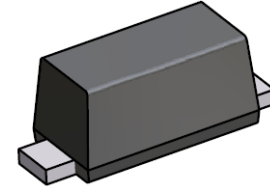


**SOD-523 SURFACE MOUNT**  
**Very Small Outline Flat Lead Plastic Package**  
**Transient Voltage Suppressors**  
**ESD Protection Diodes**

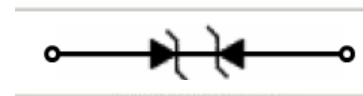
**Absolute Maximum Ratings**  $T_A = 25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Value	Units
$V_{pp}$	IEC61000-4-2(ESD) Air Contact	$\pm 15$ $\pm 8$	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.



SOD-523 Flat Lead



ELECTRICAL 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

**DEVICE MARKING CODES:**

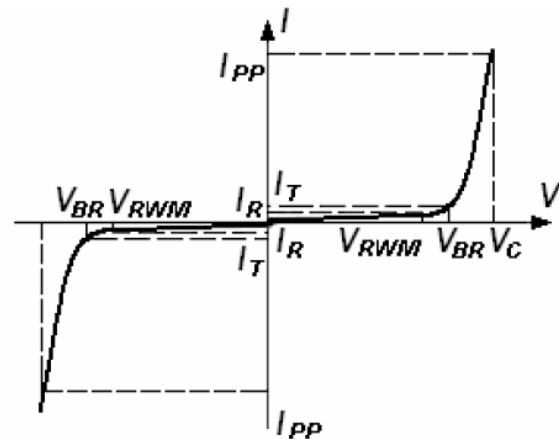
Device Type	Device Marking
ESD5Z5V0C	5C

**Packing SOD-523:**

- Quantity per reel : 3,000pcs

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

Device Type	$V_{RWM}$ (Volts)	$I_R @ V_{RWM}$ ( $\mu\text{A}$ )	$V_{BR} @ I_T$ (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.
ESD5Z5V0C	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  $25^\circ\text{C}$ .

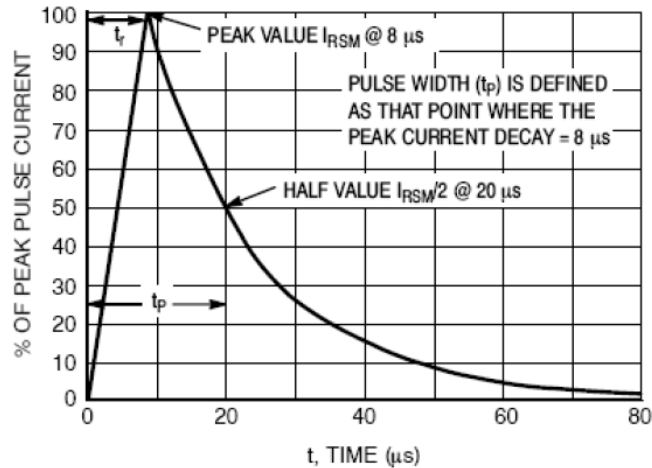
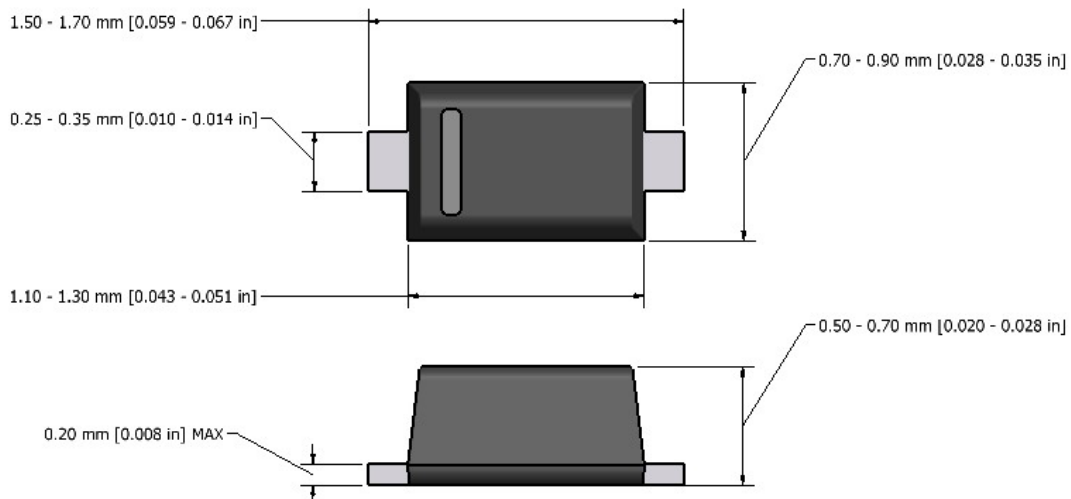
**SURGE CURRENT WAVEFORM:**


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

**Ordering Information**

Device	Package	Shipping
ESD5Z5V0C	SOD523	Tape & Reel 3000pcs

**Flat Lead SOD-523 Package Outline**


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

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