SZESD5Z2.5T1G

Transient Voltage Suppressors

Description

The SZESD5Z2.5T1G is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time, make these parts ideal for ESD protection on designs where board space is at a premium. Because of its small size, it is suited for use in cellular phones, portable devices, digital cameras, power supplies and many other portable applications.

Features

- IEC61000-4-2 Level 4 ESD Protection
- Protects one directional I/O line
- Low clamping voltage
- Working voltage : 2.5V
- Low leakage current

Machanical Data

- SOD-523 packag e
- Flammability Rating: UL 94V-0
- Packaging: Tape and Reel
- High temperature soldering guaranted:260℃/10s
- Reel size: 7 inch

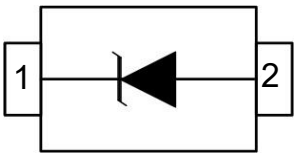
Ordering Information

- Device: SZESD5Z2.5T1G
- Package: SOD-523
- Material: Halogen free
- Packing: Tape & Reel
- Quantity per reel: 3,000pcs

Applications

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and
- Servers Portable Instrumentation
- Peripherals
- Pagers

Pin Configuration



Package Outline



Absolute Maximum Rating

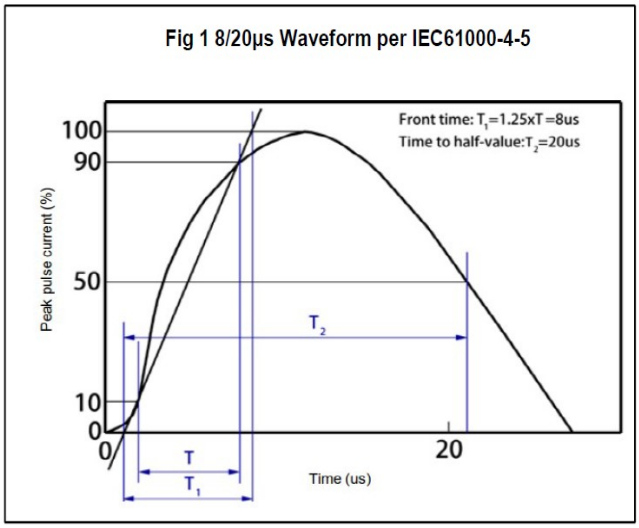
Symbol	Parameter	Value	Units
V_{ESD}	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	±30 ±22	kV
ESD	ESD Voltage per human body model ESD Voltage per machine model	16 400	kV V
P_D	Total Power Dissipation on FR-5 Board (Note 1) @ Ta=25°C	150	mW
T_J, T_{STG}	Junction and Storage Temperature	-55/+150	°C
T_L	Lead Solder Temperature – Maximum (10 Second Duration)	260	°C

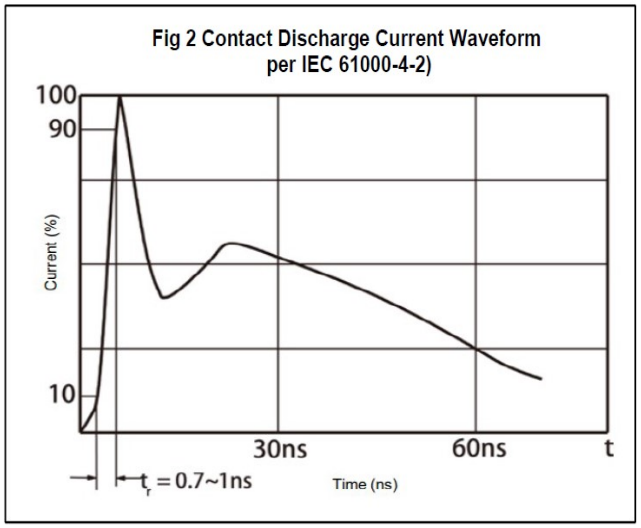
These ratings are limiting values above which the serviceability of the diode may be impaired Note 1. FR-5=1.0x0.75x0.62 in.

Electrial Characteristics (Tamb=25°C)

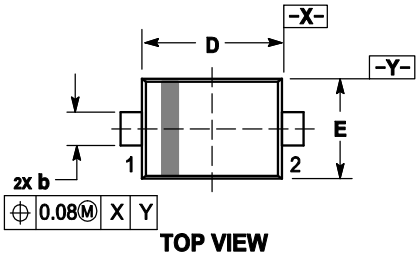
Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				2.5	V
P_{PK}	Peak Power Dissipation				104	W
V_{BR}	Reverse Breakdown Voltage	I_T = 1mA	4.0			V
I_R	Reverse Leakage Current	V_{RWM} = 2.5V			6.0	μA
V_C	Clamping Voltage	I_{PP} = 5A, t_p = 8/20μs			9.0	V
		I_{PP} = 9A, t_p = 8/20μs			11.5	V
C_J	Junction Capacitance	V_R = 0V, f = 1MHz			145	pF

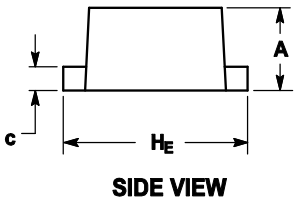
Electrial Characteristics Curve

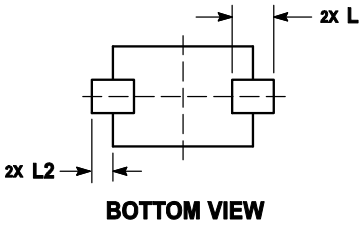




Outline And Dimensions





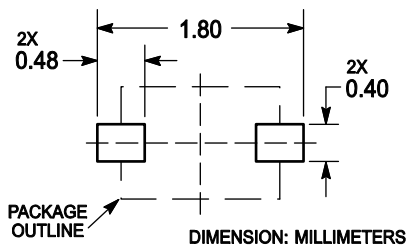


Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.

	MILLIMETERS			INCHES		
DIM	MIN	NOM	MAX	MIN	NOM	MAX
A	0.50	0.60	0.70	0.020	0.024	0.028
b	0.25	0.30	0.35	0.010	0.012	0.014
c	0.07	0.14	0.20	0.003	0.006	0.008
D	1.10	1.20	1.30	0.043	0.047	0.051
E	0.70	0.80	0.90	0.028	0.031	0.035
H_E	1.50	1.60	1.70	0.059	0.063	0.067
L	0.30 REF			0.012 REF		
L_2	0.15	0.20	0.25	0.006	0.008	0.010

Soledering Footprint



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