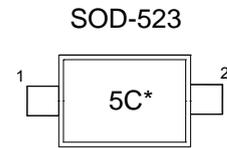
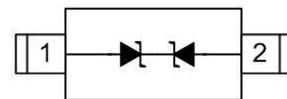


Transient Voltage Suppressors for ESD Protection
Features

- ◇ 70W (8/20 μ s) Peak Pulse Power
- ◇ Low Capacitance ESD Protection
- ◇ SOD-523 Package
- ◇ RoHS Compliant
- ◇ Matte Tin Lead finish (Pb-Free)
- ◇ Protect One High Speed Data Line
- ◇ Meet IEC61000-4-2 Level 4:
 - Contact Discharge > 20kV
 - Air Discharge > 20kV


PIN Diagram

Applications

- ◇ Communication System
- ◇ Portable Instrumentation
- ◇ Audio and Video Equipment
- ◇ Computers and Peripherals
- ◇ USB 1.1, USB 1.0 Ports

Ordering information

Device	Package	Reel Size	Qty / Reel
ESD5Z5.0C	SOD-523	7 inch	3000

Maximum Ratings (Ta = 25°C)

Symbol	Parameter	Value	Unit
PPK	Peak Pulse Power	70	W
IPP	Peak Pulse Current	5	A
VESD (Contact)	Contact ESD Voltage per IEC61000-4-2	20	kV
VESD (Air)	Air ESD Voltage per IEC61000-4-2	20	kV
TJ	Junction Temperature	-55 to +150	°C
TSTG	Storage Temperature	-55 to +150	°C

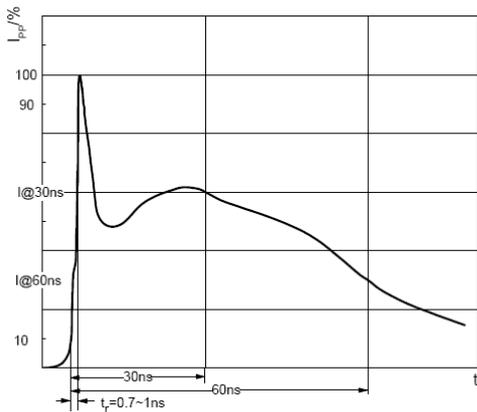
ESD standards compliance

IEC61000-4-2 Standard

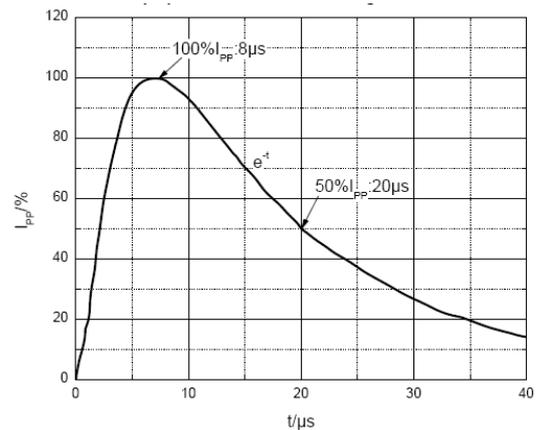
Contact Discharge		Air Discharge	
Level	Test Voltage kV	Level	Test Voltage kV
1	2	1	2
2	4	2	4
3	6	3	8
4	8	4	15

JESD22-A114-B Standard

ESD Class	Human Body Discharge V
0	0~249
1A	250~499
1B	500~999
1C	1000~1999
2	2000~3999
3A	4000~7999
3B	8000~15999



