

# ESD5Z5V0C

## ESD5Z5V0C Transient Voltage Suppressors ESD Protection Diode

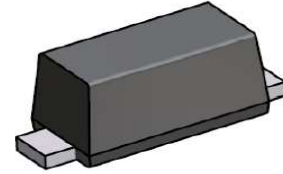
### General description

Silicon Diode in a SOD-523 Plastic Package.

**Green Product**

### FEATURES

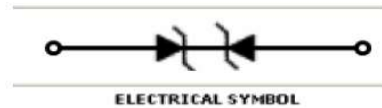
- Stand-off Voltage: 5V
- Low Leakage Current
- Response Time is Typically < 1ns
- IEC61000-4-2 Level 4 ESD Protection
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode



SOD-523 Flat Lead

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

Symbol	Parameter	Value	Units
PD	Total Power Dissipation on FR-5 Board	150	mW
T <sub>L</sub>	Max Lead Solder Temperature range (10 Second Duration)	260	°C
T <sub>stg</sub>	Storage Temperature Range	-55 to +150	°C
T <sub>J</sub>	Junction Temperature	+150	°C
ESD	IEC61000-4-2 Air Discharge Contact Discharge	±15 ±8	KV
ESD	Per Human Body Model	16	KV

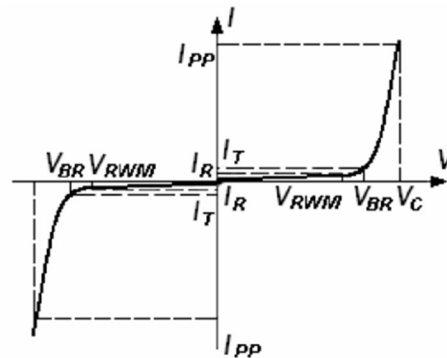


### Device Marking:

Device Type	Marking
ESD5Z5V0C	5C

### 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<sub>A</sub> = 25°C unless otherwise noted)

Device Type	V <sub>RWM</sub> (Volts)	I <sub>R</sub> @ V <sub>RWM</sub> (μA)	V <sub>BR</sub> @ I <sub>T</sub> (Note 2) (Volts)		I <sub>T</sub> (mA)	I <sub>PP+</sub> (A)	V <sub>C</sub> @ Max I <sub>PP+</sub> (Volts)	P <sub>PK+</sub> (W)	C @ V <sub>R</sub> = 0V, f = 1MHz (pF)
	Max	Max	Min	Max			Max		Max
ESD5Z5V0C	5.0	1	5.6	7.8	1.0	4	12	48	15

\* Surge current waveform per Figure 1.

Note 1: V<sub>BR</sub> is measured with a pulse test current I<sub>T</sub> at an ambient temperature of 25°C.

## SURGE CURRENT WAVEFORM:

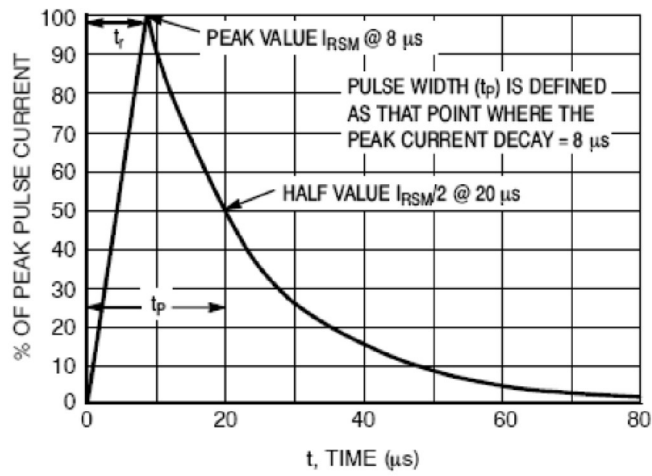
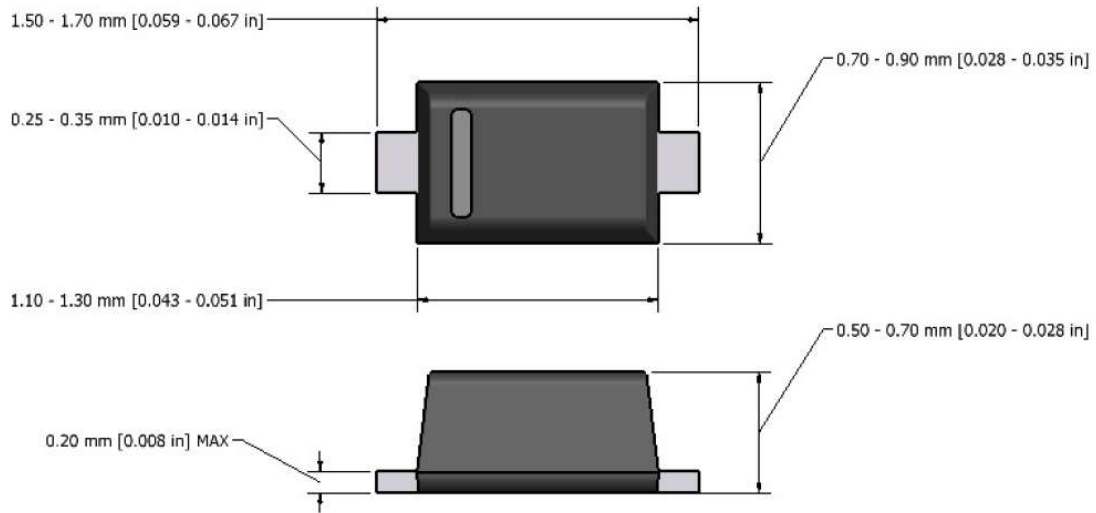


Figure 1. 8 x 20  $\mu\text{s}$  Pulse Waveform

## Flat Lead SOD-523 Package Outline



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

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