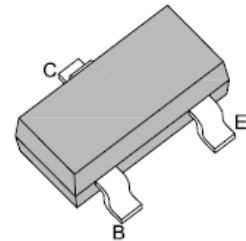


## SMD General Purpose Transistor (PNP)

### Features

- PNP Silicon Epitaxial Planar Transistor for Switching and Amplifier Applications
- RoHS compliance



### Mechanical Data

SOT-23



<b>Case:</b>	SOT-23, Plastic Package
<b>Terminals:</b>	Solderable per MIL-STD-202G, Method 208
<b>Weight:</b>	0.008 gram

### Maximum Ratings *(T<sub>Ambient</sub>=25°C unless noted otherwise)*

Symbol	Description	MMBT2907A	Unit	Conditions
	Marking Code	2F		
<b>-V<sub>CEO</sub></b>	Collector-Emitter Voltage (Open Base)	60	V	
<b>-V<sub>CBO</sub></b>	Collector-Base Voltage (Open Emitter)	60	V	
<b>-V<sub>EBO</sub></b>	Emitter-Base Voltage (Open Collector)	5.0	V	
<b>-I<sub>C</sub></b>	Collector Current (D.C)	600	mA	
<b>P<sub>tot</sub></b>	Power Dissipation above 25°C	250	mW	
<b>f<sub>T</sub></b>	Transition Frequency at f= 100MHz	200	MHz	-I <sub>C</sub> =50mA, -V <sub>CE</sub> =20V
<b>R<sub>θj-a</sub></b>	From junction to ambient in free air	500	K/W	
<b>T<sub>J</sub></b>	Junction Temperature	150	°C	
<b>T<sub>STG</sub></b>	Storage Temperature Range	-55 to +150	°C	

# SMD General Purpose Transistor (PNP)

## MMBT2907A

### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

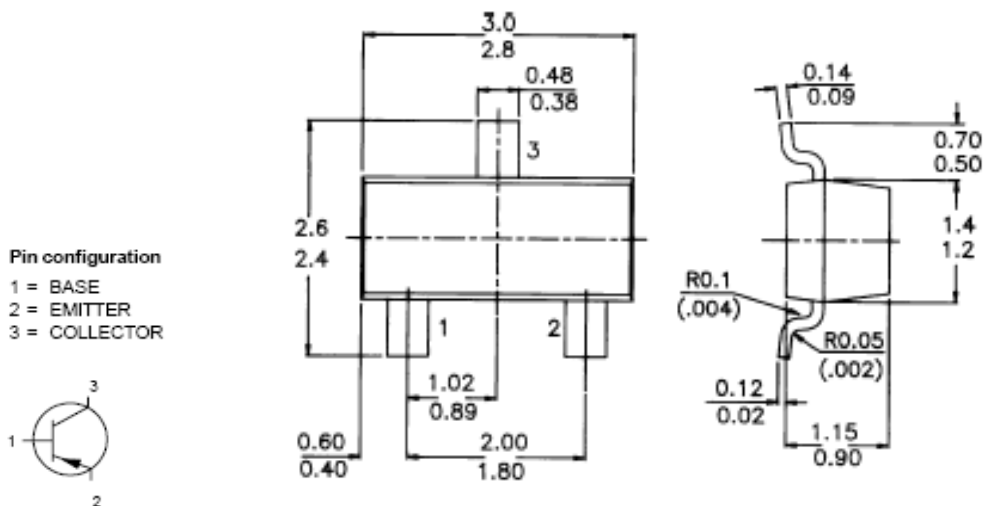
Symbol	Description	Min.	Max.	Unit	Conditions
<b>hFE</b>	D.C. Current Gain	75	-		$-V_{CE}=10V, -I_C=0.1mA$
		100	-		$-V_{CE}=10V, -I_C=1mA$
		100	-		$-V_{CE}=10V, -I_C=10mA$
		100	300		$-V_{CE}=10V, -I_C=150mA$
		50	-		$-V_{CE}=10V, -I_C=500mA$
<b>-ICBO</b>	Collector Cut-Off Current	-	10	nA	$-V_{CB}=50V, I_E=0$
		-	10	$\mu A$	$-V_{CB}=50V, I_E=0, T_j=125^{\circ}C$
<b>-ICEX</b>		-	50	nA	$-V_{EB}=0.5V, -V_{CE}=30V$
<b>-IBEX</b>	Base Current with Reverse Biased Emitter Junction	-	50	nA	$-V_{EB}=3V, -V_{CE}=30V$
<b>-VCEsat</b>	Collector-Emitter Saturation Voltage	-	0.4	V	$-I_C=150mA, -I_B=15mA$
		-	1.6		$-I_C=500mA, -I_B=50mA$
<b>-VBEsat</b>	Base-Emitter Saturation Voltage	-	1.3	V	$-I_C=150mA, -I_B=15mA$
		-	2.6		$-I_C=500mA, -I_B=50mA$
<b>-V(BR)CEO</b>	Collector-Emitter Breakdown Voltage	60	-	V	$-I_C=10mA, I_B=0$
<b>-V(BR)CBO</b>	Collector-Base Breakdown Voltage	60	-	V	$-I_C=10\mu A, I_E=0$
<b>-V(BR)EBO</b>	Emitter-Base Breakdown Voltage	5.0	-	V	$-I_E=10\mu A, I_C=0$
<b>fT</b>	Current Gain-Bandwidth Product	200	-	MHz	$-V_{CE}=20V, -I_C=50mA, f=100MHz$
<b>Co</b>	Output Capacitance	-	8.0	pF	$-V_{CB}=10V, f=1.0MHz, I_E=0$
<b>Ci</b>	Input Capacitance	-	30	pF	$-V_{EB}=2.0V, f=1.0MHz, I_C=0$
<b>ton</b>	Turn on Time	-	45	ns	$-I_B=15mA$ $-I_C=150mA$ $-V_{CC}=30V$
<b>td</b>	Delay Time	-	10		
<b>tr</b>	Rise Time	-	40		
<b>toff</b>	Turn-Off Time ( $t_s + t_f$ )	-	100	ns	$-I_B=15mA$ $-I_C=150mA$ $-V_{CC}=6V$
<b>ts</b>	Storage Time	-	80		
<b>tf</b>	Fall Time	-	30		

# SMD General Purpose Transistor (PNP)

## MMBT2907A

Dimensions in mm

SOT-23



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