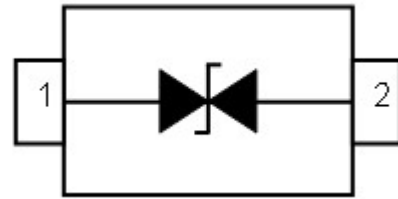


DESCRIPTION

The ESD5Z5.0C 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).



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

FEATURES

- IEC61000-4-2 (ESD) $\pm 30\text{kV}$ (Contact), $\pm 30\text{kV}$ (Air)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- Peak power dissipation: 75W (8/20 μs)
- 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
- Reel size: 7 inch
- MSL3

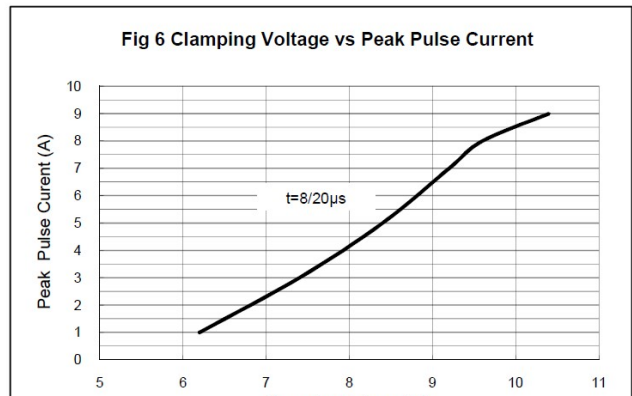
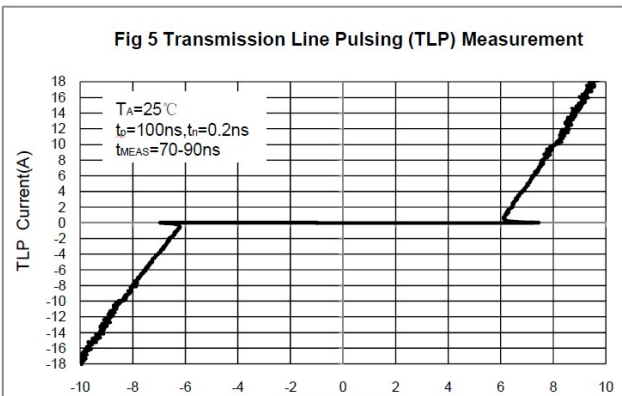
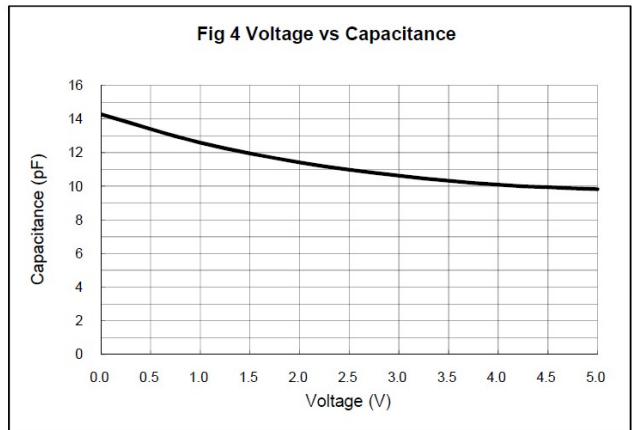
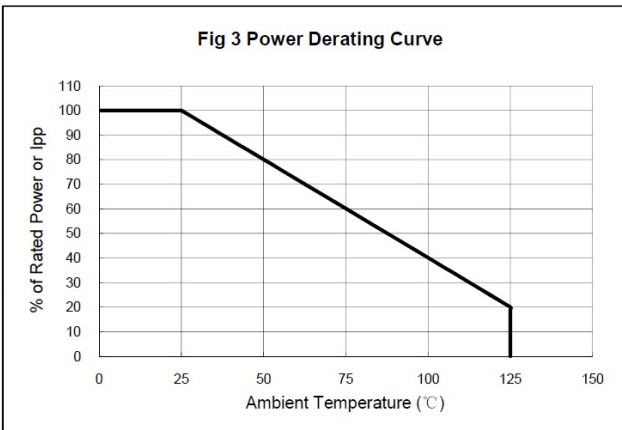
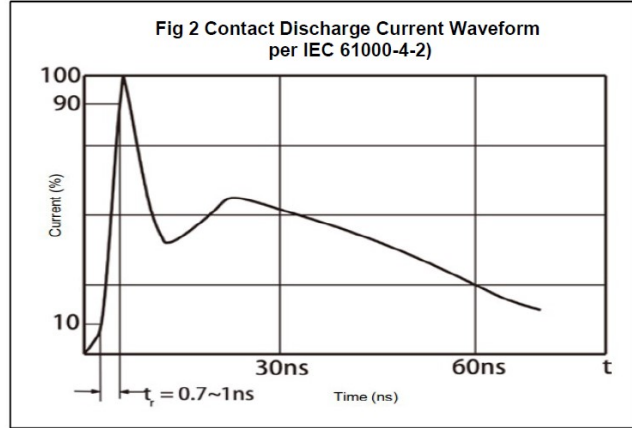
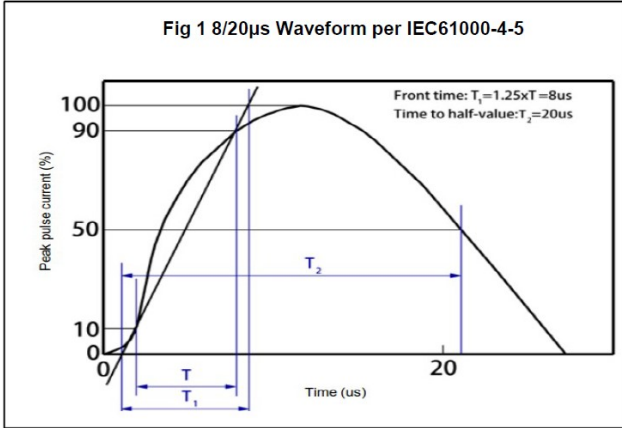
ABSOLUTE MAXIMUM RATING

