

**Micro Commercial Components** 



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

Phone: (818) 701-4933 Fax: (818) 701-4939

# 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

## **Mechanical Data**

Power dissipation: 0.35W

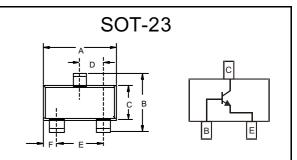
Marking: 3D/A44

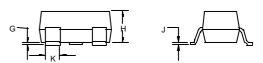
# **Maximum Ratings**

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
Ic	Collector Current	300	mA
Pc	Collector power dissipation	350	mW
$T_J$	Junction Temperature	-55 to +150	$^{\circ}\!\mathbb{C}$
T <sub>STG</sub>	Storage Temperature	-55 to +150	$^{\circ}\mathbb{C}$

### Electrical Characteristics @ $25^{\circ}$ C Unless Otherwise Specified

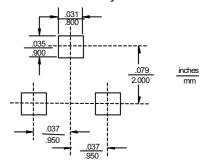
Symbol	Parameter	Min	Тур	Max	Units
I <sub>CBO</sub>	Collector Cutoff Current (V <sub>CB</sub> = 400Vdc,IE=0)			100	nAdc
I <sub>EBO</sub>	Emitter Cutoff Current (V <sub>EB</sub> =4.0Vdc,Ic=0)			100	nAdc
BV <sub>CBO</sub>	Collector-base breakdown voltage (I <sub>c</sub> =100µAdc,IE=0)	500			Vdc
BV <sub>CEO</sub>	Collector-emitter breakdown voltage (I <sub>C</sub> =1mAdc,I <sub>B</sub> =0)	400			Vdc
BV <sub>EBO</sub>	Emitter-base breakdown voltage (I <sub>E</sub> =10μAdc,Ic=0)	6			Vdc
h <sub>FE</sub>	DC Current Gain (I <sub>c</sub> =1mAdc, V <sub>CE</sub> =10Vdc) (I <sub>c</sub> =10mAdc, V <sub>CE</sub> =10Vdc) (I <sub>c</sub> =50mAdc, V <sub>CE</sub> =10Vdc) (I <sub>c</sub> =100mAdc, V <sub>CE</sub> =10Vdc)	40 50 45 40		200 	
$V_{CE(sat)}$	Collector Saturation Voltage (I <sub>c</sub> =1mAdc, I <sub>B</sub> =0.1mAdc) (I <sub>c</sub> =50mAdc, I <sub>B</sub> =5mA)			0.4 0.75	V
$V_{BE(sat)}$	Collector Saturation Voltage (I <sub>C</sub> =10mAdc, I <sub>B</sub> =1mAdc)			0.75	٧
f⊤	Gain Bandwidth product (V <sub>CE</sub> =20Vdc, I <sub>c</sub> =10mAdc,f=30MHz)		50		MHz





DIMENSIONS					
	INCHES M		M		
DIM	MIN	MAX	MIN	MAX	NOTE
Α	.110	.120	2.80	3.04	
В	.083	.098	2.10	2.64	
O	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
Е	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
Н	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

### Suggested Solder Pad Layout





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### **Ordering Information:**

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

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