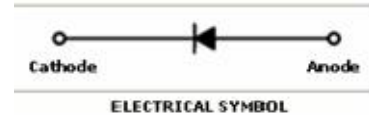


SOD-523 SURFACE MOUNT
Very Small Outline Flat Lead Plastic Package
Transient Voltage Suppressors
ESD Protection Diodes

Green Product



SOD-523 Flat Lead



Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{pp}	IEC61000-4-2(ESD) Air Contact	± 15 ± 8	KV
ESD	Per Human Body Model	16	KV
P_D	Power Dissipation (Note 1)	150	mW
T_{STG}	Storage Temperature Range	-55 to +150	$^\circ\text{C}$
T_J	Operating Junction Temperature	+150	$^\circ\text{C}$
T_L	Max Lead Solder Temperature range(10 Second Duration)	260	$^\circ\text{C}$

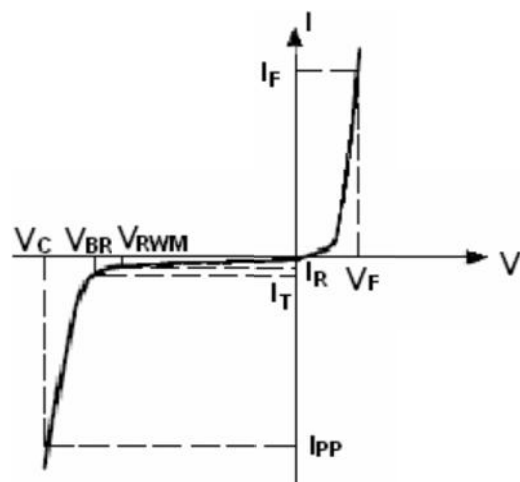
These ratings are limiting values above which the serviceability of the diode may be impaired. Note 1. FR-5 = 1.0 x 0.75 x 0.62 in.

Specification Features:

- Stand-off Voltage: 12V
- Low Leakage
- Response Time is Typically < 1ns
- IEC61000-4-2 Level 4 ESD Protection
- RoHS Compliant
- Threen EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode

Electrical Parameters

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
I_T	Test Current
V_{BR}	Breakdown Voltage @ I_T
I_F	Forward Current
V_F	Forward Voltage @ I_F



Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted, $V_F = 0.9\text{V Max.}$ @ $I_F = 10\text{mA}$ for all types)

Device Type	V_{RWM} (Volts)	$I_R @ V_{RWM}$ (μA)	$V_{BR} @ I_T$ (Note 2) (Volts)	I_T (mA)	I_{PP+} (A)	$V_C @ \text{Max } I_{PP+}$ (Volts)	P_{PK+} (W)	C @ $V_R = 0\text{V}, f = 1\text{MHz}$ (pF)
	Max	Max	Min		Max	Max	Max	Typ.
MSESD08V52D-C	8	1	8.5	1.0	5	30	95	55

+ 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°C .

SURGE CURRENT WAVEFORM:

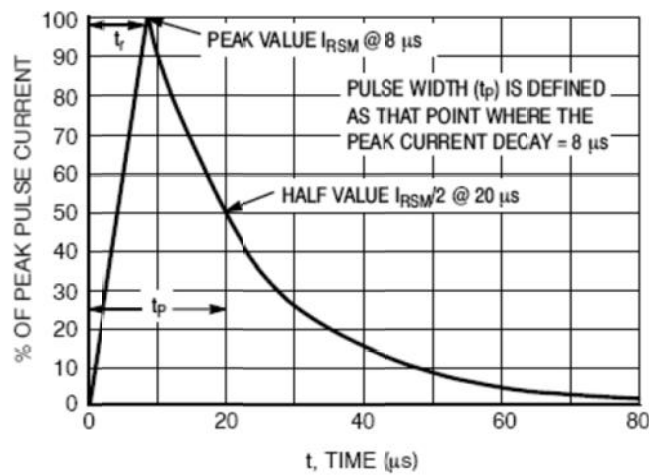
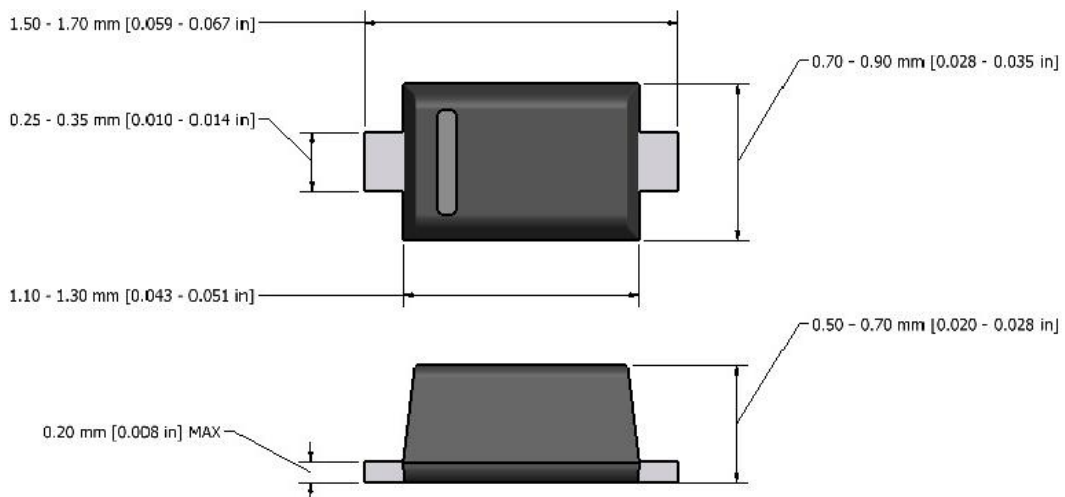


Figure 1. 8 x 20 μs Pulse Waveform

Flat Lead SOD-523 Package Outline



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