100	nA
Emitter Base Cutoff Current at $V_{EB} = 4\text{ V}$	I_{EBO}	-	100	nA
Collector Emitter Saturation Voltage at $I_C = 500\text{ mA}$, $I_B = 50\text{ mA}$	V_{CEsat}	-	0.25	V
at $I_C = 1\text{ A}$, $I_B = 100\text{ mA}$	V_{CEsat}	-	0.5	V
Base Emitter Saturation Voltage at $I_C = 1\text{ A}$, $I_B = 100\text{ mA}$	V_{BEsat}	-	1.1	V
Base Emitter Voltage at $V_{CE} = 5\text{ V}$, $I_C = 1\text{ A}$	$V_{BE(on)}$	-	1	V
Transition Frequency at $V_{CE} = 10\text{ V}$, $I_C = 50\text{ mA}$, $f = 100\text{ MHz}$	f_T	150	-	MHz
Collector Output Capacitance at $V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	10	pF



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ISO/TS 16949 : 2008
Certificate No. 160713009



ISO14001 : 2004
Certificate No. 7116



ISO 9001 : 2008
Certificate No. 60719410

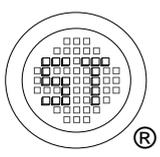
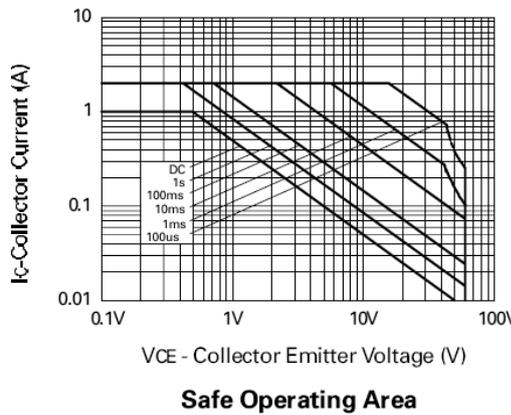
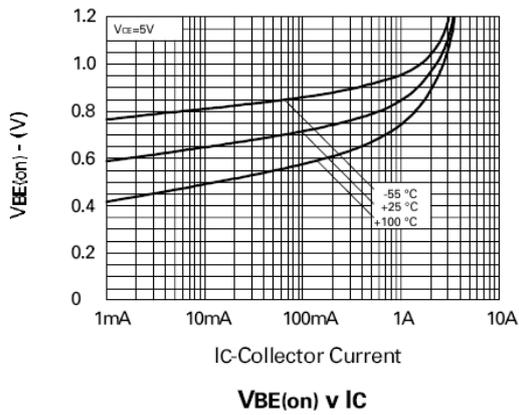
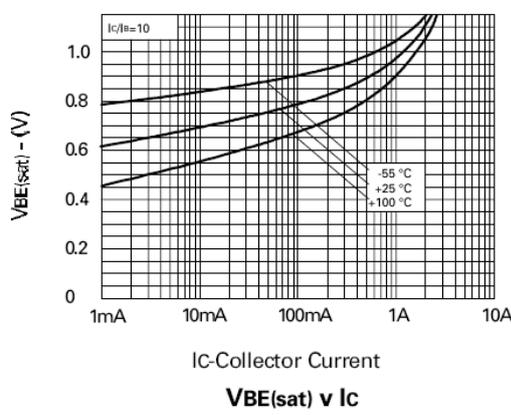
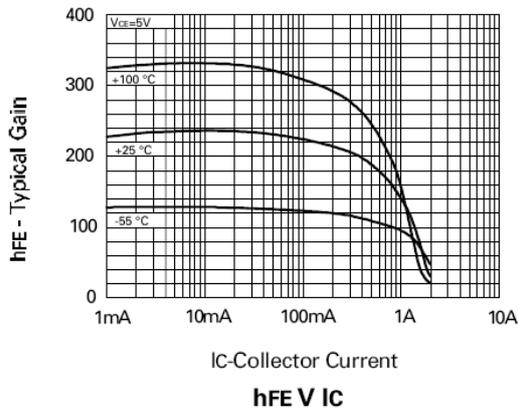
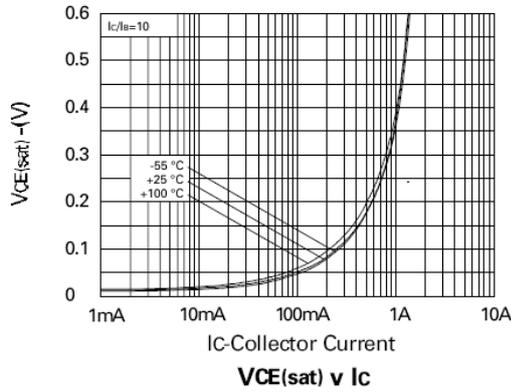
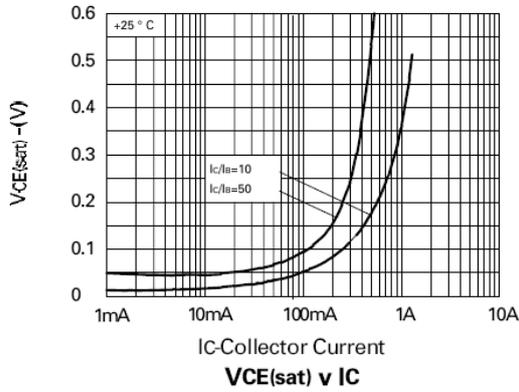


BS-OHSAS 18001 : 2007
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Dated : 16/03/2015 Rev:01