

SOD882 Plastic Package Transient Voltage Suppressors ESD Protection Diode

Green Product

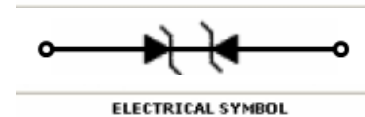


SOD882 Package

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_J, T_{stg}	Junction & Storage Temperature Range	-55 to +150	$^\circ\text{C}$
T_{opr}	Max operation Temperature Range	+125	$^\circ\text{C}$
ESD	IEC61000-4-2 Air Discharge	± 25	KV
	Contact Discharge	± 20	


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



Specification Features:

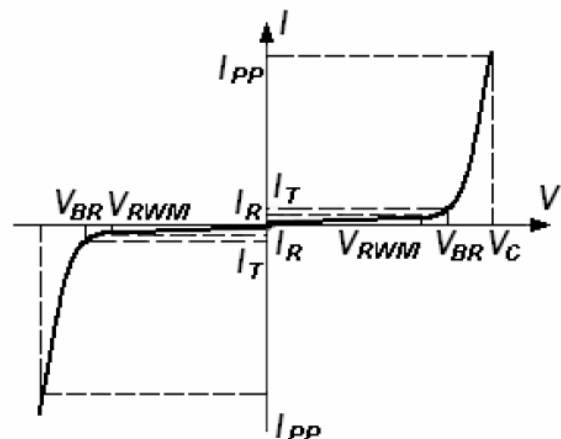
- § Capacitance Max. 16pF
- § Small Body Outline Dimensions
- § Low Leakage Current
- § ESD Rating of Class 3 (>16kV) per Human Body Model
- § RoHS Compliant
- § Green EMC
- § Matte Tin(Sn) Lead Finish

DEVICE MARKING CODES:

Device Type	Marking	Shipping
ESD8D3V3CA		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)	$I_R @ V_{RWM}$ (μA)	$V_{BR} @ I_T$ (Note 1) (Volts)		I_T (mA)	$V_C @ I_{PP+} = 1\text{A}$ (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	Max		Max	Max	Max	Max	Max
ESD8D3V3CA	3.3	0.1	5	6.5	1.0	7	6	10	60	16

+ 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°C .

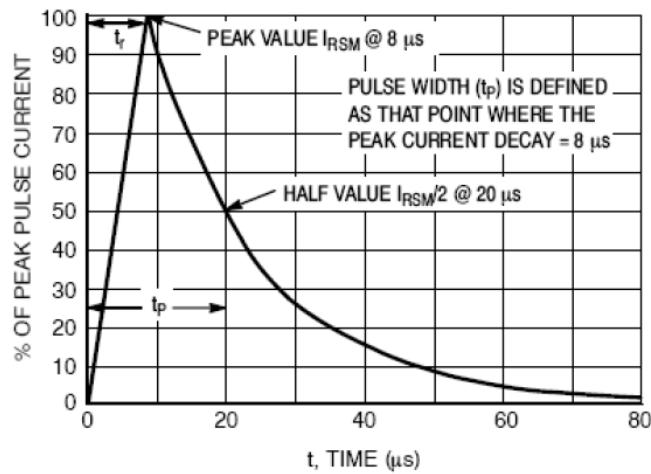
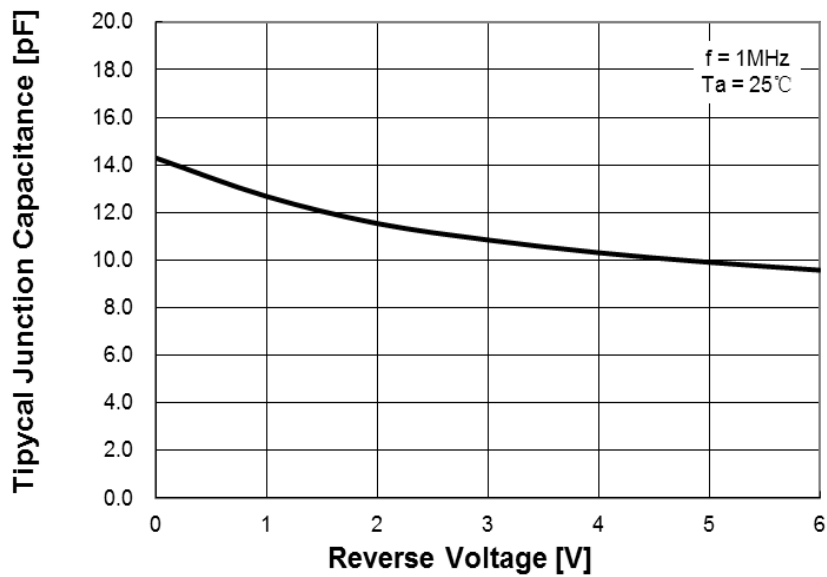
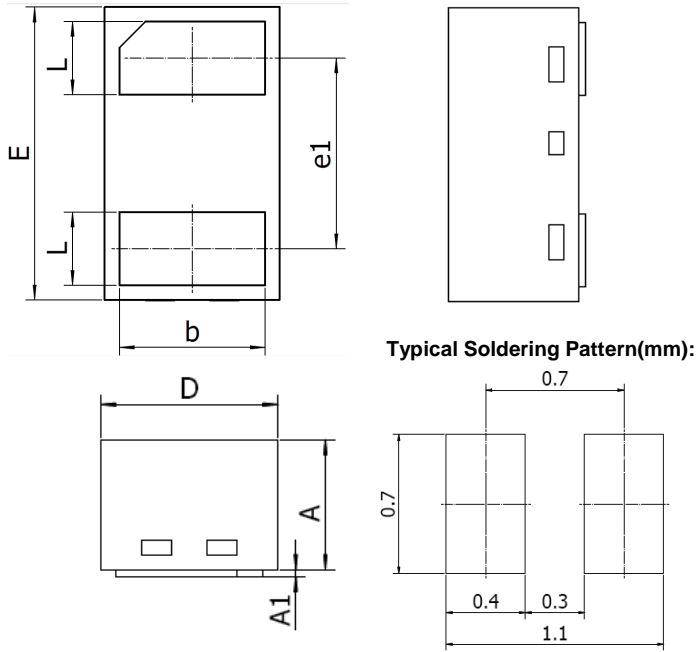
SURGE CURRENT WAVEFORM:


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

CAPACITANCE CURVE:


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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