

# LESD8D8.0CT5G ESD PROTECTION DIODE

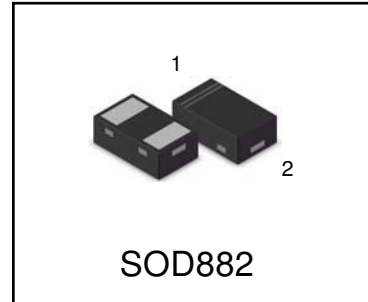
## Discription

The LESD8D8.0CT5G is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time, make these parts ideal for ESD protection on designs where board space is at a premium. Because of its small size, it is suited for use in cellular phones, digital cameras and many other portable applications where board space is at a premium.

## Features

- | Small Body Outline Dimensions:  
1.00 mm x 0.60 mm
- | Low Body Height: 0.50 mm
- | Low Leakage
- | Response Time is Typically < 1 ns
- | ESD Rating of Class 3 per Human Body Model
- | IEC61000-4-2 Level 4 ESD Protection
- | We declare that the material of product compliance with RoHS requirements.
- | S- prefix for automotive and other applications requiring unique site and control change requirements AEC-101 qualified and PPAP capable.

LESD8D8.0CT5G  
S-LESD8D8.0CT5G



## Ordering information

Device	Marking	Shipping
LESD8D8.0CT5G S-LESD8D8.0CT5G	R8	10000/Tape&Reel

## MAXIMUM RATINGS

Rating	Symbol	Value	Unit
IEC 61000-4-2 (ESD) Air Contact Contact discharge		±30 ±30	kV kV
Total Power Dissipation on FR-5 Board (Note 1) @ T <sub>A</sub> =25°C	PD	200	mW
Junction and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to 150	°C
Lead Solder Temperature – Maximum (10 Second Duration)	TL	260	°C

Stresses exceeding Maximum Ratings may damage the device. Maximum Rating are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

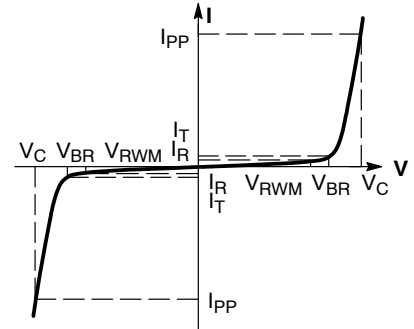
1. FR-5 = 1.0\*0.75\*0.62 in.

# LESD8D8.0CT5G

## Electrical Parameter

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

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 @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$P_{pk}$	Peak Power Dissipation
C	Capacitance @ $V_R = 0$ and $f = 1.0$ MHz



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

Device	$V_{RWM}$ (V)	$I_R$ ( $\mu\text{A}$ ) @ $V_{RWM}$	$V_{BR}$ (V) * @ $I_T = 1\text{mA}$		$I_{PP}$ (A) **	$V_C$ (V) ** @ $I_{PP} = 10\text{A}$	$P_{PK}$ (W) **	C (pF) $V_R=0\text{V}, f=1\text{MHz};$
	Max	Max	Min	Max	Max	Max	Max	Typ.
LESD8D8.0CT5G	8	1	9	13	10	18	180	15

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

\*\* Surge current waveform per Figure 1.

