

MMBZ5V6B

24 Watt Peak Power Zener Transient Voltage Suppressor

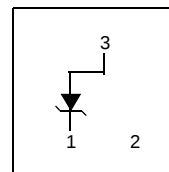
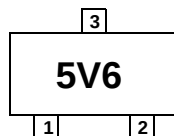
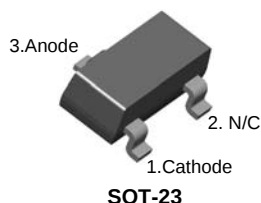
Applications

- 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°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/°C
P _{pk}	Peak Power Dissipation @1.0mS	27	W
T _{STG}	Storage Temperature	-55 to +150	°C
T _J	Operating Junction Temperature	+150	°C
R _{θJA}	Thermal Resistance Junction to Ambient, FR-5 Board	550	°C/W

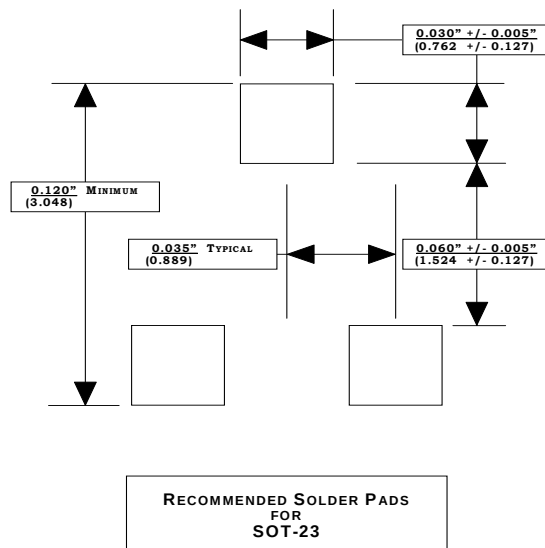
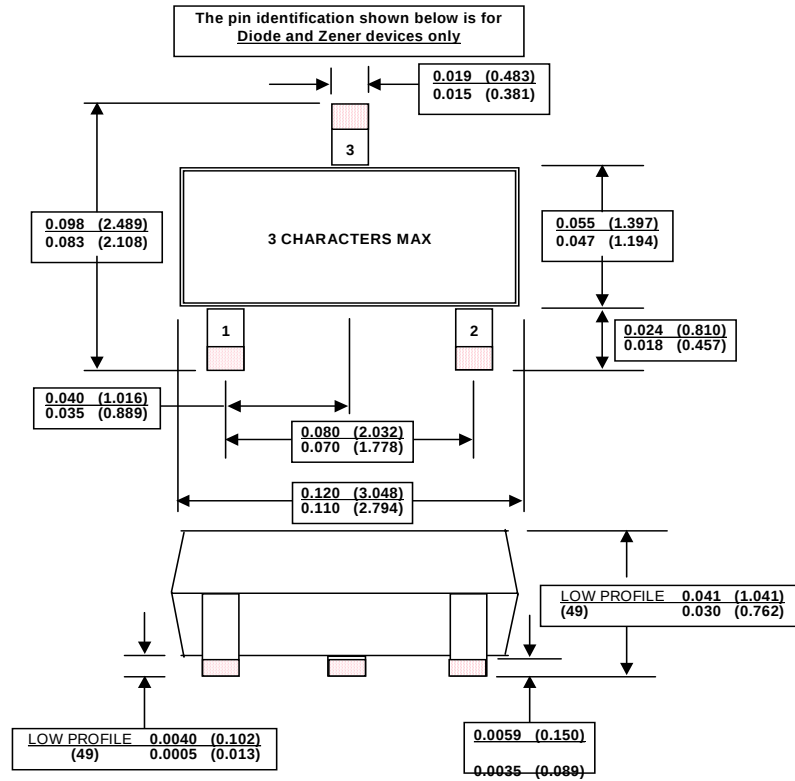
* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Electrical Characteristics T_C = 25°C unless otherwise noted

Symbol	Parameter	Conditions	Min.	Max.	Units
V _Z	Zener Voltage	I _{ZT} = 20mA _{D.C} I _{ZT} = 20mA _{Pulse} 26mS	5.32 5.31	5.88 5.85	V V
Z _Z	Zener Impedance	I _{ZT} = 20mA		11	Ω
Z _{ZK}	Zener Knee Impedance	I _{ZK} = 250μA		1600	Ω
I _R	Reverse Leakage	V _R = 3V		5	μA
V _F	Forward Voltage	I _F = 10mA		900	mV
V _{CL}	Clamping Voltage	I _{PP} =3A Square wave T _p =300uS		8.0	V

Mechanical Dimensions

SOT-23





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Rev. I23



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