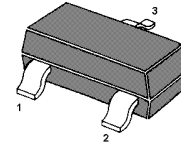


# MMBT4140

## NPN Silicon General Purpose 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	$V_{CBO}$	40	V
Collector Emitter Voltage	$V_{CEO}$	30	V
Emitter Base Voltage	$V_{EBO}$	5	V
Collector Current (DC)	$I_C$	1	A
Peak Collector Current	$I_{CM}$	2	A
Peak Base Current	$I_{BM}$	1	A
Total Power Dissipation	$P_{tot}$	200 <sup>1)</sup>	mW
		450 <sup>2)</sup>	
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to +150	$^\circ\text{C}$

<sup>1)</sup> Device mounted on a printed-circuit board; single sided copper; tinplated; standard footprint.

<sup>2)</sup> Device mounted on a printed-circuit board; single sided copper; tinplated; mounting pad for collector 1cm<sup>2</sup>

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

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 Base Cutoff Current at $V_{CB} = 40\text{ V}$	$I_{CBO}$	-	100	nA
Collector Emitter Cutoff Current at $V_{CE} = 30\text{ V}$	$I_{CEO}$	-	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 $I_C = 500\text{ mA}$ , $I_B = 50\text{ mA}$ at $I_C = 1\text{ A}$ , $I_B = 100\text{ mA}$	$V_{CE(sat)}$	- - -	200 250 500	mV
Base Emitter Saturation Voltage at $I_C = 1\text{ A}$ , $I_B = 100\text{ mA}$	$V_{BE(sat)}$	-	1.2	V
Base Emitter Turn-on Voltage at $V_{CE} = 5\text{ V}$ , $I_C = 1\text{ A}$	$V_{BE(on)}$	-	1.1	V
Transition Frequency at $V_{CE} = 10\text{ V}$ , $I_C = 50\text{ mA}$ , $f = 100\text{ MHz}$	$f_T$	150	-	HMz
Collector Capacitance at $V_{CB} = 10\text{ V}$ , $f = 1\text{ MHz}$	$C_{ob}$	-	10	pF

单击下面可查看定价，库存，交付和生命周期等信息

[>>EIC](#)