

# ESD8D3V3CA

## ESD8D3V3CA Transient Voltage Suppressors ESD Protection Diode

### General description

Silicon Diode in a SOD882 Plastic Package.

### FEATURES

- Capacitance Max. 15 pF
- Small Body Outline Dimensions
- Low Leakage Current
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- MSL1

### Package Outline



### SOD882 Package



### Device Marking:

Device Type	Marking
ESD8D3V3CA	F3 or BK

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

Symbol	Parameter	Value	Units
$T_L$	Max Lead Solder Temperature range (10 Second Duration)	260	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55 to +150	$^\circ\text{C}$
$T_{OP}$	Max operation Temperature Range	125	$^\circ\text{C}$
ESD	IEC61000-4-4 (EFT 5/50ns)	40	A
ESD	IEC61000-4-2 Air Discharge Contact Discharge	$\pm 30$ $\pm 30$	KV

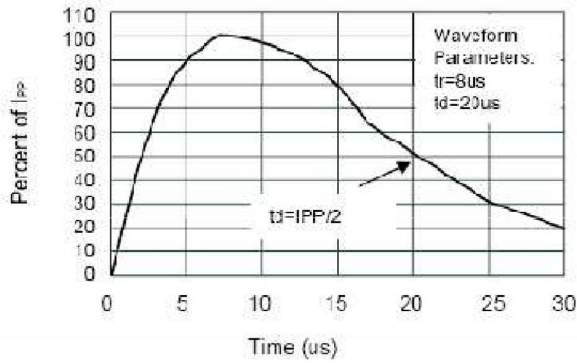
Symbol	Parameter	Value	Units
$V_{ESD}$	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	$\pm 30$ $\pm 30$	kV
$P_{PP}$	Peak Pulse Power (8/20 $\mu\text{s}$ )	84	W
$T_{OPT}$	Operating Temperature	-55/+125	C
$T_{STG}$	Storage Temperature	-55/+150	C

### ABSOLUTE MAXIMUM RATING

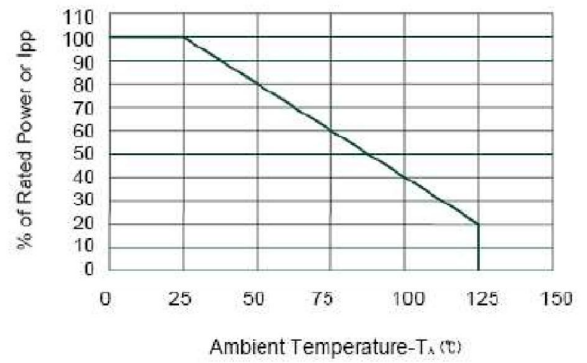
### Electrical Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
$V_{RWM}$	Reverse Working Voltage				3.3	V
$V_{BR}$	Reverse Breakdown Voltage	$I_T = 1\text{mA}$	3.6			V
$I_R$	Reverse Leakage Current	$V_{RWM} = 3.3\text{V}$			0.5	$\mu\text{A}$
$V_C$	Clamping Voltage	$I_{PP} = 1\text{A}$ , $t_p = 8/20\mu\text{s}$		4.4	5.6	V
$V_C$	Clamping Voltage	$I_{PPmax} = 7\text{A}$ , $t_p = 8/20\mu\text{s}$		7.0	12.0	V
$C_J$	Junction Capacitance	$V_R = 0\text{V}$ , $f = 1\text{MHz}$		13	15	pF

## WAVEFORM CURVE:

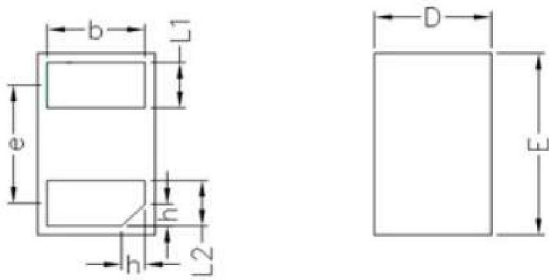


Pulse Waveform



Power Derating Curve

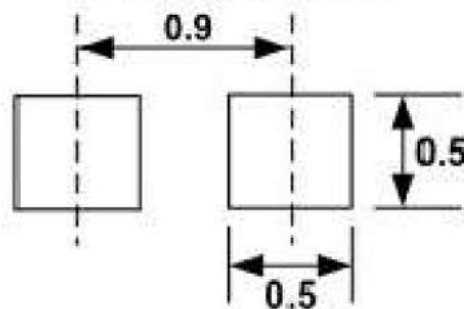
## SOD882 Package Outline



Unit: mm

	MIN	NOM	MAX
D	0.55	0.60	0.65
E	0.95	1.00	1.05
L1	0.20	0.25	0.30
L2	0.20	0.25	0.30
b	0.45	0.50	0.55
e	0.65BSC		
A	0.45	0.50	0.55
h	0.07	0.12	0.17

Dimension: Millimeter  
 (Stencil thickness: 0.1)



Soldering Footprint

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