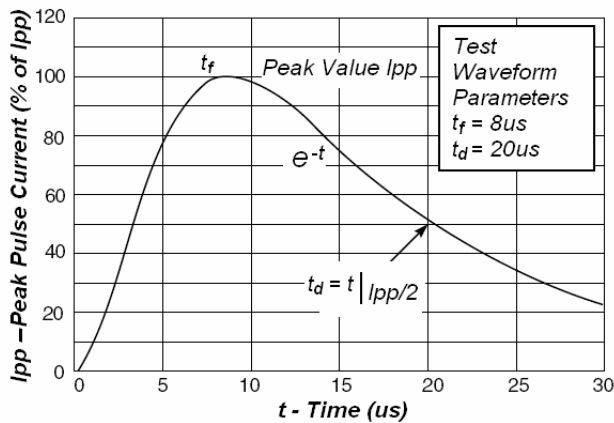


Fig 1. Pulse Waveform

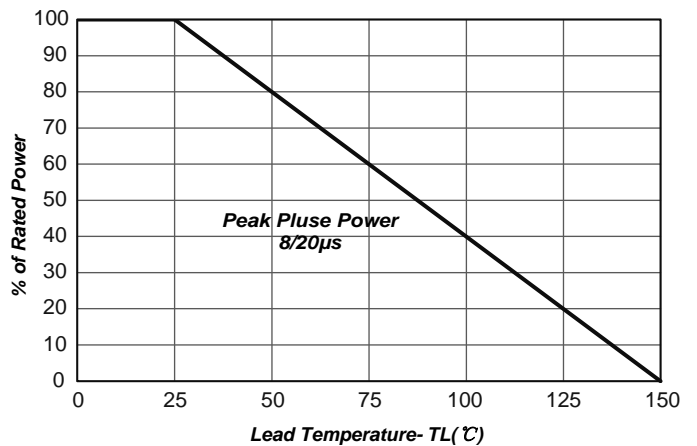


Fig2. Power Derating Curve

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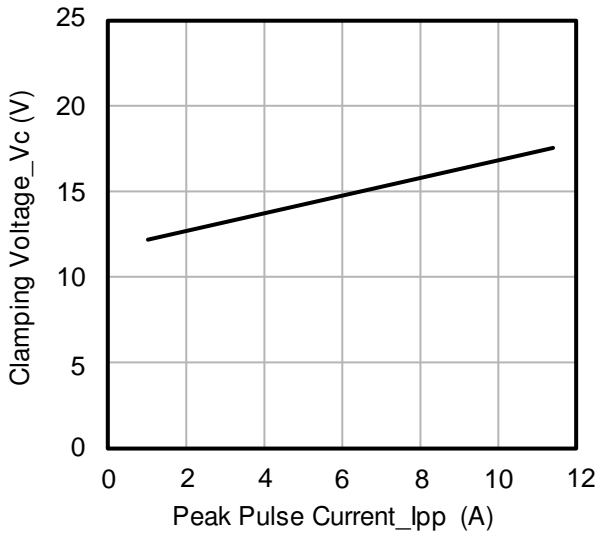


Fig 3. Clamping Voltage vs. Peak Pulse Current

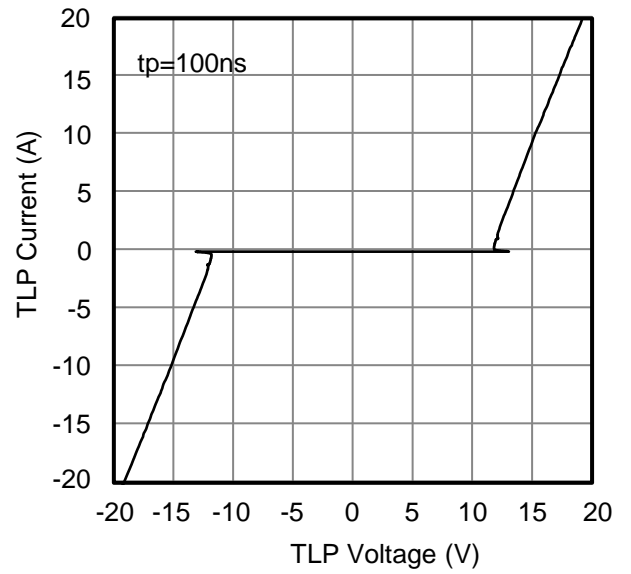
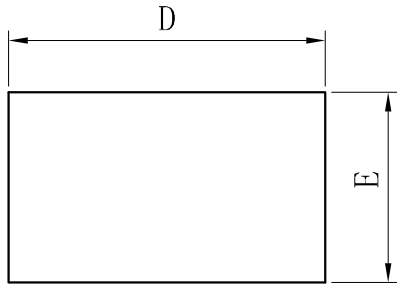


Fig 4.TLP Measurement

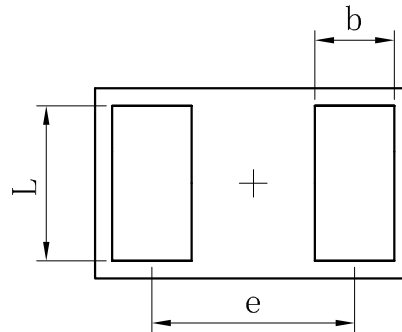
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## OUTLINE AND DIMENSIONS

### SOD882

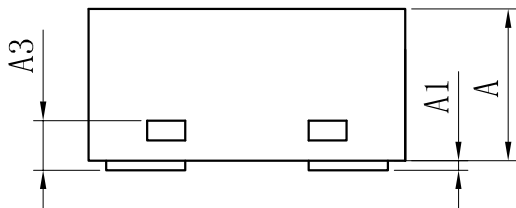


TOP VIEW



BOTTOM VIEW

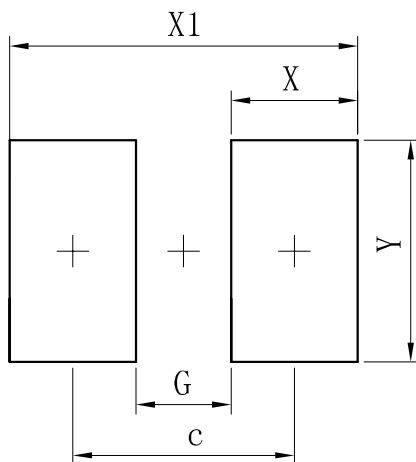
SOD882			
Dim	Min	Typ	Max
D	0.95	1.00	1.05
E	0.55	0.60	0.65
e	-	0.64	-
L	0.44	0.49	0.54
b	0.20	0.25	0.30
A	0.43	0.48	0.53
A1	0	-	0.05
A3	0.127REF.		
All Dimensions in mm			



SIDE VIEW

## SOLDERING FOOTPRINT

### SOD882



Dimensions	(mm)
c	0.70
G	0.30
X	0.40
X1	1.10
Y	0.70