SZMMBZ6V2ALT1G

Common Anode Zeners for ESD Protection

Description

The dual monolithic silicon Zener diodes are designed for applications requiring transient over voltage protection capability. They are intended for use in voltage and ESD sensitive equipment such as computers,printers, business machines, communication systems, medical equipment and other applications. Their dual junction common anode design protects two separate lines using only one package. These devices ideal for situations where board space is at a premium.

Features

- SOT-23 package allows either two separate unidirectional configurations or a single bidirectional configuration.
- Working peak reverse voltage 3.0V
- Standard Zener breakdown voltage 5.1V to 33V
- Peak power 24 Watts
- ESD Rating:
  Class 3B (>16kV) per the Human Body Model
  Class C (>400V) per Machine Model
- ESD Rating of IEC61000-4-2 level 4
- Low leakage < 5.0μA

Machanical Data

- SOT-23 package
- Flammability Rating: UL 94V-0
- Packaging: Tape and Reel
- High temperature soldering guaranted:260°C/ 10 s
- Reel size: 7 inch

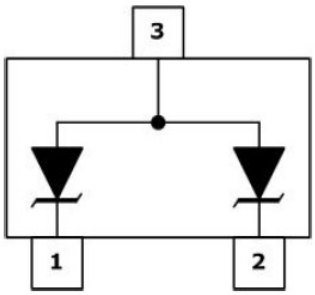
Ordering Information

- Device: SZMMBZ6V2ALT1G
- Package: SOT-23
- Material: RoHS compliant
- Packing: Tape & Reel
- Quantity per reel: 3,000pcs

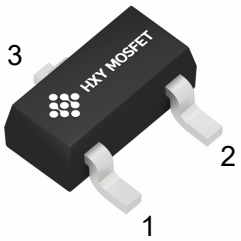
Applications

- Computers
- Printers
- Business Machines
- Communication systems
- Medical equipment

Pin Configuration



Package Outline



Absolute Maximum Rating

Symbol	Parameter	Value	Units
P_{PK}	Peak Power Dissipation	24	W
T_{OPT}	Operating Temperature	-55~150	°C
T_{STG}	Storage Temperature	-55~150	°C
P_D	Total Power Dissipation	200	mW

Electrial Characteristics (Tamb=25°C)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				3.00	V
V_{BR}	Reverse Breakdown Voltage	I_T = 1mA	5.89	6.20	6.51	V
I_R	Reverse Leakage Current	V_{RWM} = 3V			0.5	uA
V_C	Clamping Voltage	I_{PP} =2.76A, t_p = 8/20μs			8.7	V

V_F=0.9V Max @ I_F=10mA

Electrial Characteristics Curve

Fig 1 8/20μs Waveform per IEC61000-4-5

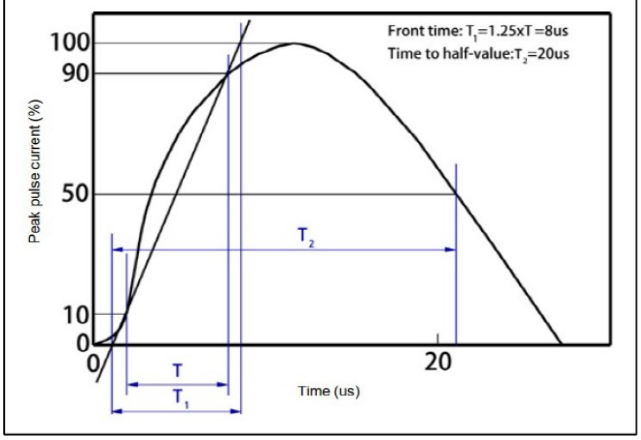
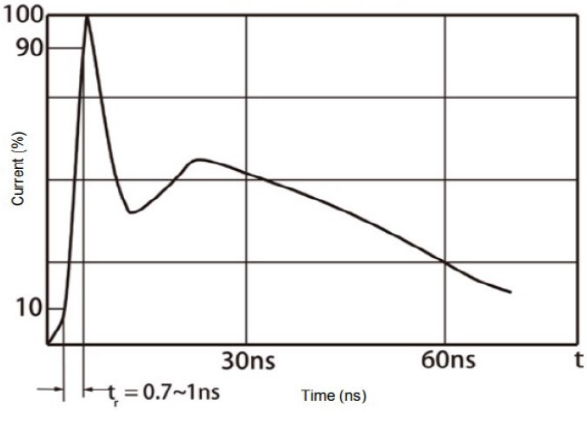
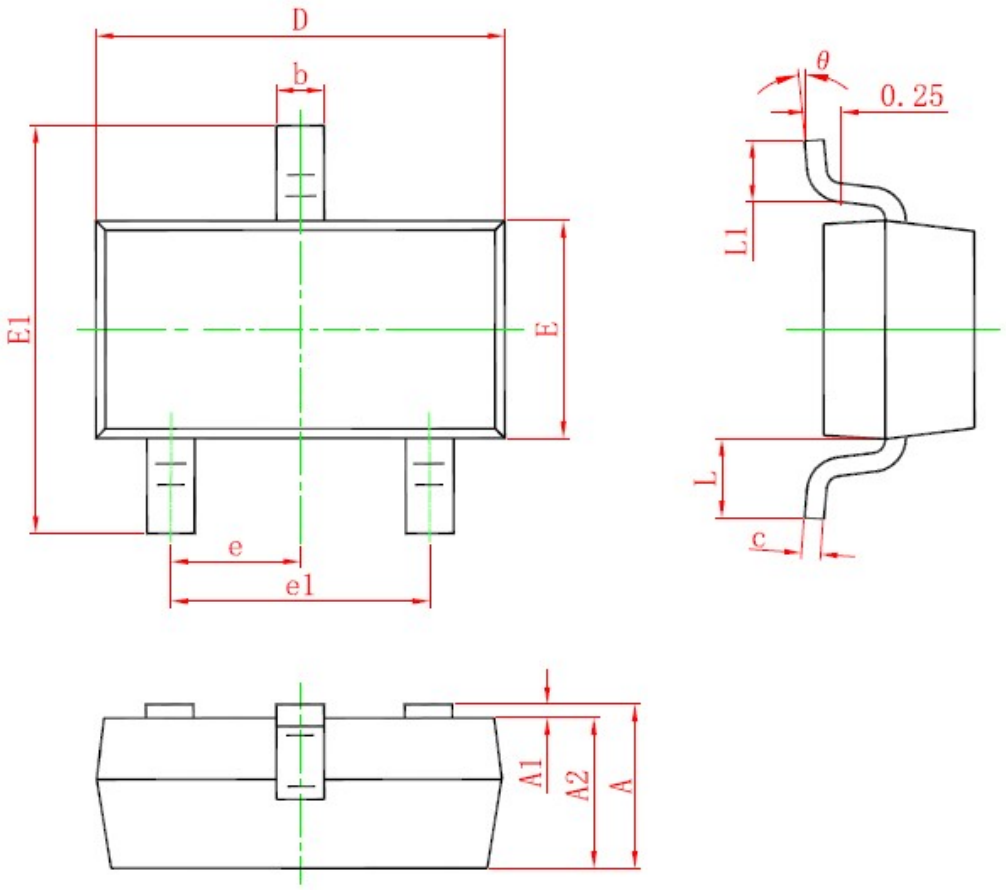


Fig 2 Contact Discharge Current Waveform per IEC 61000-4-2)



Outline And Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP.		0.037 TYP.	
e1	1.800	2.000	0.071	0.079
L	0.550 REF.		0.022 REF.	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

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