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MMBZ5V6B

24 Watt Peak Power Zener Transient Voltage Suppressor

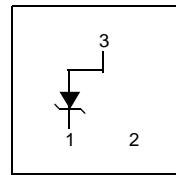
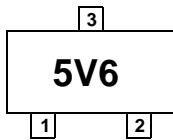
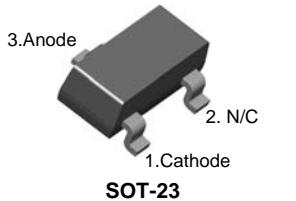
Applications

- 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 *

$T_a = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Unit
V_{RWM}	Working Peak Reverse Voltage	3.0	V
P_D	Total Power Dissipation at 25°C Derate above 25°C	225 1.8	mW mW/ $^\circ\text{C}$
P_{pk}	Peak Power Dissipation @ 1.0mS	27	W
T_{STG}	Storage Temperature	-55 to +150	$^\circ\text{C}$
T_J	Operating Junction Temperature	+150	$^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance Junction to Ambient, FR-5 Board	550	$^\circ\text{C}/\text{W}$

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

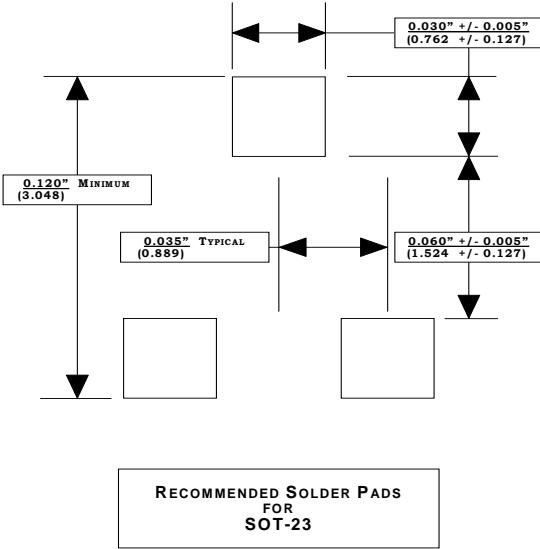
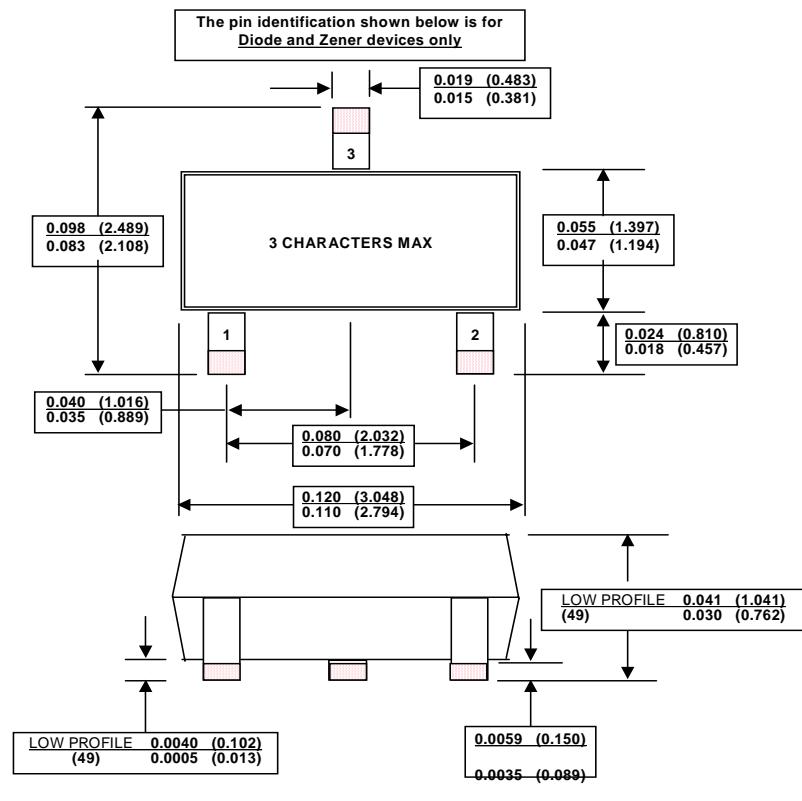
Electrical Characteristics

$T_C = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Conditions	Min.	Max.	Units
V_Z	Zener Voltage	$I_{ZT} = 20\text{mA}_{\text{D.C}}$ $I_{ZT} = 20\text{mA}_{\text{Pulse 26mS}}$	5.32 5.31	5.88 5.85	V V
Z_Z	Zener Impedance	$I_{ZT} = 20\text{mA}$		11	Ω
Z_{ZK}	Zener Knee Impedance	$I_{ZK} = 250\mu\text{A}$		1600	Ω
I_R	Reverse Leakage	$V_R = 3\text{V}$		5	μA
V_F	Forward Voltage	$I_F = 10\text{mA}$		900	mV
V_{CL}	Clamping Voltage	$I_{PP}=3\text{A}$ Square wave $T_p=300\mu\text{S}$		8.0	V

Mechanical Dimensions

SOT-23



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