



MMBT945-L

MMBT945-H

Features

- Capable of 0.2Watts of Power Dissipation.
- Collector-current 0.15A
- Collector-base Voltage 60V
- Operating and storage junction temperature range: -55°C to +150°C
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking: CR•

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
$V_{(BR)CEO}$	Collector-Emmitter Breakdown Voltage ($I_C=1mA$, $I_B=0$)	50		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=100\mu A$, $I_E=0$)	60		Vdc
$V_{(BR)EBO}$	Emmitter-Base Breakdown Voltage ($I_E=100\mu A$, $I_C=0$)	5.0		Vdc
I_{CBO}	Collector Cutoff Current ($V_{CB}=60V$, $I_E=0$)		0.1	μA
I_{CER}	Collector Cutoff Current ($V_{CE}=55V$, $R=10M\Omega$)		0.1	μA
I_{EBO}	Emmitter Cutoff Current ($V_{EB}=5.0V$, $I_C=0$)		0.1	μA

ON CHARACTERISTICS

$h_{FE(1)}$	DC Current Gain ($I_C=1.0mA$, $V_{CE}=6.0V$)	130	400	
$h_{FE(2)}$	DC Current Gain ($I_C=0.1mA$, $V_{CE}=6.0V$)	40		
$V_{CE(sat)}$	Collector-Emmitter Saturation Voltage ($I_C=100mA$, $I_B=10mA$)		0.3	Vdc
$V_{BE(sat)}$	Base-Emmitter Saturation Voltage ($I_C=100mA$, $I_B=10mA$)		1.0	Vdc
C_{ob}	Collector output capacitance ($V_{CB}=10V$, $I_E=0$, $f=1MHz$)		3.0	pF

SMALL-SIGNAL CHARACTERISTICS

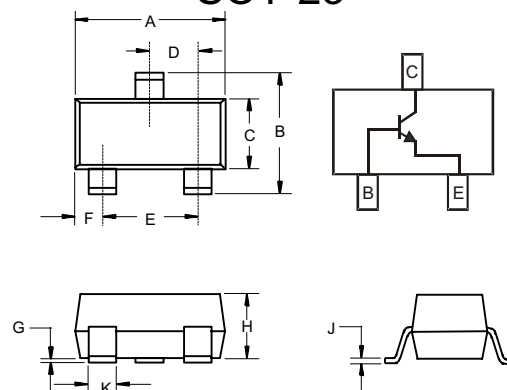
f_T	Transistor Frequency ($I_C=10mA$, $V_{CE}=6.0V$, $f=30MHz$)	150		MHz
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CLASSIFICATION OF H_{FE}

Rank	L	H
Range	130-200	200-400

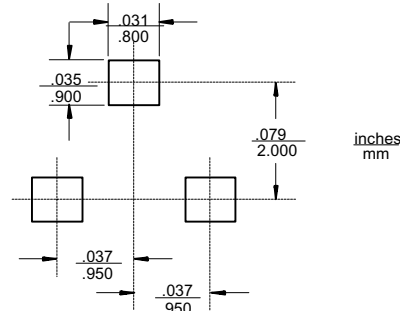
NPN Silicon Plastic-Encapsulate Transistor

SOT-23



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.098	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

Suggested Solder Pad Layout



Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel; 3Kpcs/Reel

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