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

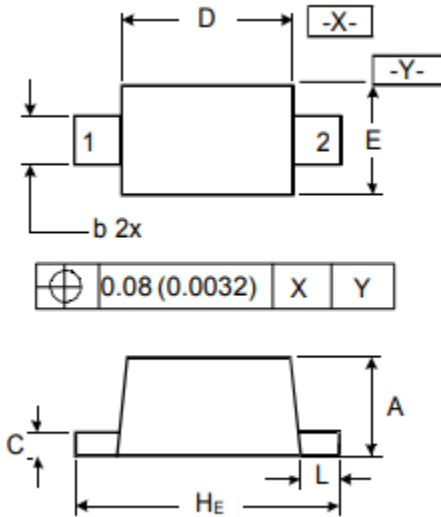
ELECTRICAL CHARACTERISTICS (T_{amb}=25°C)

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



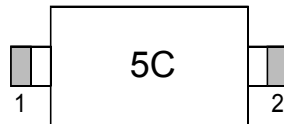
SOD-523 PACKAGE OUTLINE DIMENSIONS



DIMENSIONS

SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	0.50	0.70	0.020	0.028
b	0.25	0.35	0.010	0.014
C	0.07	0.20	0.0028	0.0079
D	1.10	1.30	0.043	0.051
E	0.70	0.90	0.028	0.035
H _E	1.50	1.70	0.059	0.067
L	0.15	0.25	0.006	0.010

Marking



Ordering information

Order code	Package	Base qty	Delivery mode
UMW ESD5Z5.0C	SOD-523	3000	Tape and reel