

# MMBZ5V6B

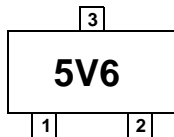
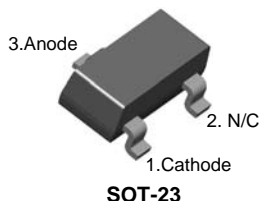
## 24 Watt Peak Power Zener Transient Voltage Suppressor

### Applications

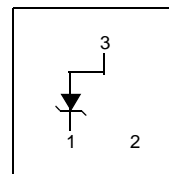
- For use as transient overvoltage protection for voltage and ESD sensitive equipment like laptop computers, HDD, printers, cellular phones, and other applications.

### Features

- SOT-23 Zener for ESD Protection
- Pb-free
- Maximum Clamping voltage = 8V @ Peak Pulse Current= 3A
- Working Peak Reverse Voltage = 3V
- HBM = 16KV (Class 3) ESD Rating
- Flammability Rating UL94 V-O



Connection Diagram



### Absolute Maximum Ratings \* T<sub>a</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value	Unit
V <sub>RWM</sub>	Working Peak Reverse Voltage	3.0	V
P <sub>D</sub>	Total Power Dissipation at 25°C Derate above 25°C	225 1.8	mW mW/°C
P <sub>pk</sub>	Peak Power Dissipation @1.0mS	27	W
T <sub>STG</sub>	Storage Temperature	-55 to +150	°C
T <sub>J</sub>	Operating Junction Temperature	+150	°C
R <sub>θJA</sub>	Thermal Resistance Junction to Ambient, FR-5 Board	550	°C/W

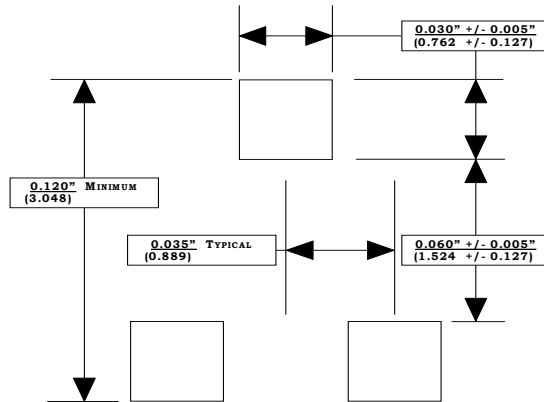
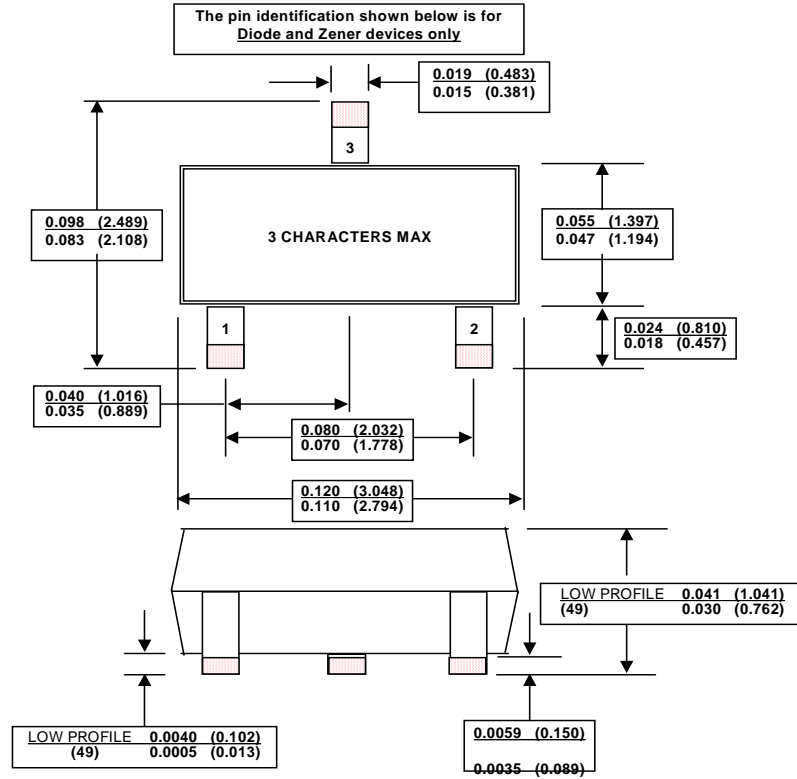
\* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### Electrical Characteristics T<sub>C</sub> = 25°C unless otherwise noted

Symbol	Parameter	Conditions	Min.	Max.	Units
V <sub>Z</sub>	Zener Voltage	I <sub>ZT</sub> = 20mA <sub>D.C</sub> I <sub>ZT</sub> = 20mA <sub>Pulse</sub> 26mS	5.32 5.31	5.88 5.85	V V
Z <sub>Z</sub>	Zener Impedance	I <sub>ZT</sub> = 20mA		11	Ω
Z <sub>ZK</sub>	Zener Knee Impedance	I <sub>ZK</sub> = 250μA		1600	Ω
I <sub>R</sub>	Reverse Leakage	V <sub>R</sub> = 3V		5	μA
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> = 10mA		900	mV
V <sub>CL</sub>	Clamping Voltage	I <sub>PP</sub> =3A Square wave T <sub>p</sub> =300uS		8.0	V

Mechanical Dimensions

SOT-23



RECOMMENDED SOLDER PADS  
FOR  
SOT-23



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Rev. I23

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