ESD8D3V3CA

SOD882 Plastic Package
Transient Voltage Suppressors
ESD Protection Diode

Green Product

SOD882 Package

Absolute Maximum Ratings T_A = 25°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	°C
T_J, T_{stg}	Junction & Storage Temperature Range	-55 to +150	°C
T_{OPR}	Max operation Temperature Range	+125	°C
ESD	IEC61000-4-2 Air Discharge Contact Discharge	±25 ±20	KV

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

ELECTRICAL SYMBOL

Specification Features:

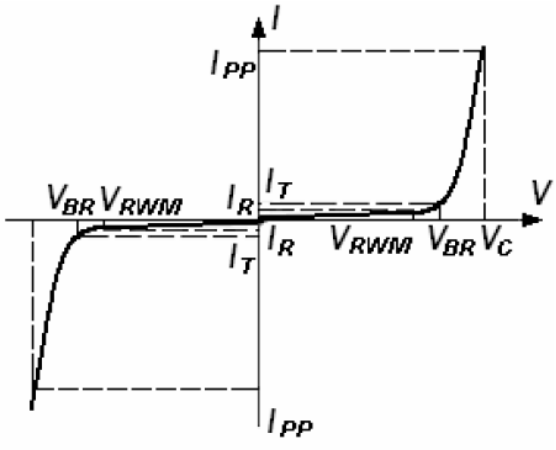
- § Capacitance Max. 16pF
- § Small Body Outline Dimensions
- § Low Leakage Current
- § ESD Rating of Class 3 (>16kV) per Human Body Model
- § RoHS Compliant
- § Green EMC
- § Matte Tin(Sn) Lead Finish

DEVICE MARKING CODES:

Device Type	Marking	Shipping
ESD8D3V3CA	BK	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°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+} =1A (Volts)	I_{PP+} (A)	V_C @ Max I_{PP+} (Volts)	P_{PK+} (W)	C @ V_R = 0V, f = 1MHz (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:

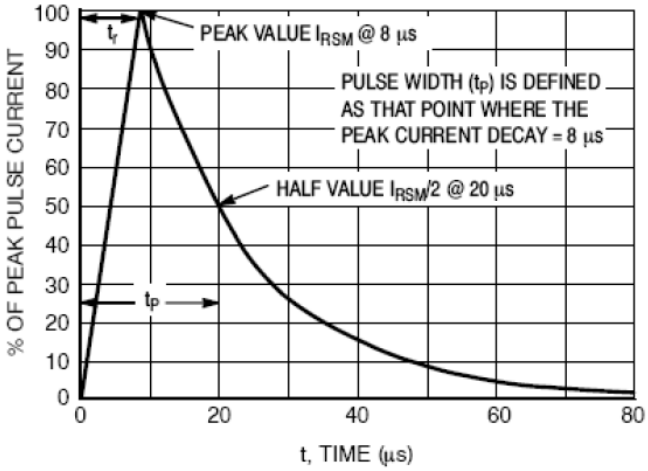
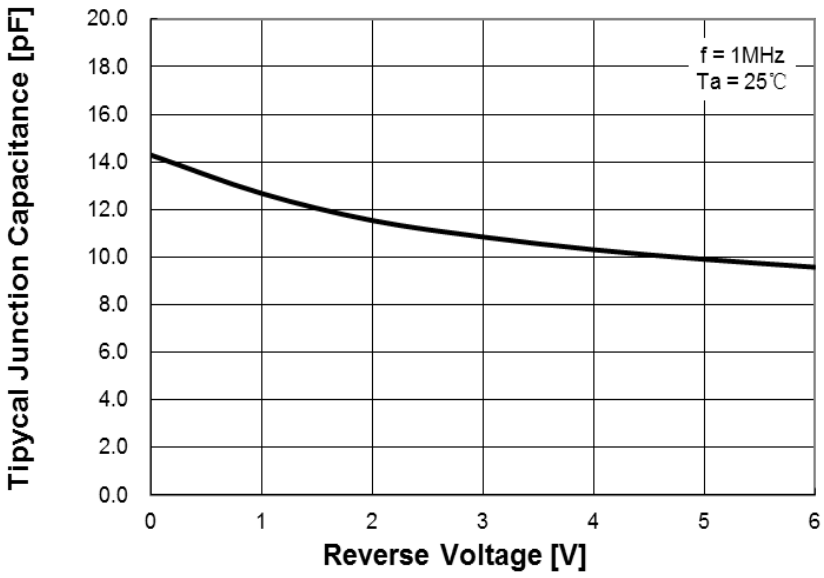
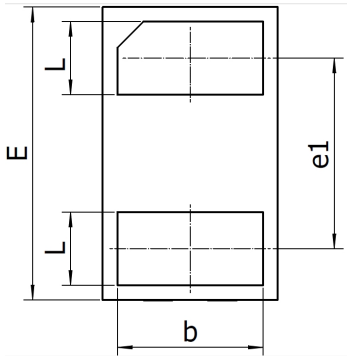


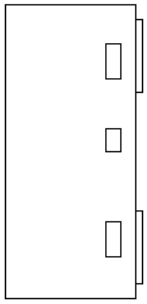
Figure 1. 8 x 20 μs Pulse Waveform

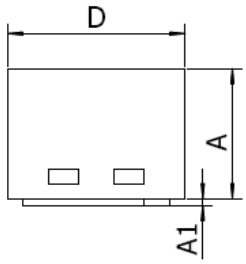
CAPACITANCE CURVE:



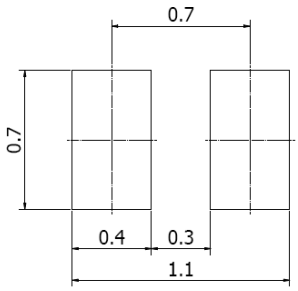
SOD882 Package Outline







Typical Soldering Pattern(mm):



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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