ESD pulse waveform according to IEC61000-4-2

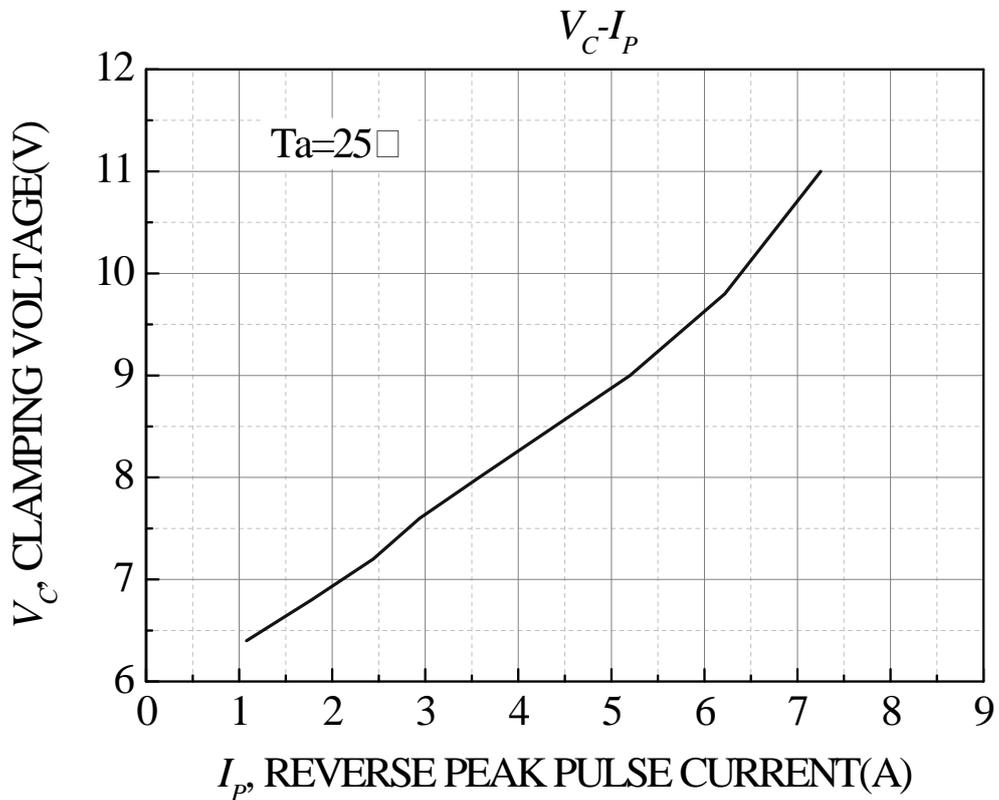
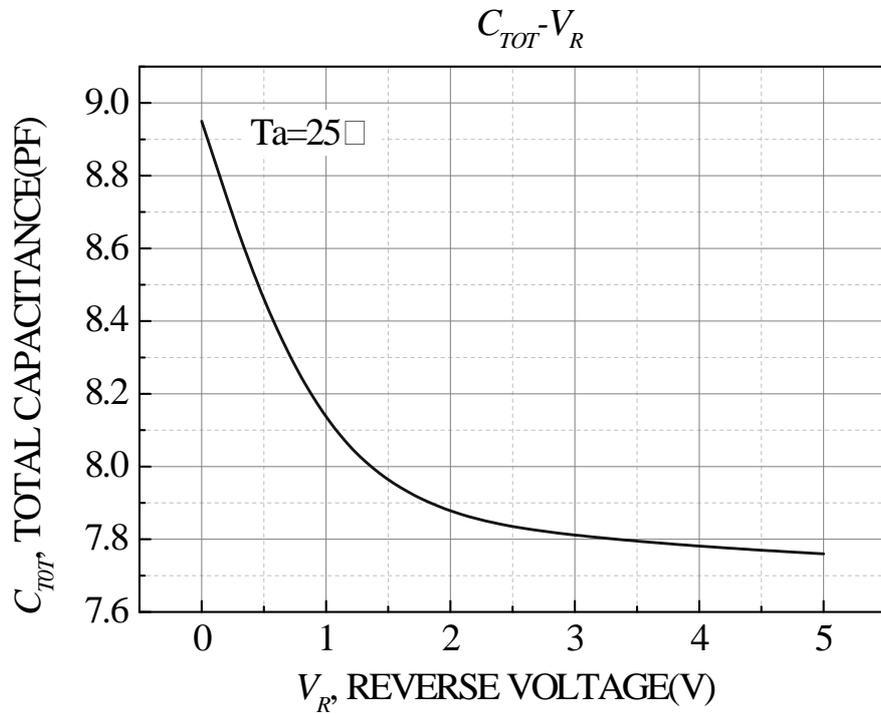


