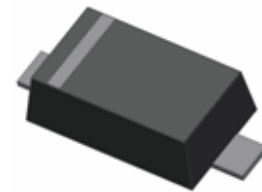
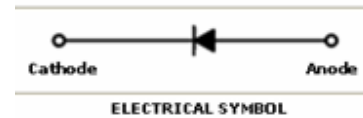


SOD-523 SURFACE MOUNT Very Small Outline Flat Lead Plastic Package Transient Voltage Suppressors ESD Protection Diodes

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	± 30	KV
		± 30	
ESD	Per Human Body Model	16	KV
	Per Machine Model	400	V
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: 3.3V, 5.0V & 7.0V
- Low Leakage
- Response Time is Typically < 1ns
- IEC61000-4-2 Level 4 ESD Protection
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode

DEVICE MARKING CODES:

Device Type	Device Marking
ESD5Z3V3	ZE
ESD5Z5V0	ZF
ESD5Z7V0	ZH

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)	$V_C @ I_{PP+} = 5\text{A}$ (Volts)	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		Typ.	Max	Max	Max	Typ.
ESD5Z3V3	3.3	1	5.0	1.0	8.4	11.2	14.1	158	105
ESD5Z5V0	5.0	1	6.2	1.0	11.6	9.4	18.6	174	80
ESD5Z7V0	7.0	1	7.5	1.0	13.5	8.8	22.7	200	65

+ 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:

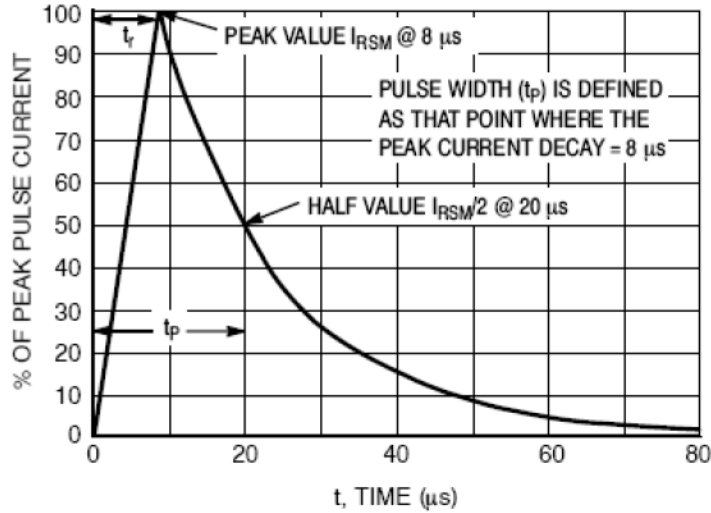
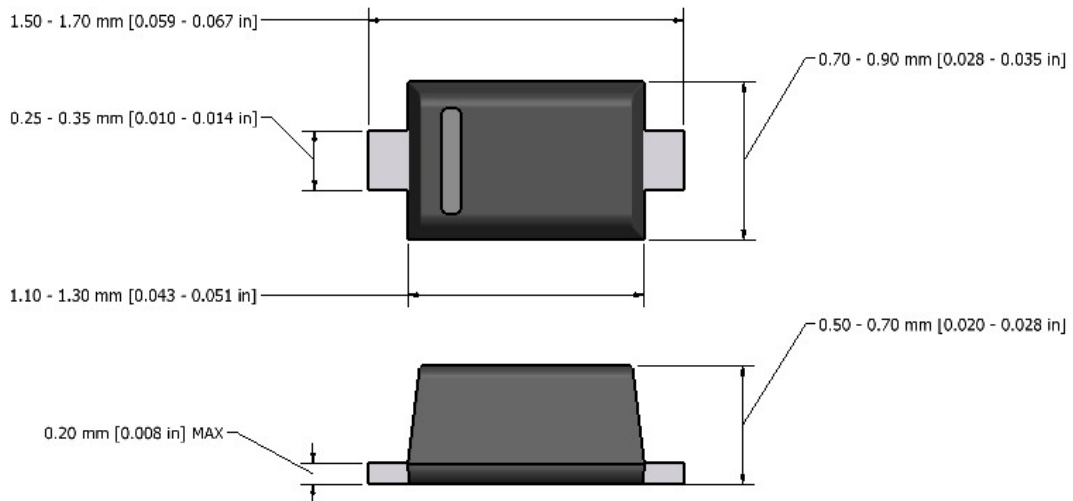


Figure 1. 8 x 20 μs Pulse Waveform

Flat Lead SOD-523 Package Outline



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