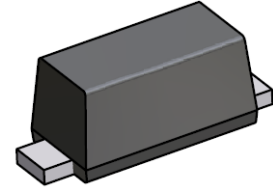


SOD-523 SURFACE MOUNT
Very Small Outline Flat Lead Plastic Package
Transient Voltage Suppressors
ESD Protection Diodes

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	± 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	°C
T_j	Operating Junction Temperature	+150	°C
T_L	Max Lead Solder Temperature range (10 Second Duration)	260	°C

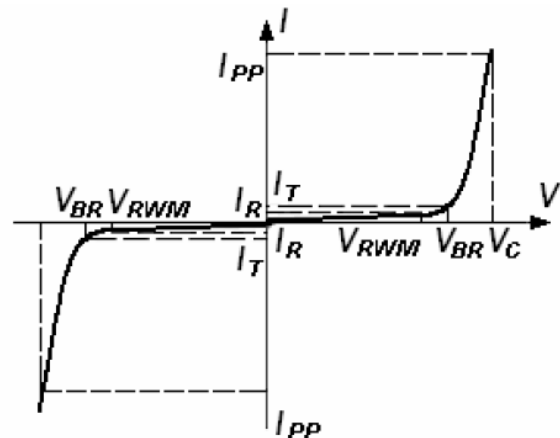
These ratings are limiting values above which the serviceability of the diode may be impaired.
Note 1. FR-5 = 1.0 x 0.75 x 0.62 in.

Specification Features:

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

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)	$I_R @ V_{RWN}$ (μA)	$V_{BR} @ I_T$ (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.
RLSD52A031V	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°C .

SURGE CURRENT WAVEFORM:

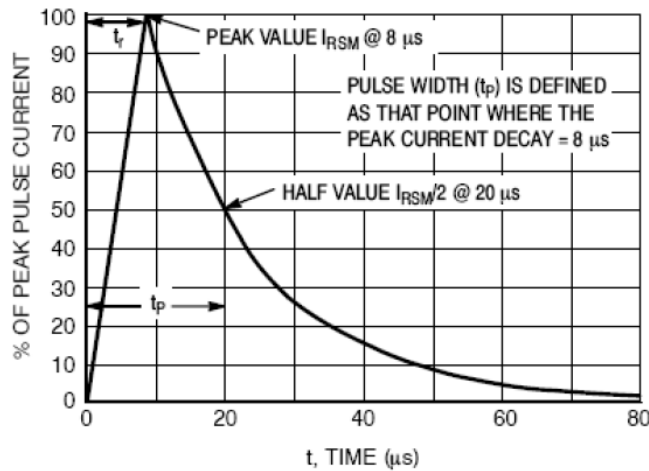
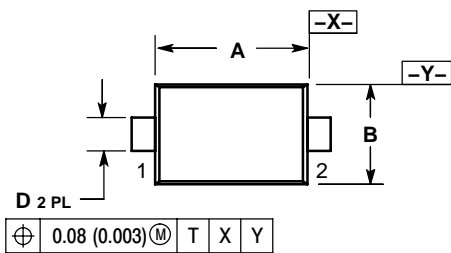


Figure 1. 8 x 20 μs Pulse Waveform

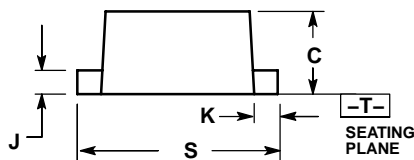
Flat Lead SOD-523 Package Outline



NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETER.
3. 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*

