Micro Commercial Components

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MMBTA44

NPN Silicon High Voltage Transistor

350mW

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1
- Surface Mount SOT-23 Package
- 150℃ Junction Temperature
- Halogen free available upon request by adding suffix "-HF"

Mechanical Data

- Power dissipation: 0.35W
- Marking: 3D/A44

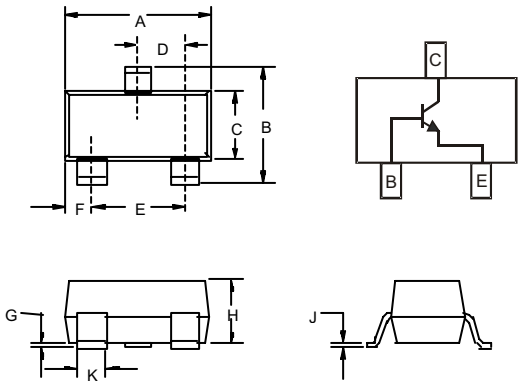
Maximum Ratings

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	400	V
V_{CBO}	Collector-Base Voltage	500	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	100	mA
P_C	Collector power dissipation	350	mW
T_J	Junction Temperature	-55 to +150	℃
T_{STG}	Storage Temperature	-55 to +150	℃

Electrical Characteristics @ 25℃ Unless Otherwise Specified

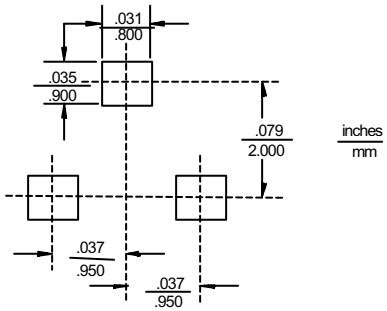
Symbol	Parameter	Min	Typ	Max	Units
I_{CBO}	Collector Cutoff Current (V_{CB}= 400Vdc,I_E=0)	---	---	100	nAdc
I_{EBO}	Emitter Cutoff Current (V_{EB}=4.0Vdc,I_C=0)	---	---	100	nAdc
BV_{CBO}	Collector-base breakdown voltage (I_C=100μAdc,I_E=0)	500	---	---	Vdc
BV_{CEO}	Collector-emitter breakdown voltage (I_C=1mAdc,I_B=0)	400	---	---	Vdc
BV_{EBO}	Emitter-base breakdown voltage (I_E=10μAdc,I_C=0)	6	---	---	Vdc
h_{FE}	DC Current Gain (I_C=1mAdc, V_{CE}=10Vdc) (I_C=10mAdc, V_{CE}=10Vdc) (I_C=50mAdc, V_{CE}=10Vdc) (I_C=100mAdc, V_{CE}=10Vdc)	 40 50 45 40	 --- --- --- ---	 ----- 200 ----- -----	 --- --- --- ---
$V_{CE(sat)}$	Collector Saturation Voltage (I_C=1mAdc, I_B=0.1mAdc) (I_C=50mAdc, I_B=5mA)	 --- ---	 --- ---	 0.4 0.75	 V V
$V_{BE(sat)}$	Collector Saturation Voltage (I_C=10mAdc, I_B=1mAdc)	---	---	0.75	V
f_T	Gain Bandwidth product (V_{CE}=20Vdc, I_c=10mAdc,f=30MHz)	---	50	---	MHz

SOT-23

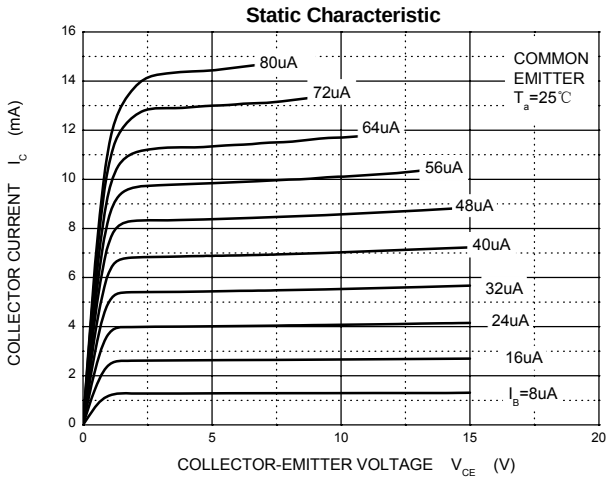


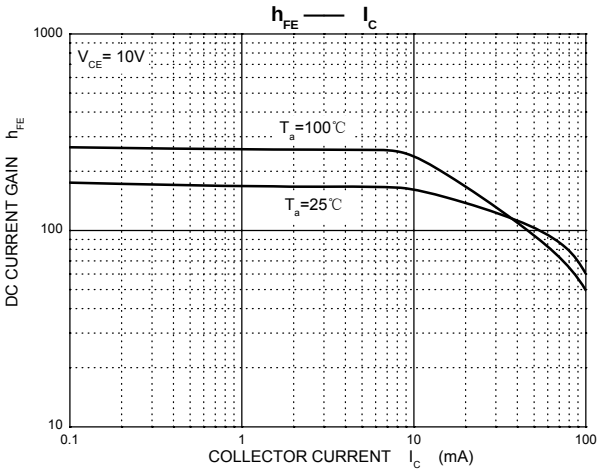
DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

