GESD5Z24

Transient Voltage Suppressors

DESCRIPTION

The GESD5Z24 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 voltages : 24V
- ✧Low leakage current

MACHANICAL DATA

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

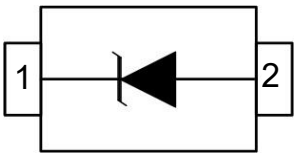
ORDERING INFORMATION

- ✧Device: GESD5Z24
- ✧Package: SOD-523
- ✧Marking: 5S
- ✧Material: Halogen free and RoHS compliant
- ✧Packing: Tape & Reel
- ✧Quantity per reel: 3,000pcs

APPLICATIONS

- ✧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	Unit
V_{ESD}	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	±15 ±8	kV
P_D	Total Power Dissipation on FR-5 Board (Note 1) @ Ta=25°C	150	mW
T_{OPT}	Operating Temperature	-55~125	°C
T_{STG}	Storage Temperature	-55~150	°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.

ELECTRICAL CHARACTERISTICS (Tamb=25°C)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				24	V
V_{BR}	Reverse Breakdown Voltage	I_T = 1mA	26			V
I_R	Reverse Leakage Current	V_{RWM} = 24V			1	μA
V_C	Clamping Voltage	I_{PP} = 1A, t_p = 8/20μs			35	V
C_J	Junction Capacitance	V_R = 0V, f = 1MHz			50	pF

ELECTRICAL CHARACTERISTICS CURVE

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

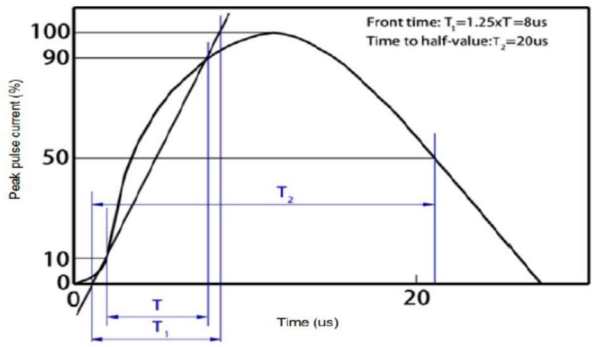


Fig 2 Contact Discharge Current Waveform per IEC 61000-4-2)

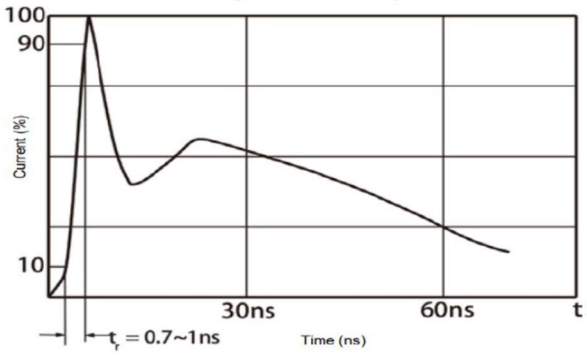


Fig 3 Voltage vs Capacitance

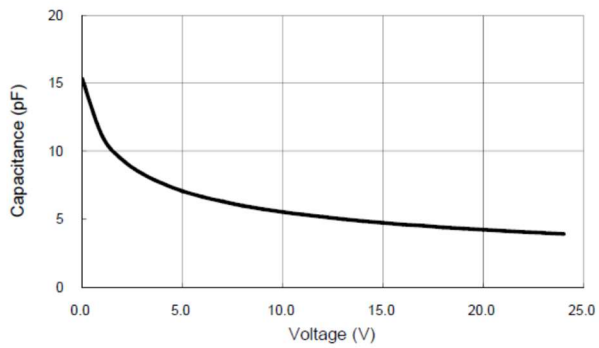
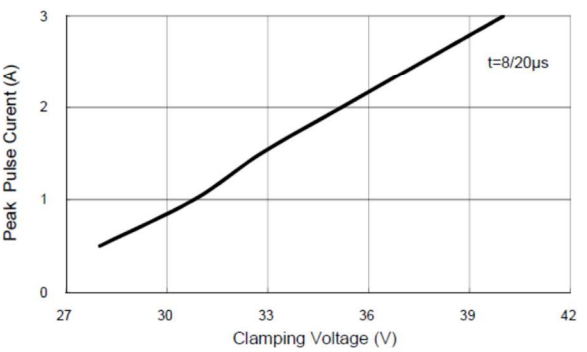
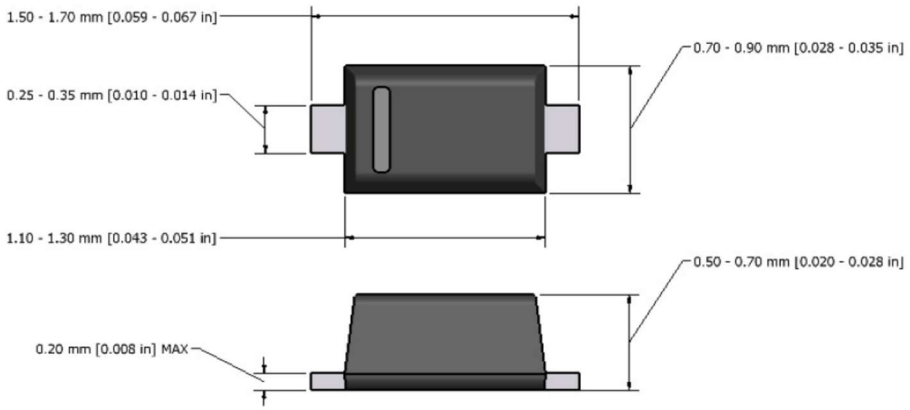


Fig 4 Clamping Voltage vs Peak Pulse Current



SOD-523 PACKAGE OUTLINE DIMENSIONS



Note: Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.