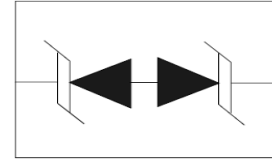


## Discription

The LESD8D5.0CA is designed to protect voltage sensitive components from ESD. 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, MP3 players, digital cameras and many other portable applications where board space is at a premium.



## Features

- Low Leakage
- Response Time is Typically < 1 ns
- ESD Rating of Class 3 (> 16 kV) per Human Body Model
- IEC61000-4-2 Level 4 ESD Protection
- These are Pb-Free Devices
- We declare that the material of product compliance with RoHS requirements.

## Applications

- Cellular phones
- audio MP3 players
- Digital cameras
- Portable
- applications mobile telephone

## MAXIMUM RATINGS

Rating	Symbol	Value	Unit
IEC 61000-4-2 (ESD) Air discharge Contact discharge		±25 ±20	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.

**ELECTRICAL CHARACTERISTICS**

Device	$V_{RWM}$ (V)	$I_{R1}$ ( $\mu$ A) @ $V_{RWM}$	$I_{R2}$ ( $\mu$ A) @ $V_R=3.5V$	$V_{BR}$ (V) @ $I_T$ (Note 2)		$I_T$ mA	$V_C$ (V) @ $I_{PP} = 1$ A (Note 3)	$V_C$ (V) @ MAX $I_{PP}$ (Note 3)	$I_{PP}$ (A) (Note 3)	$P_{PK}$ (W) (Note 3)	C (pF)
	Max	Max	Max	Min	Max		Max	Max	Max	Max	
LESD8D5.0CA	5.0	0.5	0.3	5.6	8.0	1.0	9.8	12.5	5.5	69	15

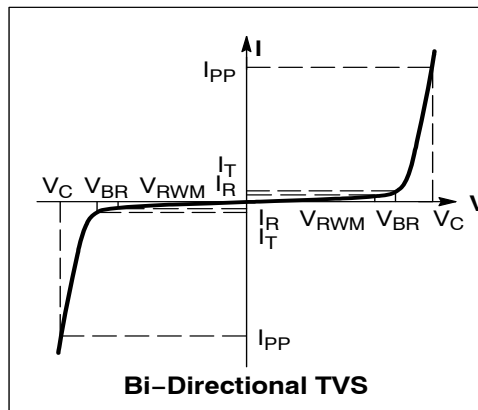
Other voltage available upon request.

- $V_{BR}$  is measured with a pulse test current  $I_T$  at an ambient temperature of 25°C
- Surge current waveform per Figure 3.

