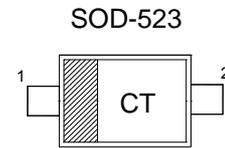


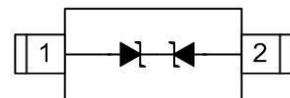
## Transient Voltage Suppressors for ESD Protection

## Features

- ◇ 60W (8/20  $\mu$ 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 > 25kV
  - Air Discharge > 25kV



## PIN Diagram



## Applications

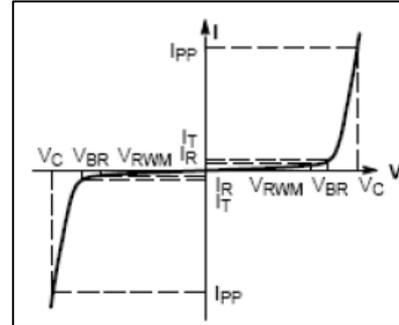
- ◇ Communication System
- ◇ Portable Instrumentation
- ◇ Audio and Video Equipment
- ◇ Computers and Peripherals
- ◇ USB 1.1, USB 1.0 Ports

## Maximum Ratings (Ta = 25 °C)

Symbol	Parameter	Value	Unit
PPK	Peak Pulse Power	60	W
IPP	Peak Pulse Current	5	A
VESD (Contact)	Contact ESD Voltage per IEC61000-4-2	25	kV
VESD (Air)	Air ESD Voltage per IEC61000-4-2	25	kV
TJ	Junction Temperature	-55 to +150	°C
TSTG	Storage Temperature	-55 to +150	°C

## ELECTRICAL PARAMETER

Symbol	Parameter
$V_C$	Clamping Voltage @ $I_{PP}$
$I_{PP}$	Peak Pulse Current
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_R$	Reverse Leakage Current @ $V_{RWM}$
$V_{RWM}$	Reverse Standoff Voltage

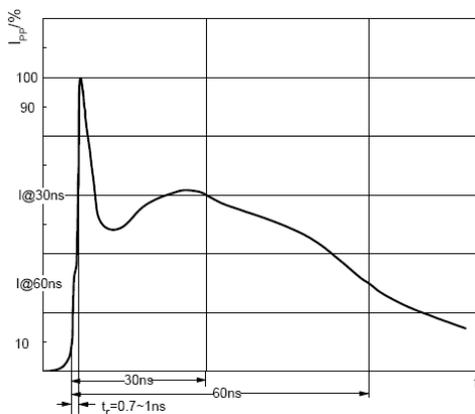


V-I characteristics for a Bi-directional TVS

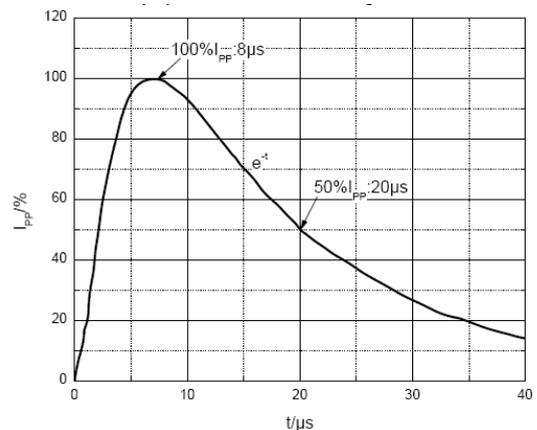
## Electrical Characteristics (Ta = 25°C)

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
$V_{RWM}$	Reverse Working Peak Voltage				3.3	V
$V_{BR}$	Reverse Breakdown Voltage	$I_T = 1\text{mA}$	4		6.3	V
$I_R$	Reverse Leakage Current	$V_{RWM} = 3.3\text{V}$			1	$\mu\text{A}$
$V_C$	Clamping Voltage	$I_{PP} = 4.5\text{A} (8/20\mu\text{s})$			15	V
$V_C$	Clamping Voltage	$I_{PP} = 5\text{A} (8/20\mu\text{s})$			16	V
$C_J$	Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$		9.6	15	pF

## ESD standards compliance



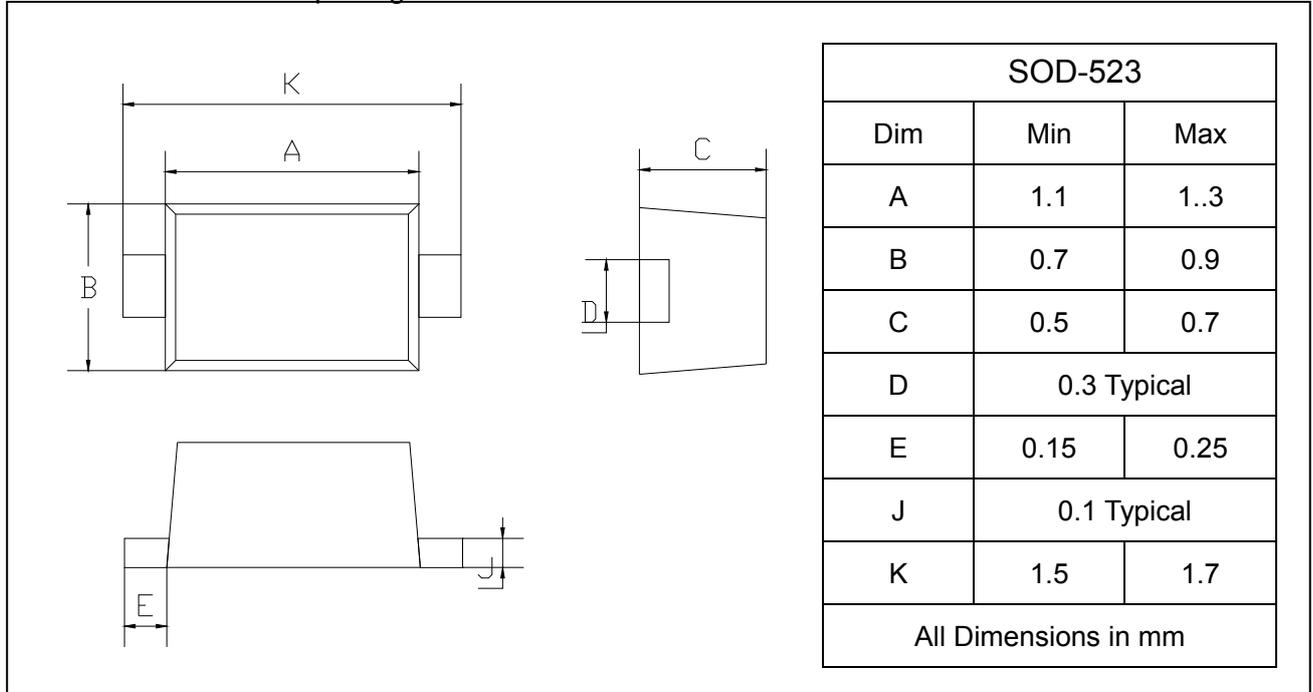
ESD pulse waveform according to IEC61000-4-2



8/20 $\mu\text{s}$  pulse waveform according to IEC 61000-4-5

Plastic surface mounted package

SOD-523



**SOLDERING FOOTPRINT**