8/20µs pulse waveform according to IEC 61000-4-5

Electrical Characteristics (Ta = 25°C)

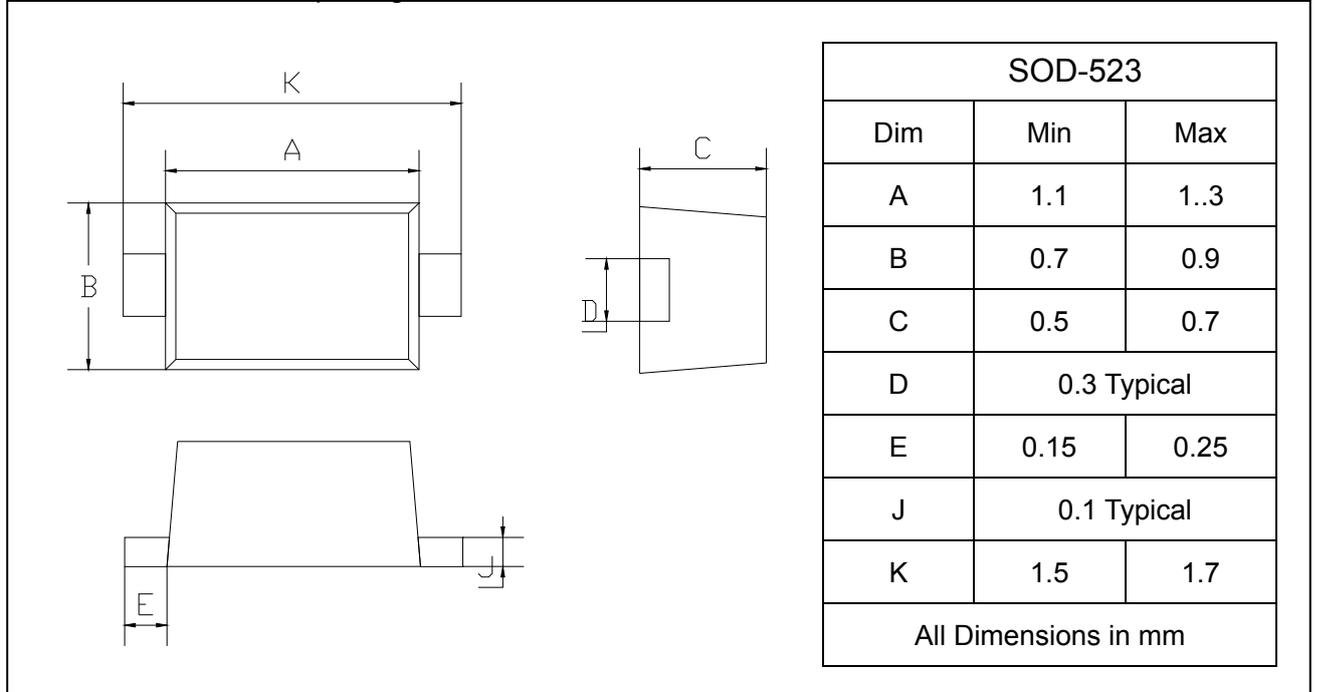
Symbol	Parameter	Conditions	Min	Typ	Max	Unit
VRWM	Reverse Working Peak Voltage				5	V
VBR	Reverse Breakdown Voltage	IT = 1mA	5.7		9	V
IR	Reverse Leakage Current	VRWM = 5V			0.1	µA
VC	Clamping Voltage	IPP = 4.5A (8/20µs)			12	V
VC	Clamping Voltage	IPP = 5A (8/20 µs)			13	V
CJ	Capacitance	VR = 0V, f = 1MHz			13	pF

TYPICAL CHARACTERISTICS



Plastic surface mounted package

SOD-523



SOLDERING FOOTPRINT

