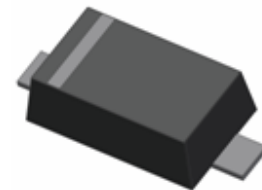
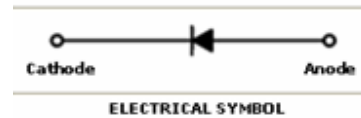


**SOD-523 SURFACE MOUNT**  
**Very Small Outline Flat Lead Plastic Package**  
**Transient Voltage Suppressors**  
**ESD Protection Diodes**

Green Product



SOD-523 Flat Lead



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

Symbol	Parameter	Value	Units
<b>V<sub>pp</sub></b>	IEC61000-4-2(ESD) Air Contact	$\pm 30$	KV
		$\pm 30$	
<b>ESD</b>	Per Human Body Model	16	KV
	Per Machine Model	400	V
<b>P<sub>d</sub></b>	Power Dissipation (Note 1)	150	mW
<b>T<sub>STG</sub></b>	Storage Temperature Range	-55 to +150	°C
<b>T<sub>J</sub></b>	Operating Junction Temperature	+150	°C
<b>T<sub>L</sub></b>	Max Lead Solder Temperature range (10 Second Duration)	260	°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:**

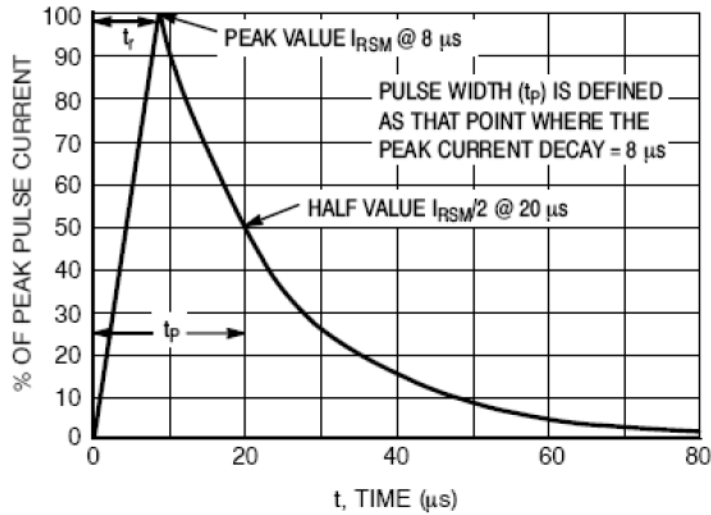
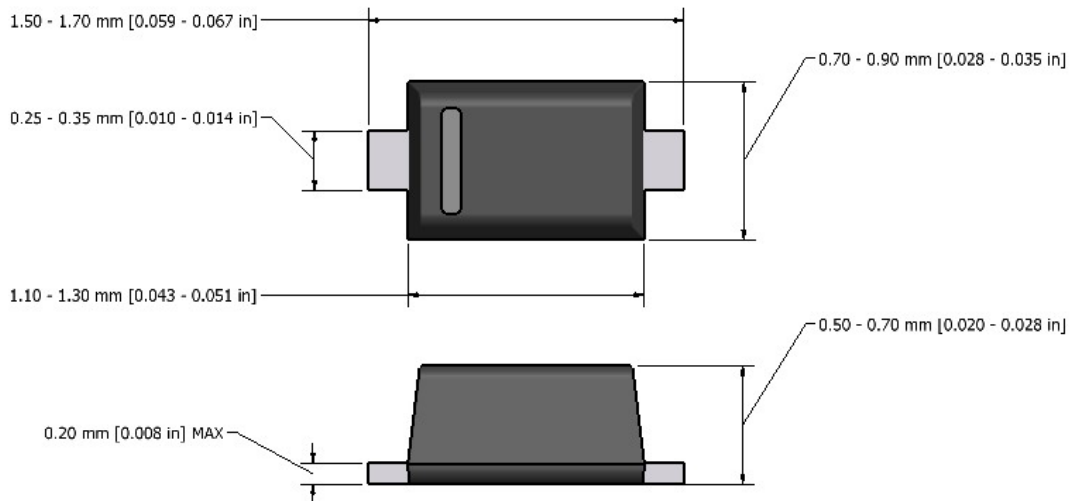
Device Type	Device Marking
ESD5Z3V3	ZE
ESD5Z5V0	ZF
ESD5Z7V0	ZH

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

**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.

## **NOTICE**

The information presented in this document is for reference only. Tak Cheong reserves the right to make changes without notice for the specification of the products displayed herein.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Tak Cheong Semiconductor Co., Ltd., or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <http://www.takcheong.com>, or consult your nearest Tak Cheong's sales office for further assistance.

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [ESD Suppressors / TVS Diodes](#) category:*

*Click to view products by [Tak Cheong](#) manufacturer:*

Other Similar products are found below :

[60KS200C](#) [D18V0L1B2LP-7B](#) [D5V0F4U5P5-7](#) [DESD5V0U1BB-7](#) [NTE4902](#) [P4KE27CA](#) [P6KE11CA](#) [P6KE39CA-TP](#) [P6KE8.2A](#)  
[SA110CA](#) [SA60CA](#) [SA64CA](#) [SMBJ12CATR](#) [SMBJ33CATR](#) [SMBJ8.0A](#) [ESD101-B1-02ELS E6327](#) [ESD105-B1-02EL E6327](#) [ESD112-B1-02EL E6327](#) [ESD119B1W01005E6327XTSA1](#) [ESD5V0L1B02VH6327XTSA1](#) [ESD7451N2T5G](#) [19180-510](#) [CPDT-5V0USP-HF](#)  
[3.0SMCJ33CA-F](#) [3.0SMCJ36A-F](#) [HSPC16701B02TP](#) [D3V3Q1B2DLP3-7](#) [D55V0M1B2WS-7](#) [DESD5V0U1BL-7B](#) [DRTR5V0U4SL-7](#)  
[SCM1293A-04SO](#) [ESD200-B1-CSP0201 E6327](#) [SM12-7](#) [SMF8.0A-TP](#) [SMLJ45CA-TP](#) [CEN955 W/DATA](#) [82350120560](#) [VESD12A1A-](#)  
[HD1-GS08](#) [CPDUR5V0R-HF](#) [CPDQC5V0U-HF](#) [CPDQC5V0USP-HF](#) [CPDQC5V0-HF](#) [D1213A-01LP4-7B](#) [D1213A-02WL-7](#)  
[MMAD1108/TR13](#) [5KP100A](#) [5KP15A](#) [5KP18A](#) [5KP48A](#) [5KP90A](#)