

## SOD882 Plastic Package Transient Voltage Suppressors ESD Protection Diode

Green Product



SOD882 Package



ELECTRICAL SYMBOL

### 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 Contact Discharge	$\pm 15$ $\pm 8$	KV
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:

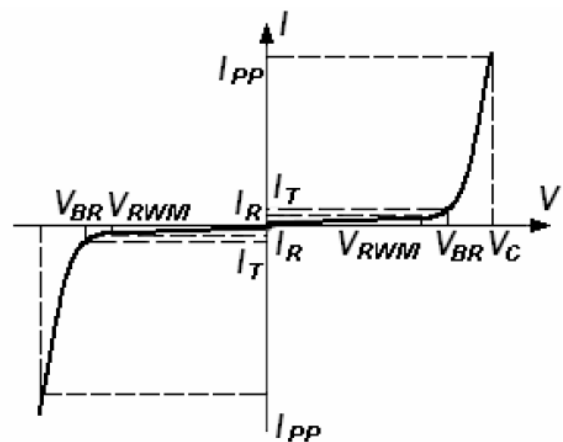
- Ultra Low Capacitance Typ. 0.9pF
- Low Clamping Voltage
- Small Body Outline Dimensions
- Low Leakage Current
- Response Time is Typically < 1ns
- ESD Rating of Class 3 (>16kV) per Human Body Model
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Weight: approx. 0.001g

### DEVICE MARKING CODES:

Device Type	Marking	Shipping
ESD8L5V0C		10,000/Reel

### 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 1) (Volts)		$I_T$ (mA)	$V_C @ \text{Max } I_{PP}$ (Volts)	$I_{PP}^*$ (A)	$C @$ $V_R = 0V, f = 1\text{MHz}$ (pF)
	Max	Max	Min	Max		Max	Max	Typ.
ESD8L5V0C	5.0	1	5.4	---	1.0	12.9	1	0.9

\* 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:**

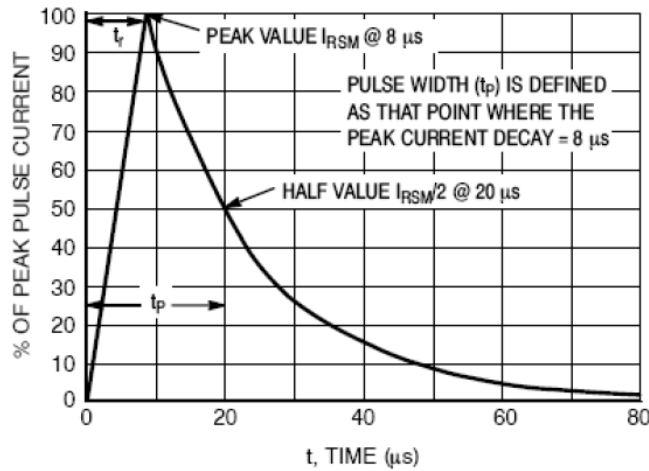
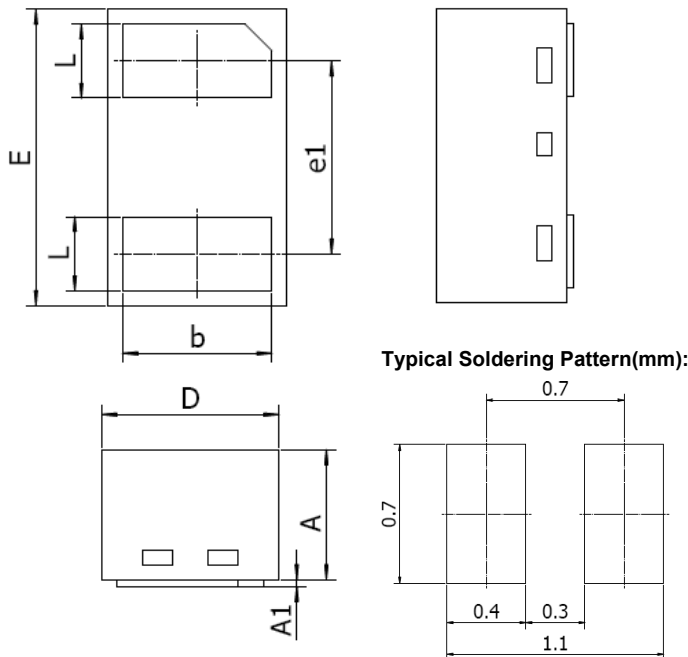


Figure 1. 8 x 20  $\mu\text{s}$  Pulse Waveform

**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

## **NOTICE**

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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.

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