**ELECTRICAL CHARACTERISTICS**

( $T_A = 25^\circ C$  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



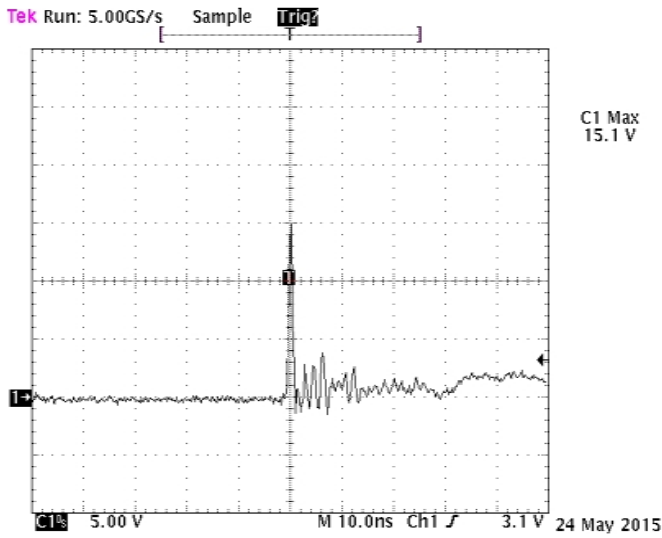


Fig1. ESD Clamping Voltage Screenshot Positive 8 kV Contact per IEC61000-4-2

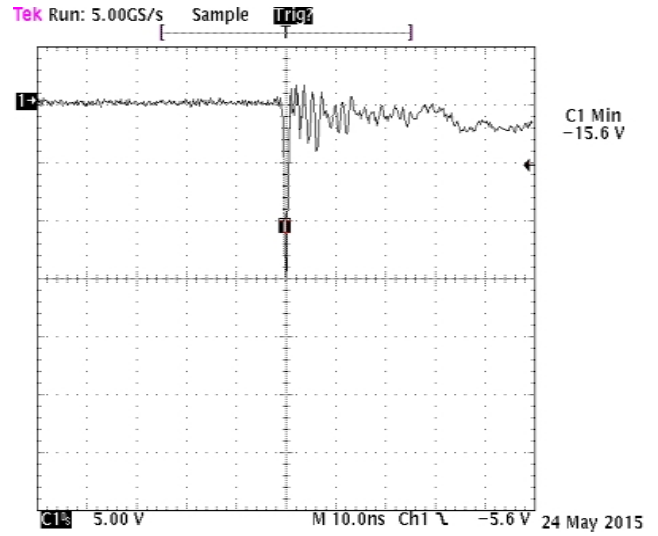


Fig2. ESD Clamping Voltage Screenshot Negative 8 kV Contact per IEC61000-4-2

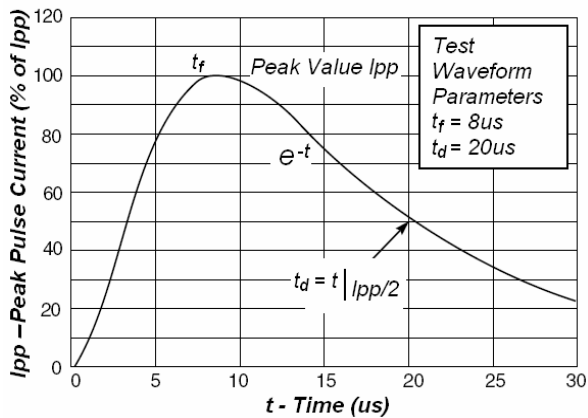
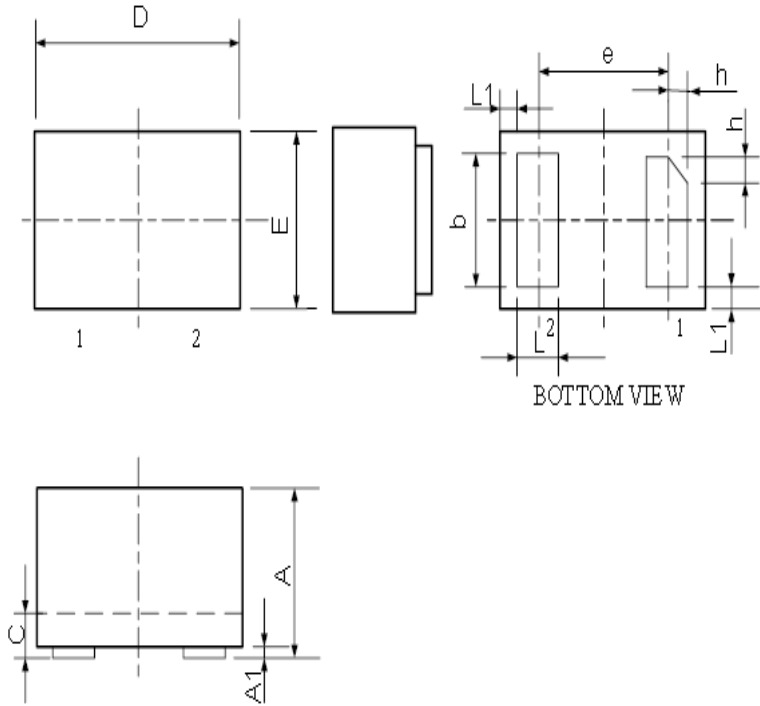


Fig3. Pulse Waveform

**SOD-882 PACKAGE OUTLINE DIMENSIONS**



Symbol	Dimensions In Millimeters	
	Minimum	Maximum
A	0.450	0.550
A1	0.000	0.050
b	0.45	0.55
C	0.12	0.18
D	0.950	1.050
e	0.65BSC	
E	0.550	0.650
L	0.200	0.300
L1	0.05REF	
h	0.07	0.17

**Marking**



**Ordering information**

Order code	Package	Baseqty	Deliverymode
LESD8D5.0CAT5G	SOD-882	10000	Tape and reel