

Features

- ◇ 100W (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:

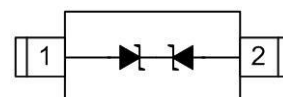
Contact Discharge > 20kV

Air Discharge > 20kV

SOD-523



PIN Diagram



Applications

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

Maximum Ratings (Ta = 25°C)

Symbol	Parameter	Value	Unit
PPK	Peak Pulse Power	100	W
IPP	Peak Pulse Current	4	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

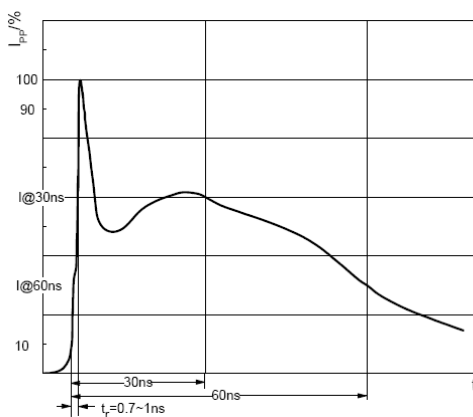
ESD standards compliance

IEC61000-4-2 Standard

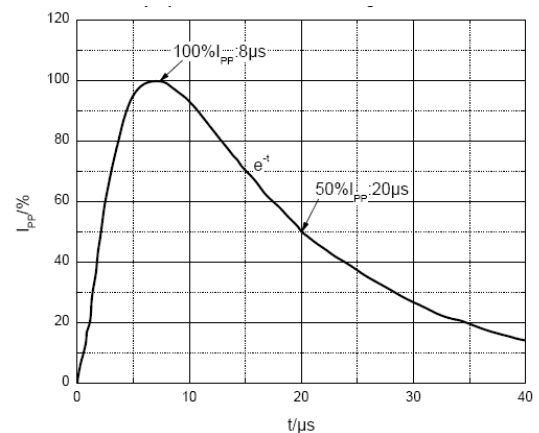
Contact Discharge		Air Discharge	
Level	Test Voltage kV	Level	Test Voltage kV
1	2	1	2
2	4	2	4
3	6	3	8
4	8	4	15

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



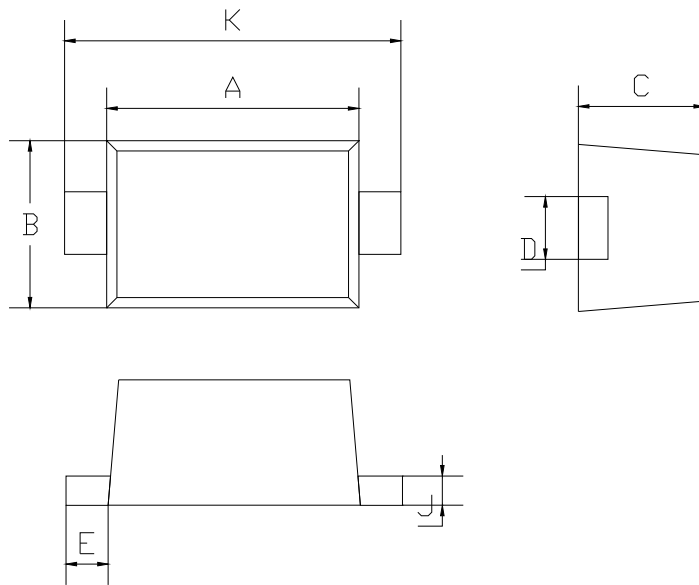
8/20µs pulse waveform according to IEC 61000-4-5

Electrical Characteristics (Ta = 25℃)

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
VRWM	Reverse Working Peak Voltage				8	V
VBR	Reverse Breakdown Voltage	IT = 1mA	8.2		14	V
IR	Reverse Leakage Current	VRWM = 7V			1	µA
VC	Clamping Voltage	IPP = 1A (8/20 µs)			20	V
VC	Clamping Voltage	IPP = 4A (8/20 µs)			30	V
CJ	Capacitance	VR = 0V, f = 1MHz		30		pF

Plastic surface mounted package

SOD-523



SOD-523		
Dim	Min	Max
A	1.1	1.3
B	0.7	0.9
C	0.5	0.7
D	0.3 Typical	
E	0.15	0.25
J	0.1 Typical	
K	1.5	1.7
All Dimensions in mm		

SOLDERING FOOTPRINT

