

## SOD882 Plastic Package Transient Voltage Suppressors ESD Protection Diode

Green Product



SOD882 Package



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

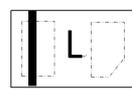
Symbol	Parameter	Value	Units
PD	Total Power Dissipation on FR-5 Broad	150	mW
$T_L$	Max Lead Solder Temperature range (10 Second Duration)	260	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55 to +150	$^\circ\text{C}$
$T_J$	Junction Temperature	+150	$^\circ\text{C}$
ESD	IEC61000-4-2 Air Discharge	$\pm 15$	KV
	Contact Discharge	$\pm 8$	
EFT	IEC61000-4-4	40	A
ESD	Per Human Body Model	16	KV

These ratings are limiting values above which the serviceability of the diode may be impaired.

### Specification Features:

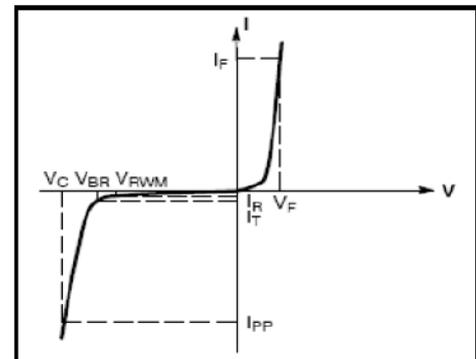
- § Ultra Low Capacitance <0.9pF
- § Low Clamping Voltage
- § Small Body Outline Dimensions
- § Low Leakage Current
- § Response Time is Typically < 1ns
- § ESD Rating of Class 3 (>16kV) per Human Body Model
- § RoHS Compliant
- § Green EMC
- § Matte Tin(Sn) Lead Finish
- § Band Indicates Cathode
- § Weight: approx. 0.001g

### DEVICE MARKING CODES:

Device Type	Marking	Shipping
ESD8LL5V0		10,000/Tape & Reel

### Electrical Parameter:

Symbol	Parameter
$V_C$	Clamping Voltage @ $I_{PP}$
$I_{PP}$	Peak Pulse Current
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_R$	Reverse Leakage Current @ $V_{RWM}$
$V_{RWM}$	Reverse Standoff Voltage
$V_F$	Forward Voltage @ $I_F$
$I_F$	Forward Current



V-I characteristics for a uni-directional TVS

**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 1) (Volts)		$I_T$ (mA)	$V_C @ I_{PP}^* = 1\text{A}$ (Volts)	$V_C @ \text{Max } I_{PP}^*$	$I_{PP}^*$ (A)	$C @$ $V_R = 0\text{V}, f = 1\text{MHz}$ (pF)
	Max	Max	Min	Max		Typ.	Max	Max	Typ.
ESD8LL5V0	5.0	1	5.4	---	1.0	8	20	4	0.65

\* Surge current waveform per Figure 1.

Note 1:  $V_{BR}$  is measured with a pulse test current  $I_T$  at an ambient temperature of  $25^\circ\text{C}$ .

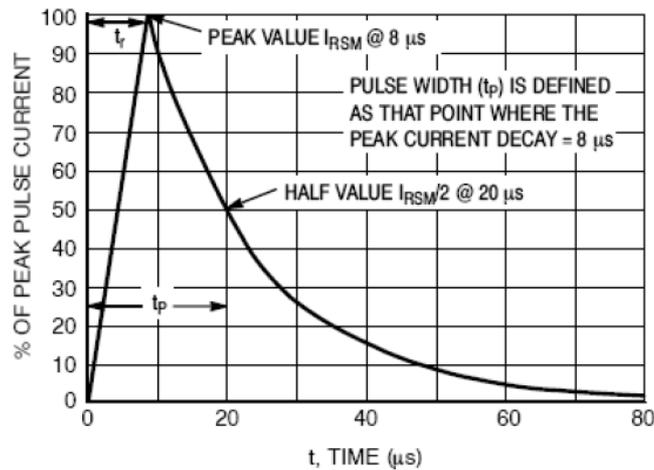
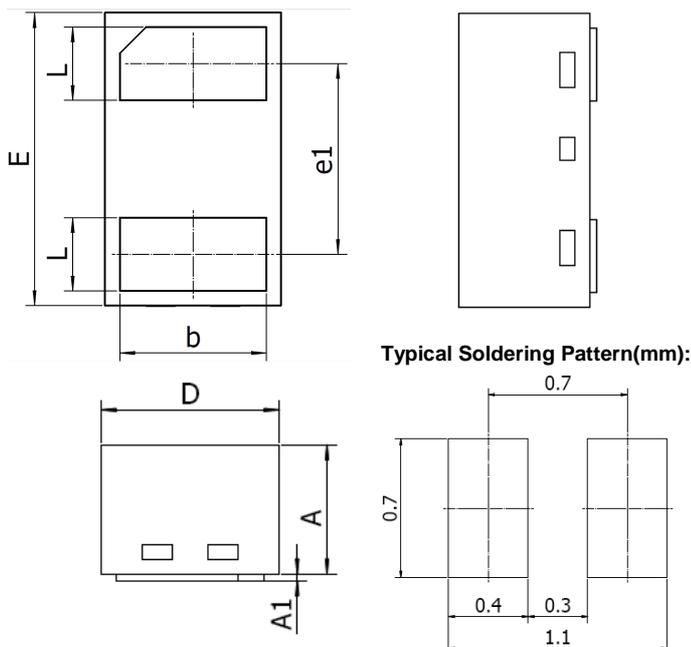
**SURGE CURRENT WAVEFORM:**


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

**SOD882 Package Outline**


DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.46	0.50	0.018	0.020
A1	---	0.03	---	0.001
b	0.45	0.55	0.018	0.022
D	0.55	0.65	0.022	0.026
E	0.95	1.05	0.037	0.041
e1	Typ. 0.65		Typ. 0.026	
L	0.20	0.30	0.008	0.012

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