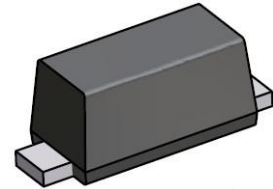


## SOD-523 SURFACE MOUNT Very Small Outline Flat Lead Plastic Package Transient Voltage Suppressors ESD Protection Diodes

Green Product



SOD-523 Flat Lead



ELECTRICAL SYMBOL

### Absolute Maximum Ratings T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V <sub>pp</sub>	IEC61000-4-2(ESD) Air Contact	± 15 ± 8	KV
ESD	Per Human Body Model	16	KV
P <sub>d</sub>	Power Dissipation (Note 1)	150	mW
T <sub>stg</sub>	Storage Temperature Range	-55 to +150	°C
T <sub>J</sub>	Operating Junction Temperature	+150	°C
T <sub>L</sub>	Max Lead Solder Temperature range(10 Second Duration)	260	°C

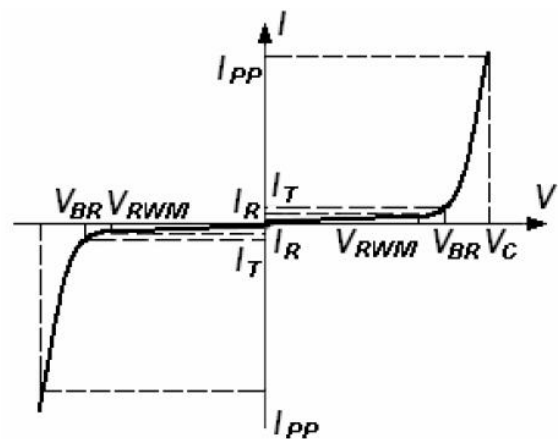
These ratings are limiting values above which the serviceability of the diode may be impaired. Note 1. FR-5 = 1.0 x 0.75 x 0.62 in.

### Specification Features:

- Stand-off Voltage: 5V0
- Low Leakage
- Response Time is Typically < 1ns
- IEC61000-4-2 Level 4 ESD Protection
- RoHS Compliant
- Threen EMC
- Matte Tin(Sn) Lead Finish

### Electrical Parameter

Symbol	Parameter
I <sub>PP</sub>	Maximum Reverse Peak Pulse Current
V <sub>C</sub>	Clamping Voltage @ I <sub>PP</sub>
V <sub>RWM</sub>	Working Peak Reverse Voltage
I <sub>R</sub>	Maximum Reverse Leakage Current @ V <sub>RWM</sub>
I <sub>T</sub>	Test Current
V <sub>BR</sub>	Breakdown Voltage @ I <sub>T</sub>



**Electrical Characteristics** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

Device Type	$V_{RWM}$ (Volts)	$I_R @ V_{RWN}$ ( $\mu\text{A}$ )	$V_{BR} @ I_T$ (Note 2) (Volts)		$I_T$ (mA)	$I_{PP+}$ (A)	$V_C @ \text{Max } I_{PP+}$ (Volts)	$P_{PK+}$ (W)	$C @$ $V_R = 0V, f = 1\text{MHz}$ (pF)
	Max	Max	Min	Max		Max	Max	Max	Typ.
ESD5B5.0ST1G	5.0	1	5.6	7.8	1.0	4	12	48	15

+ Surge current waveform per Figure 1.

Note 2:  $V_{BR}$  is measured with a pulse test current  $I_T$  at an ambient temperature of  $25^\circ\text{C}$ .

**SURGE CURRENT WAVEFORM:**

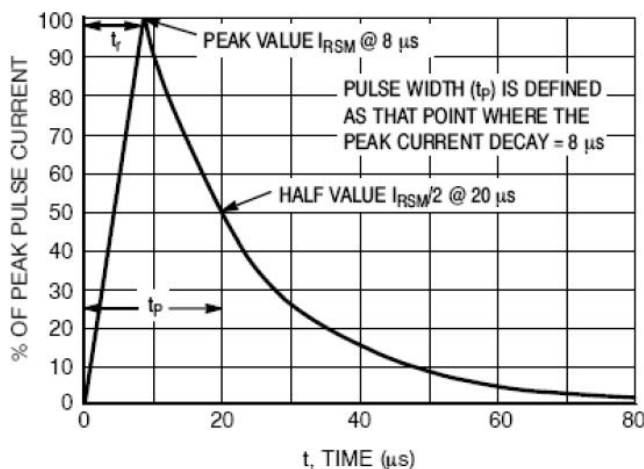
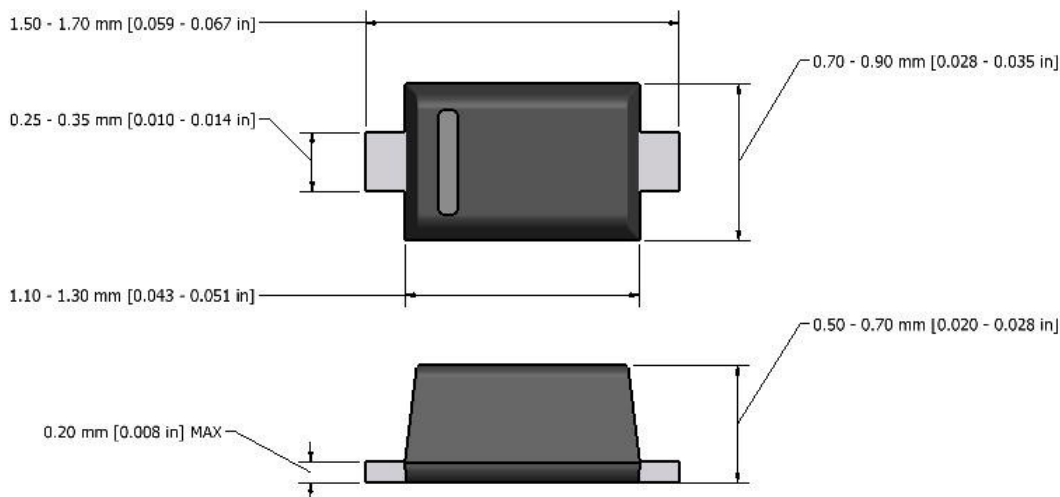


Figure 1. 8 x 20  $\mu\text{s}$  Pulse Waveform

**Flat Lead SOD-523 Package Outline**



**Note:** Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.