KUU SEMICONDUCTOR

KESD5Z5.0C

Transient Voltage Suppressors for ESD protection

DESCRIPTION

The KESD5Z5.0C a 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.

This device has been specifically designed to protect sensitive components which are connected to data and transmission lines from overvoltage caused by ESD (electrostatic discharge), CDE (Cable Discharge Events), and EFT (electrical fast transients).

FEATURES

- ✧IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- ✧IEC61000-4-4 (EFT) 40A (5/50ηs)
- ✧Peak power dissipation: 75W (8/20μs)
- ✧Protects one I/O line
- ✧Low clamping voltage
- ✧Working voltages : 5V
- ✧Low leakage current

MACHANICAL DATA

- ✧SOD-523 package
- ✧Terminals: Tin plated, solderable per MIL-STD-750, method 2026
- ✧Packaging: Tape and Reel
- ✧Reel size: 7 inch
- ✧MSL3

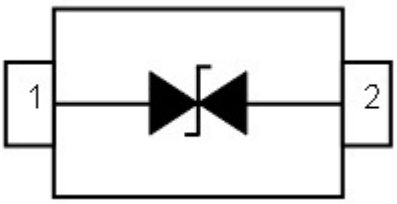
ORDERING INFORMATION

- ✧Package: SOD-523
- ✧Material: Halogen free
- ✧Packing: Tape & Reel
- ✧Quantity per reel: 3,000pcs

APPLICATIONS

- ✧High Speed Line :USB1.0/2.0, VGA, DVI, SDI,
- ✧Serial and Parallel Ports
- ✧Notebooks, Desktops, Servers
- ✧Projection TV
- ✧Cellular handsets and accessories
- ✧Portable instrumentation
- ✧Peripherals

PIN CONFIGURATION



PACKAGE OUTLINE



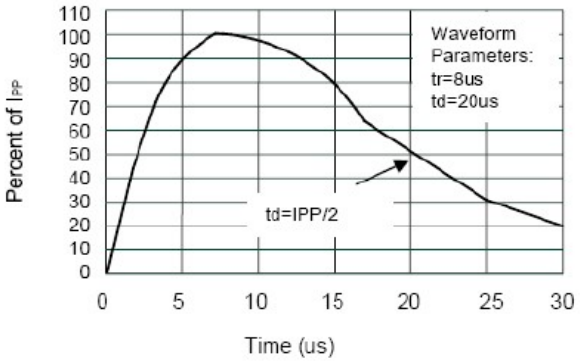
ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Value	Units
V_{ESD}	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	±30 ±30	kV
P_{PP}	Peak Pulse Power (8/20μs)	75	W
T_{OPT}	Operating Temperature	-40~150	°C
T_{STG}	Storage Temperature	-40~150	°C

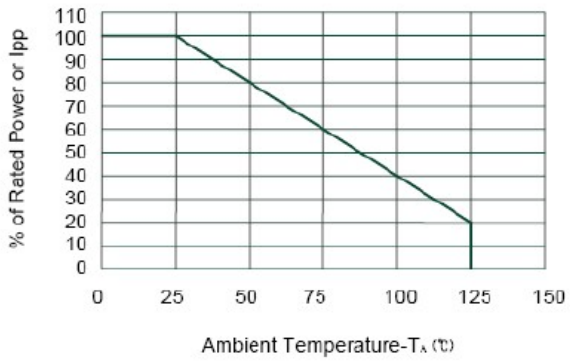
ELECTRICAL CHARACTERISTICS (Tamb=25°C)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				5.0	V
V_{BR}	Reverse Breakdown Voltage	I_T = 1mA	5.6		9.0	V
I_R	Reverse Leakage Current	V_{RWM} = 5V			1.0	μA
V_C	Clamping Voltage	I_{PP} = 1A, t_p = 8/20μs			9.5	V
V_C	Clamping Voltage	I_{PPmax} = 5A , t_p = 8/20μs			15.0	V
C_J	Junction Capacitance	V_R = 0V, f = 1MHz			15	pF

ELECTRICAL CHARACTERISTICS CURVE

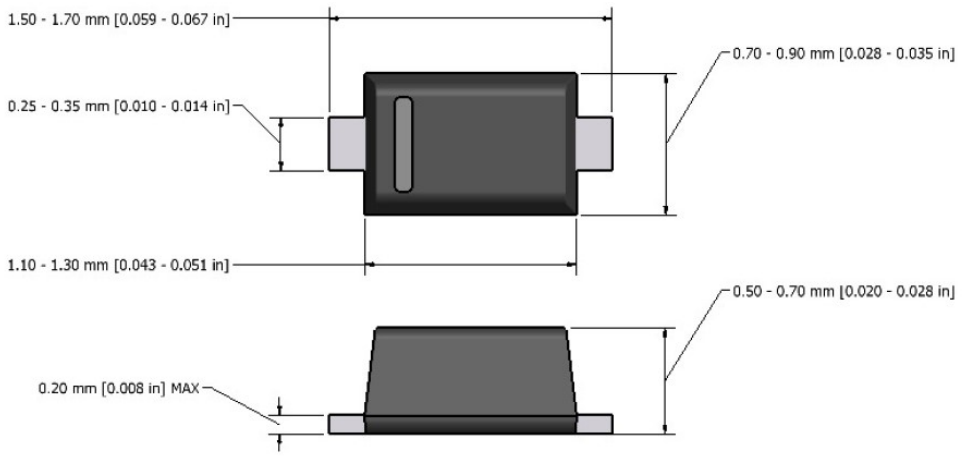


Pulse Waveform



Power Derating Curve

SOD-523 PACKAGE OUTLINE DIMENSIONS



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

Unikeyic Electronics

Global Electronic Components Distributor

Click to view pricing, inventory, delivery, and lifecycle information:

KUU:

ESD05V32D-LC K1N5819HW-7-F KMOV0402E180C030T SD103AWS S4 SMDJ7.0A SMBJ17A SMBJ6.0CA B340A BV03C LSMD050 MBR0540-7-F SJD12C15L01 SMDJ8.5A ESD3V3D523-2U LSMD150 MSMD050/24 SMF15A SMDJ9.0A GBLC15CI WNM4002-3/TR SMDJ7.5CA 1N5819W S4 1N60PW ESD0301BU KNTC0603/10KF3950 PESD12VS1UB SMBJ160CA SMDJ16A MSMD150 SM712.TCT