

SOD-523 SURFACE MOUNT

Very Small Outline Flat Lead Plastic Package Transient Voltage Suppressors ESD Protection Diodes

SOD-523



Device Marking:5C



SYMBOL

Specification Features:

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

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

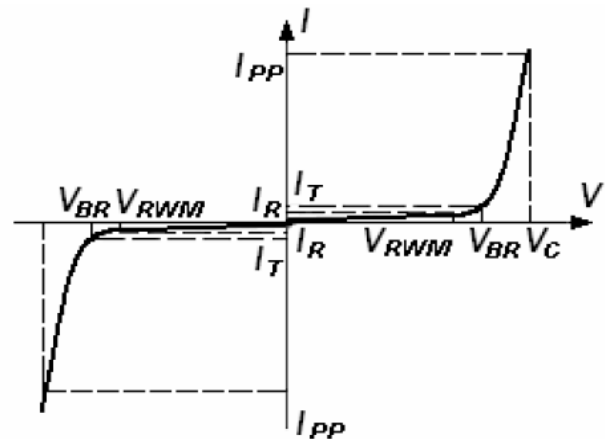
Symbol	Parameter	Value	Units
V_{pp}	IEC61000-4-2(ESD) Air Contact	± 15 ± 8	KV
ESD	Per Human Body Model	16	KV
P_D	Power Dissipation (Note 1)	150	mW
T_{STG}	Storage Temperature Range	-55 to +150	$^\circ\text{C}$
T_J	Operating Junction Temperature	+150	$^\circ\text{C}$
T_L	Max Lead Solder Temperature range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

Electrical Parameter

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



Electrical Characteristics (T_A = 25°C unless otherwise noted)

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 @ Max I _{PP+} (Volts)	P _{PK+} (W)	C @ V _R = 0V, f = 1MHz (pF)
	Max	Max	Min	Max		Max	Max	Max	Max
ESD5Z5.0C	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°C.

SURGE CURRENT WAVEFORM

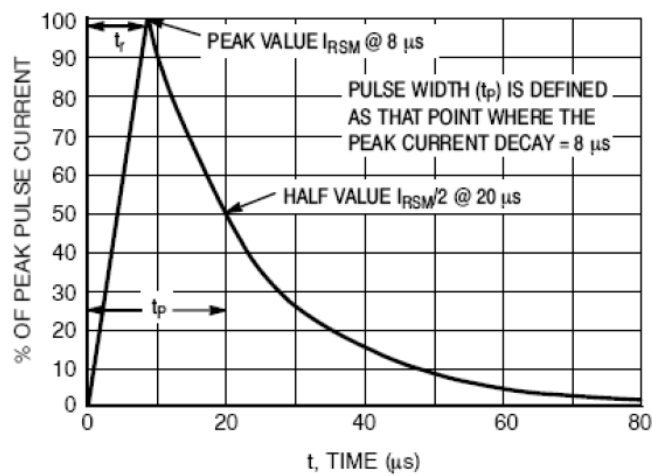
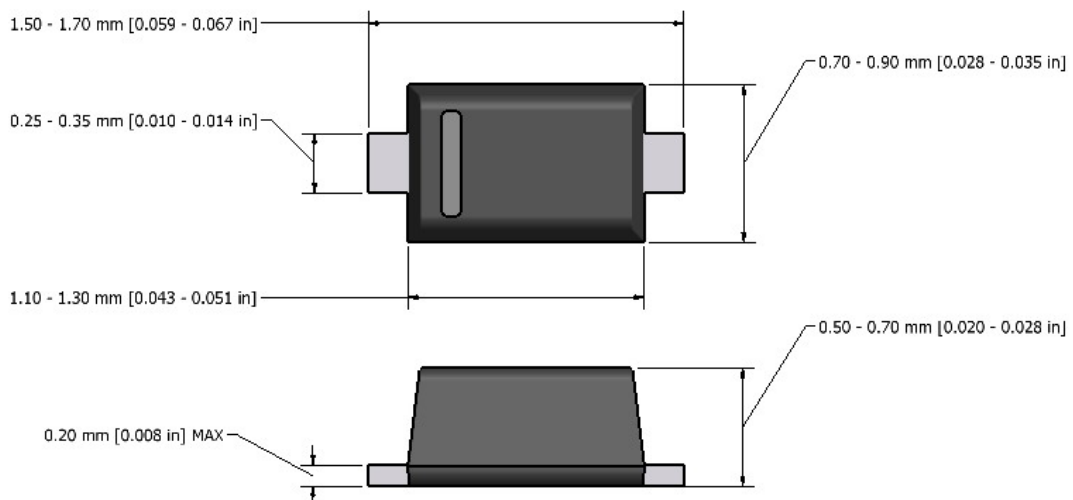


Figure 1. 8 x 20 μs Pulse Waveform

SOD-523 Package Outline



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

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