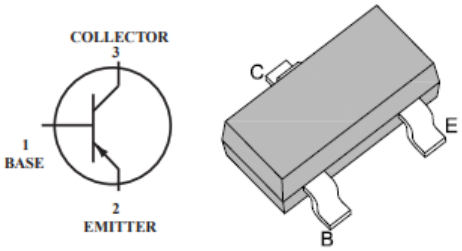
SMD General Purpose Transistor (PNP)



SOT-23

Features

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

Mechanical Data

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

Maximum Ratings *(T Ambient=25ºC unless noted otherwise)*

Symbol	Description	MMBT2907A	Unit	Conditions
$-V_{CEO}$	Collector-Emitter Voltage (Open Base)	60	V	
$-V_{CBO}$	Collector-Base Voltage (Open Emitter)	60	V	
$-V_{EBO}$	Emitter-Base Voltage (Open Collector)	5.0	V	
$-I_C$	Collector Current (D.C)	600	mA	
P_{tot}	Power Dissipation above 25°C	225	mW	Note 1
f_T	Transition Frequency at f= 100MHz	200	MHz	$-I_C$=50mA, $-V_{CE}$=20V
$R_{\theta j\text{-}a}$	Thermal Resistance, Junction to Ambient	417	° C /W	
T_J	Junction Temperature	150	° C	
T_{STG}	Storage Temperature Range	-55 to +150	° C	

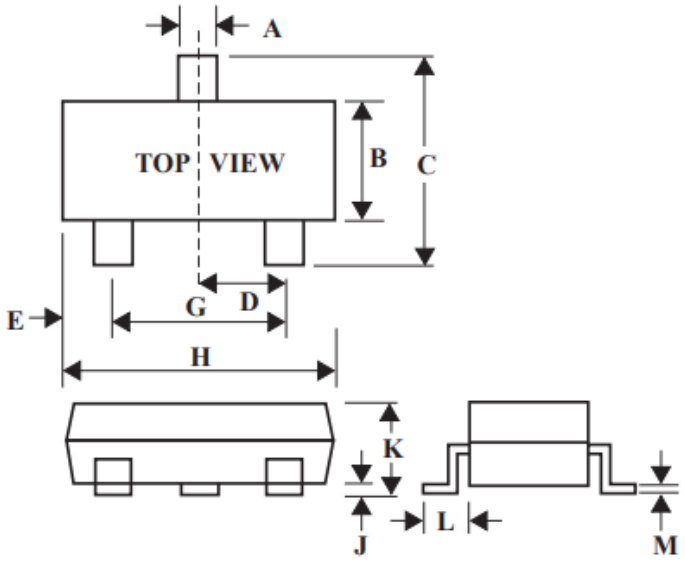
Note 1: FR-5 board:1 .0 x 0.75 x 0.062 inch

Electrical Characteristics *($T_{Ambient}$=25ºC unless noted otherwise)*

Symbol	Description	Min.	Max.	Unit	Conditions
h_{FE}	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
$-I_{CBO}$	Collector Cut–Off Current	-	10	nA	$-V_{CB}$=50V, I_E=0
		-	10	µA	$-V_{CB}$=50V, I_E=0, Tj=125° C
$-I_{CEX}$		-	50	nA	$-V_{EB}$=0.5V, $-V_{CE}$=30V
$-I_{BEX}$	Base Current with Reverse Biased Emitter Junction	-	50	nA	$-V_{EB}$=3V, $-V_{CE}$=30V
$-V_{CEsat}$	Collector-Emitter Saturation Voltage	-	0.4	V	$-I_C$=150mA, $-I_B$=15mA
		-	1.6		$-I_C$=500mA, $-I_B$=50mA
$-V_{BEsat}$	Base-Emitter Saturation Voltage	-	1.3	V	$-I_C$=150mA, $-I_B$=15mA
		-	2.6		$-I_C$=500mA, $-I_B$=50mA
$-V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	60	-	V	$-I_C$=10mA, I_B=0
$-V_{(BR)CBO}$	Collector-Base Breakdown Voltage	60	-	V	$-I_C$=10µA, I_E=0
$-V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	5.0	-	V	$-I_E$=10µA, I_C=0
f_T	Current Gain-Bandwidth Product	200	-	MHz	$-V_{CE}$=20V, $-I_C$=50mA, f=100MHz
C_o	Output Capacitance	-	8.0	pF	$-V_{CB}$=10V, f=1.0MHz, I_E=0
C_i	Input Capacitance	-	30	pF	$-V_{EB}$=2.0V, f=1.0MHz, I_C=0
t_{on}	Turn on Time	-	45	ns	$-I_B$=15mA $-I_C$=150mA $-V_{CC}$=30V
t_d	Delay Time	-	10		
t_r	Rise Time	-	40		
t_{off}	Turn-Off Time (ts + tf)	-	100	ns	$-I_B$=15mA $-I_C$=150mA $-V_{CC}$=6V
t_s	Storage Time	-	80		
t_f	Fall Time	-	30		

MMBT2907A

Dimensions in mm



Dim	Min	Max
A	0.35	0.51
B	1.19	1.40
C	2.10	3.00
D	0.85	1.05
E	0.46	1.00
G	1.70	2.10
H	2.70	3.10
J	0.01	0.13
K	0.89	1.10
L	0.30	0.61
M	0.076	0.25

SOT-23

How to contact us

USA HEADQUARTERS
28040 WEST HARRISON PARKWAY, VALENCIA, CA 91355-4162
Tel: (800)-TAITRON (800)-824-8766 (661)-257-6060
Fax: (800)-TAITFAX (800)-824-8329 (661)-257-6415
Email: taitron@taitroncomponents.com
Http://www.taitroncomponents.com

TAITRON COMPONENTS INCORPORATED TAIWAN BRANCH
6F., NO.190, SEC. 2, ZHONGXING RD., XINDIAN DIST., NEW TAIPEI CITY 23146, TAIWAN R.O.C.
Tel: 886-2-2913-6238
Fax: 886-2-2913-6239

TAITRON COMPONENT TECHNOLOG SHANGHAI CORPORATION
SUITE 1503, METROBANK PLAZA, 1160 WEST YAN'AN ROAD, SHANGHAI, 200052, CHINA
Tel: +86-21-5424-9942
Fax: +86-21-2302-5027