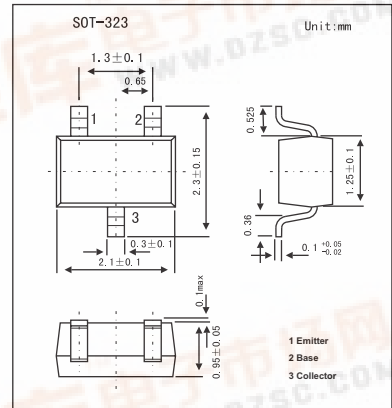
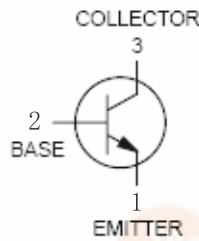


SMD Type Transistors

General Purpose Transistor
MMBT2907AW

■ Features

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



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-emitter voltage	V _{CEO}	-60	V
Collector-base voltage	V _{CBO}	-60	V
Emitter-base voltage	V _{EBO}	-5	V
Collector current	I _c	-600	mA
Total Device Dissipation FR-5 Board	P _D	150	mW
Thermal Resistance, Junction-to-Ambient	R _{θJA}	833	°C/W
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

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

MMBT2907AW

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit	
Collector-emitter breakdown voltage	V(BR)CEO	Ic = -10 mA, Ib = 0	-60			V	
Collector-base breakdown voltage	V(BR)CBO	Ic = -10 mA, Ie = 0	-60			V	
Emitter-base breakdown voltage	V(BR)EBO	Ie = -10 μA, Ic = 0	-5			V	
Base cutoff current	IBL	VCE = -30 V, VEB(off) = -0.5 V			-50	nA	
Collector cutoff current	ICEX	VCE = -30 V, VEB(off) = -0.5 V			-50	nA	
DC current gain *	HFE	Ic = -0.1 mA, VCE = -10 V	75				
		Ic = -1.0 mA, VCE = -10 V	100				
		Ic = -10 mA, VCE = -10 V	100				
		Ic = -150 mA, VCE = -10 V	100				
		Ic = -500 mA, VCE = -10 V	50				
Collector-emitter saturation voltage *	VCE(sat)	Ic = -150 mA, Ib = -15 mA			-0.4	V	
		Ic = -500 mA, Ib = -50 mA			-1.6		
Base-emitter saturation voltage *	VBE(sat)	Ic = -150 mA, Ib = -15 mA			-1.3		
		Ic = -500 mA, Ib = -50 mA			-2.6		
Current-gain-bandwidth product	fr	Ic = -50 mA, VCE = 20 V, f = 100 MHz	200				MHz
Output capacitance	Cobo	VCB = -10 V, Ie = 0, f = 1.0 MHz			8.0		pF
Input capacitance	Cibo	VEB = -2.0 V, Ic = 0, f = 1.0 MHz			30	pF	
Turn?on time	ton	VCC = -30 V, Ic = -150 mA, Ib1 = -15 mA			45	ns	
Delay time	td				10	ns	
Rise time	tr				40	ns	
Storage time	ts				80	ns	
Fall time	tf		VCC = -6.0 V, Ic = -150 mA, Ib1 = Ib2 = 15 mA			30	ns
Turn?off time	toff				100	ns	

* Pulse test: pulse width ≤ 300 μs, duty cycle ≤ 2.0%.

■ Marking

Marking	20
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