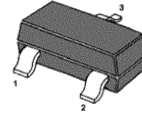


**FUKUCOM COMPANY LTD.****福 靈 有 限 公 司**FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,  
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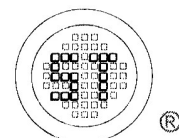
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**MMBT491A****NPN Silicon Epitaxial Planar Transistor**1. Base 2. Emitter 3. Collector  
SOT-23 Plastic Package**Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )**

Parameter	Symbol	Value	Unit
Collector Base Voltage	$V_{CB0}$	40	V
Collector Emitter Voltage	$V_{CE0}$	40	V
Emitter Base Voltage	$V_{EB0}$	5	V
Collector Current	$I_C$	1	A
Peak Pulse Current	$I_{CM}$	2	A
Power Dissipation	$P_{tot}$	200	mW
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature Range	$T_S$	- 65 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $V_{CE} = 5\text{ V}$ , $I_C = 1\text{ mA}$ at $V_{CE} = 5\text{ V}$ , $I_C = 500\text{ mA}$ at $V_{CE} = 5\text{ V}$ , $I_C = 1\text{ A}$	$h_{FE}$ $h_{FE}$ $h_{FE}$	300 300 200	- 900 -	- - -
Collector Cutoff Current at $V_{CB} = 30\text{ V}$	$I_{CB0}$	-	0.1	$\mu\text{A}$
Collector Cutoff Current at $V_{CE} = 30\text{ V}$	$I_{CE0}$	-	0.1	$\mu\text{A}$
Emitter Cutoff Current at $V_{EB} = 5\text{ V}$	$I_{EB0}$	-	0.1	$\mu\text{A}$
Collector Emitter Saturation Voltage at $I_C = 100\text{ mA}$ , $I_B = 1\text{ mA}$ at $I_C = 500\text{ mA}$ , $I_B = 50\text{ mA}$ at $I_C = 1\text{ A}$ , $I_B = 100\text{ mA}$	$V_{CEsat}$	- - -	0.2 0.3 0.5	V
Base Emitter Saturation Voltage at $I_C = 1\text{ A}$ , $I_B = 100\text{ mA}$	$V_{BEsat}$	-	1.2	V
Base Emitter Voltage at $I_C = 1\text{ A}$ , $V_{CE} = 5\text{ V}$	$V_{BE}$	-	1.1	V
Collector Capacitance at $V_{CB} = 10\text{ V}$ , $f = 1\text{ MHz}$	$C_C$	-	10	pF
Gain Bandwidth Product at $V_{CE} = 10\text{ V}$ , $I_C = 50\text{ mA}$ , $f = 100\text{ MHz}$	$f_T$	150	-	MHz

**SEMTECH**

Dated : 21/09/2006



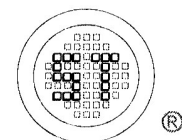
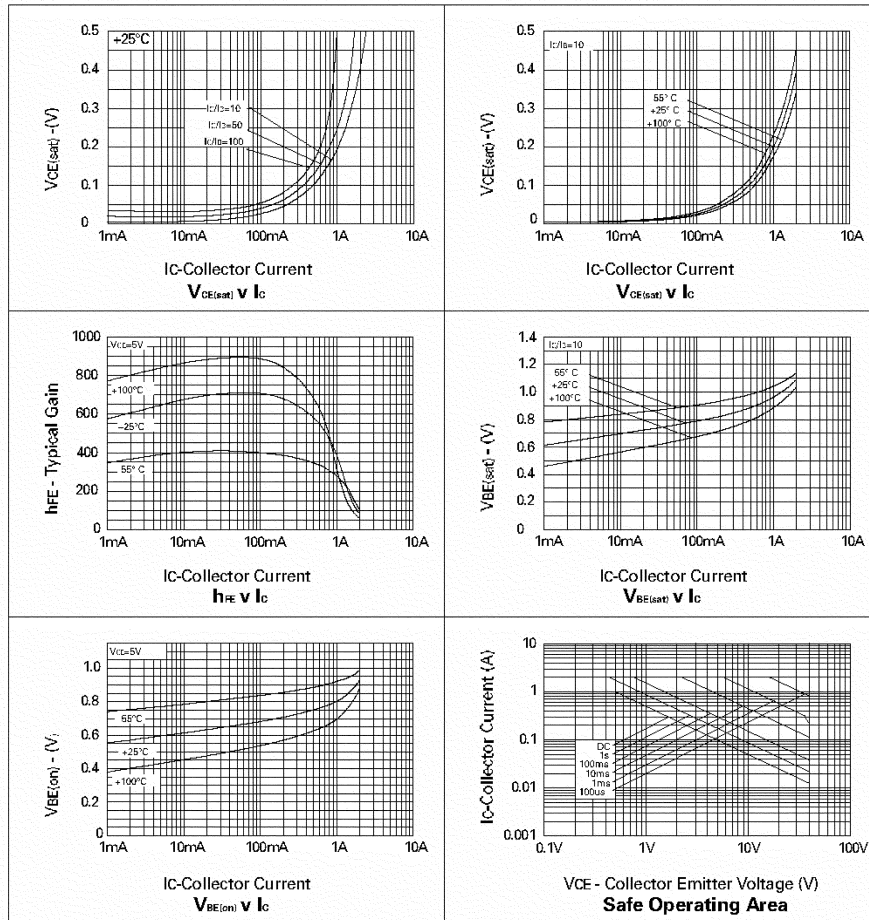
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