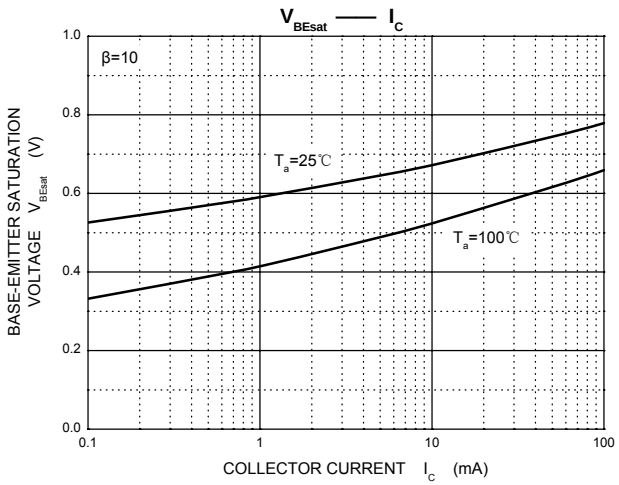
Suggested Solder Pad Layout

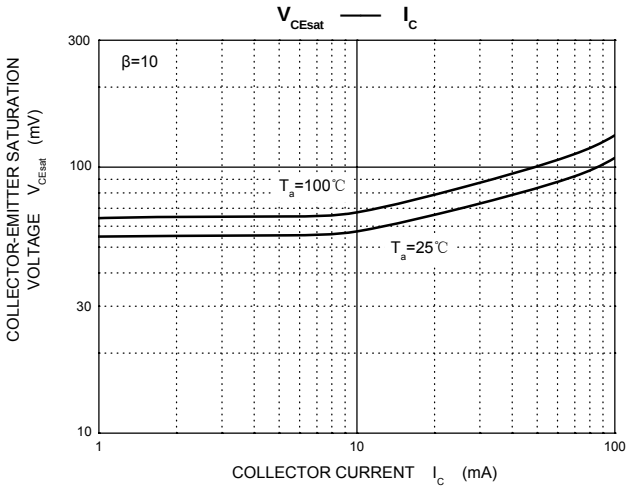


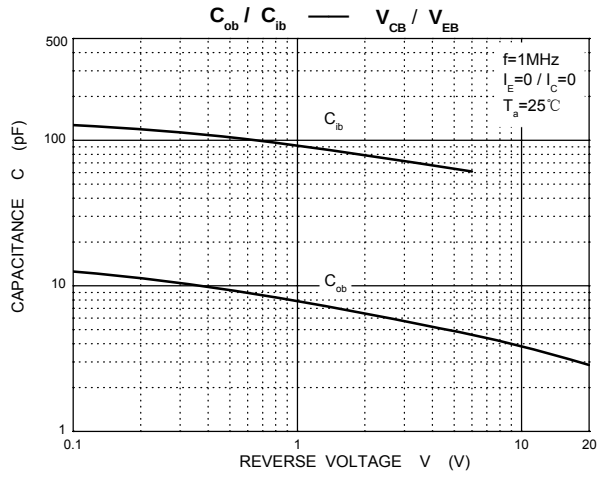
Typical Characteristics

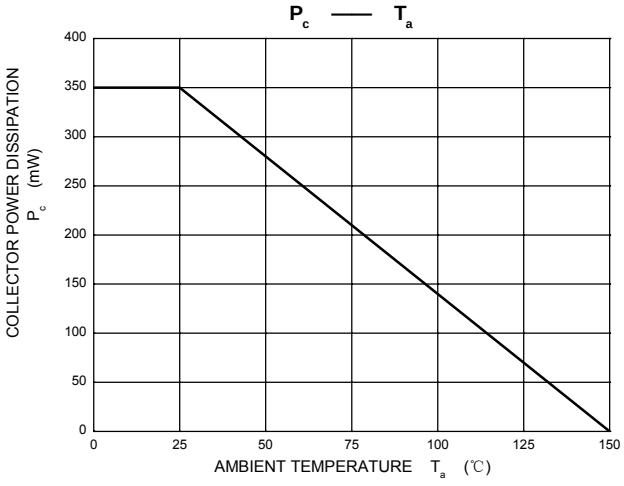












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Ordering Information :

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

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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