



ESD3Z6.0C

Description

The ESD3Z6.0C 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).

Features

- IEC61000-4-2(ESD) $\pm 8\text{kV}(\text{contact})$, $\pm 15\text{kV}(\text{air})$
- IEC61000-4-4(EFT) 40A (5/50ns)
- Peak power dissipation: 60W(8/20 μs)
- Protects one I/O line
- Low clamping voltage
- Working voltages: 6V
- Low leakage current

Mechanical Data

- SOD-323 package
- Terminals: Tin plated, solderable per MIL-STD-750, method 2026
- Packaging: Tape and Reel
- Reel size: 7 inch

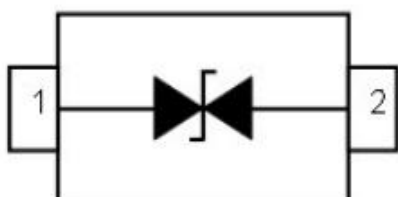
Ordering Information

- Device: ESD3Z6.0C
- Package: SOD-323
- Marking: 3M+Code
- Material: Halogen free
- Packing: Tape & Reel
- Quantity per reel: 3000pcs

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





ESD3Z6.0C

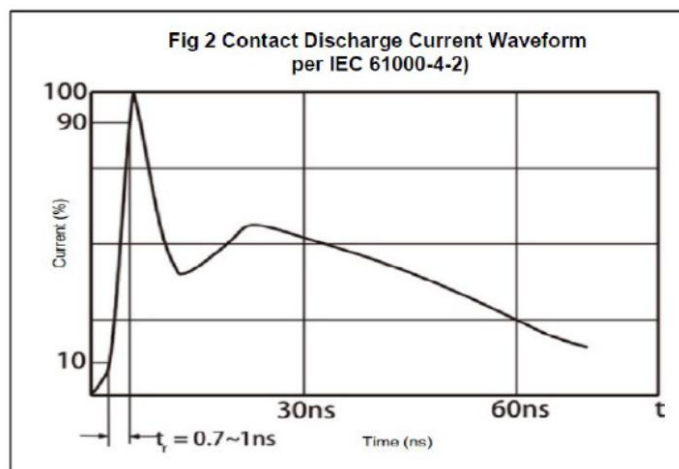
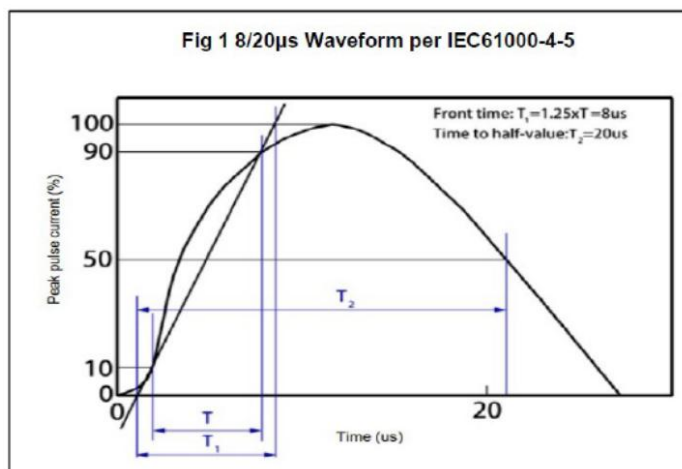
Maximum Rating

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2(Air)	V_{ESD}	± 30	kV
ESD per IEC 61000-4-2(Contact)		± 30	
Peak Pulse Power(8/20 μ s)	P_{PP}	350	W
Operating Temperature	T_{OPT}	-55~+150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55~+150	$^{\circ}\text{C}$

Electrical Characteristics ($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				6.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	6.6		8.0	V
Reverse Leakage Current	I_R	$V_{RWM}=6\text{V}$			0.5	μA
Clamping Voltage	V_C	$I_{PP}=25\text{A}, t_p=8/20\mu\text{s}$			13	V
Junction Capacitance	C_J	$V_R=0\text{V}, f=1\text{MHz}$			100	pF

Typical Characteristics

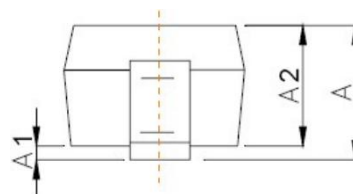
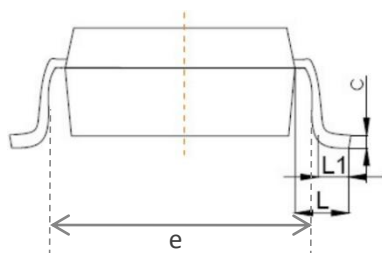
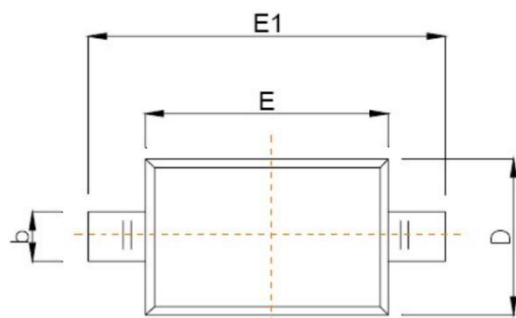




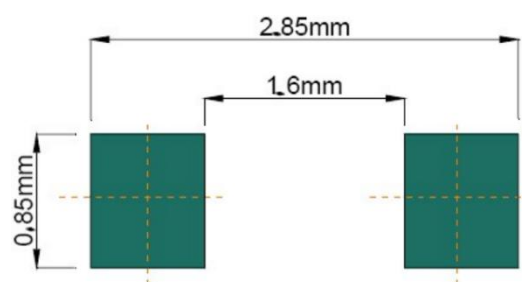
Package Information

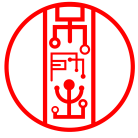
SOD-323

Dimensions in mm



Symbol	Dimensions In Millimeters	
	Min	Max
A	-	1.00
A1	0.000	0.100
A2	0.800	0.900
b	0.250	0.350
c	0.080	0.200
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.700
e	1.800	2.040
L	0.475 REF	
L1	0.250	0.400
θ	0°	8°





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