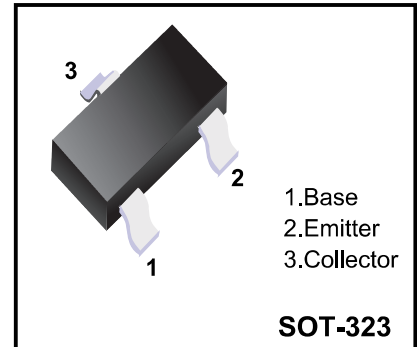


■ PNP General Purpose Transistor

■ Features

- General purpose transistor.
- Pb-Free package is available.



<b>Marking Code</b>	
<b>MMBT2907AW</b>	<b>2F</b>

■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-emitter voltage	V <sub>CEO</sub>	-60	V
Collector-base voltage	V <sub>CBO</sub>	-60	V
Emitter-base voltage	V <sub>EB0</sub>	-5	V
Collector current	I <sub>c</sub>	-600	mA
Total Device Dissipation FR-5 Board	P <sub>D</sub>	150	mW
Thermal Resistance, Junction-to-Ambient	R <sub>θJA</sub>	833	°C/W
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

\* FR-5 = 1.0X 0.75 X0.062 in.

**■ Electrical Characteristics Ta = 25°C**

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10 \text{ mA}, I_B = 0$	-60			V
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10 \text{ mA}, I_E = 0$	-60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10 \text{ }\mu\text{A}, I_C = 0$	-5			V
Base cutoff current	$I_{BL}$	$V_{CE} = -30 \text{ V}, V_{EB(off)} = -0.5 \text{ V}$			-50	nA
Collector cutoff current	$I_{CEX}$	$V_{CE} = -30 \text{ V}, V_{EB(off)} = -0.5 \text{ V}$			-50	nA
DC current gain *	HFE	$I_C = -0.1 \text{ mA}, V_{CE} = -10 \text{ V}$	75			
		$I_C = -1.0 \text{ mA}, V_{CE} = -10 \text{ V}$	100			
		$I_C = -10 \text{ mA}, V_{CE} = -10 \text{ V}$	100			
		$I_C = -150 \text{ mA}, V_{CE} = -10 \text{ V}$	100			
		$I_C = -500 \text{ mA}, V_{CE} = -10 \text{ V}$	50			
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	
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C = -150 \text{ mA}, I_B = -15 \text{ mA}$			-1.3	
		$I_C = -500 \text{ mA}, I_B = -50 \text{ mA}$			-2.6	
Current-gain-bandwidth product	$f_T$	$I_C = -50 \text{ mA}, V_{CE} = 20 \text{ V}, f = 100 \text{ MHz}$	200			
Output capacitance	$C_{obo}$	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1.0 \text{ MHz}$			8.0	pF
Input capacitance	$C_{ibo}$	$V_{EB} = -2.0 \text{ V}, I_C = 0, f = 1.0 \text{ MHz}$			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
Storage time	$t_s$				80	ns
Fall time	$t_f$				30	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

\* Pulse test: pulse width  $\leq 300 \text{ }\mu\text{s}$ , duty cycle  $\leq 2.0\%$ .

**Ordering information**

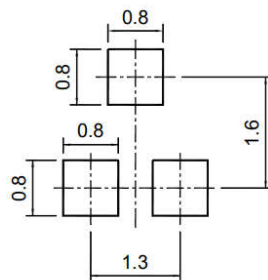
Package	Packing Description	Base Quantity	Packing Quantity
SOT-323	Tape/Reel, 7" reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

**Package Dimensions**

**SOT-323**

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.8	1.1	32	43
A1	0.1		4	
bp	0.3	0.4	12	16
C	0.10	0.25	4	10
D	1.8	2.2	71	87
E	1.15	1.35	45	53
E	1.3		51	
E1	0.65		26	
HE	2.0	2.2	79	87
Lp	0.15	0.45	6	18
Q	0.13	0.23	5.1	9
v	0.2		8	
W	0.2		8	

**The recommended mounting pad size**



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