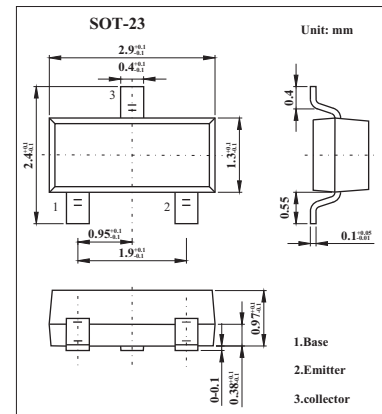


## PNP General Purpose Amplifier

### MMBT2907

#### ■ Features

- Collector Current to Continuous : $I_c=-600\text{mA}$
- Power Dissipation : $P_D=250\text{mW}$



#### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CB0}$	-60	V
Collector-Emitter Voltage	$V_{CE0}$	-40	V
Emitter-Base Voltage	$V_{EB0}$	-5	V
Collector Current - Continuous	$I_c$	-600	mA
Total Device Dissipation	$P_D$	250	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	500	$^\circ\text{C}/\text{W}$
Operating and Storage Junction Temperature Range	$T_J, T_{stg}$	-55 to +150	$^\circ\text{C}$

## MMBT2907

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

Parameter	Symbol	Test conditons	Min	Max	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10 \mu\text{A}, I_E = 0$	-60		V
Collector-Emitter Breakdown Voltage*	$V_{(BR)CEO}$	$I_C = -10 \text{mA}, I_B = 0$	-40		V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10 \mu\text{A}, I_C = 0$	-5		V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -50\text{V}, I_E = 0$		-100	nA
Emitter cut-off current	$I_{EBO}$	$V_{CE} = -3\text{V}, I_C = 0$		-100	nA
DC Current Gain	$h_{FE}$	$I_C = -0.1 \text{mA}, V_{CE} = -10 \text{V}$	35		
		$I_C = -1.0 \text{mA}, V_{CE} = -10 \text{V}$	50		
		$I_C = -10 \text{mA}, V_{CE} = -10 \text{V}$	75		
		$I_C = -150 \text{mA}, V_{CE} = -10 \text{V}$	100	300	
		$I_C = -500 \text{mA}, V_{CE} = -10 \text{V}$	30		
Collector-Emitter Saturation Voltage*	$V_{CE(sat)}$	$I_C = -150 \text{mA}, I_B = -15 \text{mA}$		-0.4	V
		$I_C = -500 \text{mA}, I_B = -50 \text{mA}$		-1.6	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -150 \text{mA}, I_B = -15 \text{mA}$		-1.3	V
		$I_C = -500 \text{mA}, I_B = -50 \text{mA}$		-2.6	V
Current Gain - Bandwidth Product	$f_T$	$I_C = -50 \text{mA}, V_{CE} = -20 \text{V}, f = 100 \text{MHz}$	200		MHz
Output Capacitance	$C_{obo}$	$V_{CB} = -10 \text{V}, I_E = 0, f = 100 \text{kHz}$		8.0	pF
Input Capacitance	$C_{ibo}$	$V_{EB} = -2.0 \text{V}, I_C = 0, f = 100 \text{kHz}$		30	pF
Turn-on Time	$t_{on}$	$V_{CC} = -30 \text{V}, I_C = -150 \text{mA}, I_{B1} = -15 \text{mA}$		45	ns
Delay Time	$t_d$			10	ns
Rise Time	$t_r$			40	ns
Turn-off Time	$t_{off}$	$V_{CC} = -6.0 \text{V}, I_C = -150 \text{mA}, I_{B1} = I_{B2} = -15 \text{mA}$		100	ns
Storage Time	$t_s$			80	ns
Fall Time	$t_f$			30	ns

## ■ Marking

Marking	M2B
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