



Micro Commercial Components

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
- Case Material:Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Marking: CR •

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
--------	-----------	-----	-----	-------

OFF CHARACTERISTICS

$V_{(BR)CEO}$	Collector-Emitter 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
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=100\mu A, I_C=0$)	5.0		Vdc
I_{CBO}	Collector Cutoff Current ($V_{CB}=60Vdc, I_E=0A$)		0.1	μA
I_{CER}	Collector Cutoff Current ($V_{CE}=55Vdc, R=10M\ \Omega$)		0.1	μA
I_{EBO}	Emitter Cutoff Current ($V_{EB}=5.0Vdc, I_C=0A$)		0.1	μA

ON CHARACTERISTICS

$h_{FE(1)}$	DC Current Gain ($I_C=1.0mA, V_{CE}=6.0Vdc$)	130	400	
$h_{FE(2)}$	DC Current Gain ($I_C=0.1mA, V_{CE}=6.0Vdc$)	40		
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=100mA, I_B=10mA$)		0.3	Vdc
$V_{BE(sat)}$	Base-Emitter 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

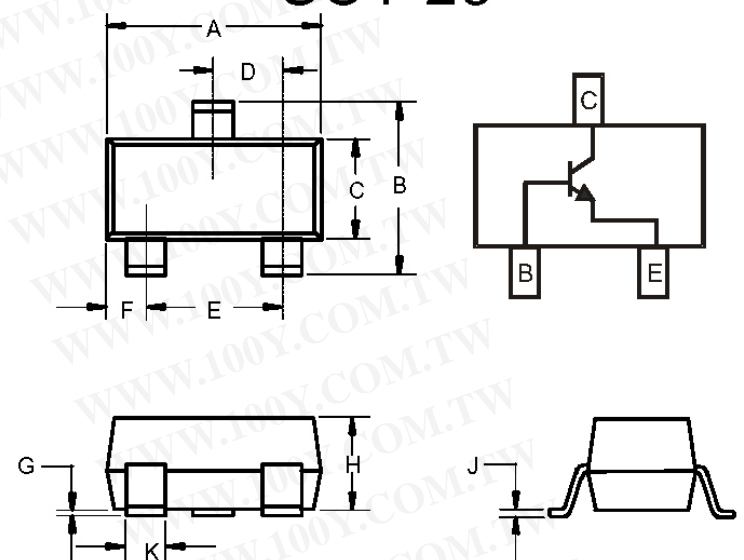
f_T	Transistor Frequency ($I_C=10mA, V_{CE}=6.0Vdc, f=30MHz$)	150		MHz
-------	--	-----	--	-----

CLASSIFICATION OF $h_{FE(1)}$

Rank	L	H
Range	130-200	200-400

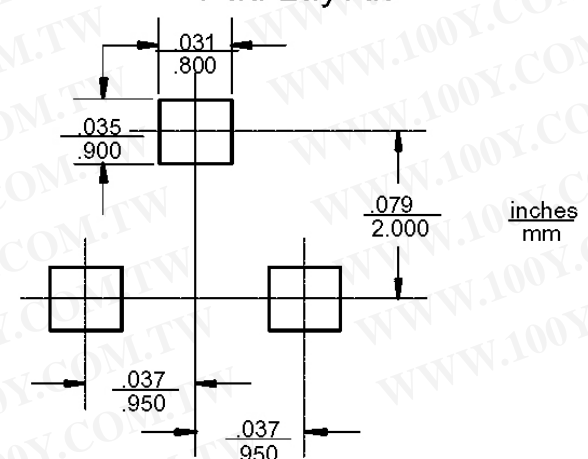
NPN Silicon Plastic-Encapsulate Transistor

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



勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



Micro Commercial Components

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

Ordering Information

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

IMPORTANT NOTICE

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. *Micro Commercial Components Corp.* does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold *Micro Commercial Components Corp.* and all the companies whose products are represented on our website, harmless against all damages.

APPLICATIONS DISCLAIMER

Products offer by *Micro Commercial Components Corp.* are not intended for use in Medical, Aerospace or Military Applications.