

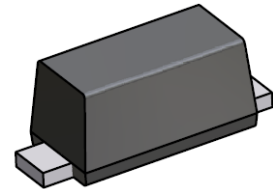
## SOD-523 SURFACE MOUNT

### Very Small Outline Flat Lead Plastic Package

### Transient Voltage Suppressors

### ESD Protection Diodes

Green Product



SOD-523 Flat Lead



ELECTRICAL SYMBOL

#### 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.

#### Specification Features:

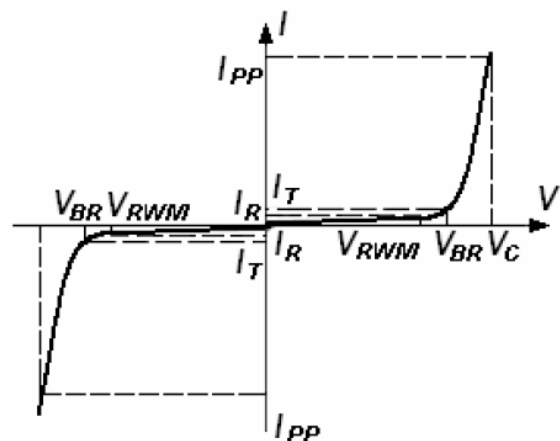
- Stand-off Voltage: 3.3V
- Low Leakage
- Response Time is Typically < 1ns
- IEC61000-4-2 Level 4 ESD Protection
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish

#### ORDERING INFORMATION

Device	MARKING	Package	Shipping
ESD3.3V52D-C	5C	SOD-523	3000PCS

#### 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)	$I_R @ V_{RWN}$ ( $\mu\text{A}$ )	$V_{BR} @ I_T$ (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.
ESD3.3V52D-C	3.3	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:

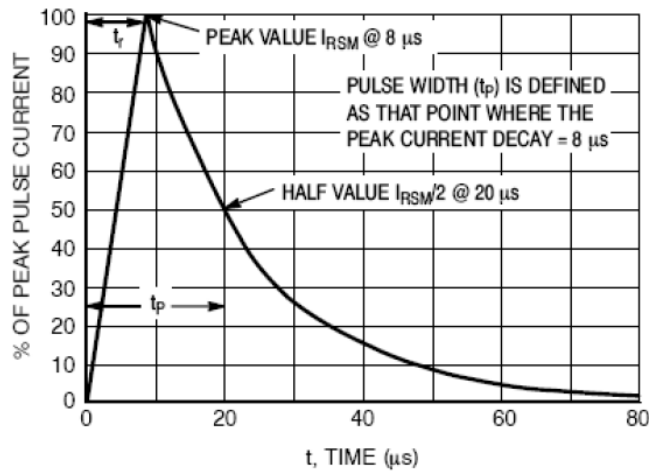
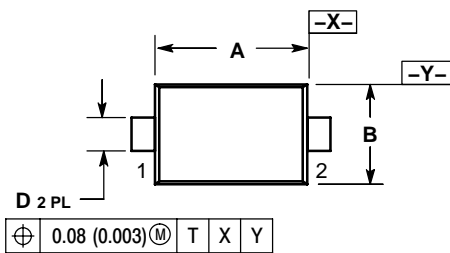


Figure 1. 8 x 20  $\mu\text{s}$  Pulse Waveform

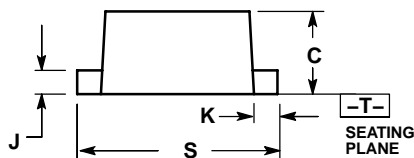
### Flat Lead SOD-523 Package Outline



#### NOTES:

- DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
- CONTROLLING DIMENSION: MILLIMETER.
- MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	1.10	1.20	1.30	0.043	0.047	0.051
B	0.70	0.80	0.90	0.028	0.032	0.035
C	0.50	0.60	0.70	0.020	0.024	0.028
D	0.25	0.30	0.35	0.010	0.012	0.014
J	0.07	0.14	0.20	0.0028	0.0055	0.0079
K	0.15	0.20	0.25	0.006	0.008	0.010
S	1.50	1.60	1.70	0.059	0.063	0.067



### SOLDERING FOOTPRINT\*

