

S-LESD8LL5.0CT5G ESD PROTECTION DIODE

Discription

The S-LESD8LL5.0CT5G 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, digital cameras and many other portable applications where board space is at a premium.

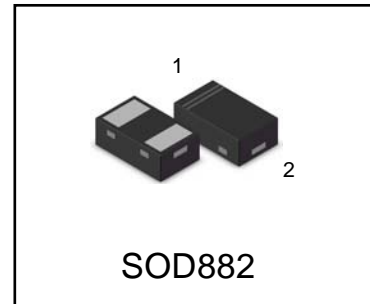
Applications

- I Cellular phones audio
- I Digital cameras
- I Portable applications
- I Mobile telephone

Features

- I Low Leakage
- I Response Time is Typically < 1 ns
- I IEC61000-4-2 Level 4 ESD Protection
- I We declare that the material of product compliant with RoHS requirements and Halogen Free.
- I S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.

S-LESD8LL5.0CT5G



Ordering information

Device	Marking	Shipping
S-LESD8LL5.0CT5G	Q4	10000/Tape&Reel

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
IEC 61000-4-2 (ESD) Air discharge Contact discharge		±15 ±8	kV kV
Total Power Dissipation on FR-5 Board (Note 1) @ T _A =25°C	PD	200	mW
Junction and Storage Temperature Range	T _J ,T _{STG}	-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.

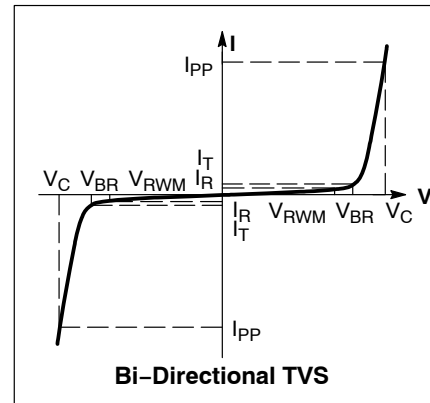
1. FR-5 = 1.0*0.75*0.62 in.

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ELECTRICAL CHARACTERISTICS

($T_A = 25^\circ\text{C}$ 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 CHARACTERISTICS

Device	V_{RWM} (V)	I_R (μA) @ V_{RWM}	V_{BR} (V) @ I_T (Note 2)	I_T	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	Min	mA	Max	Max	Max	Max	Typ	Max
S-LESD8LL5.0CT5G	5	0.5	6	1.0	12	25	4	80	0.25	0.3

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 1.

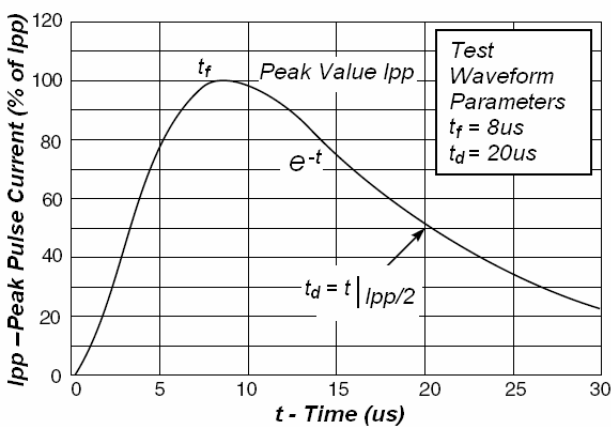


Fig1. Pulse Waveform

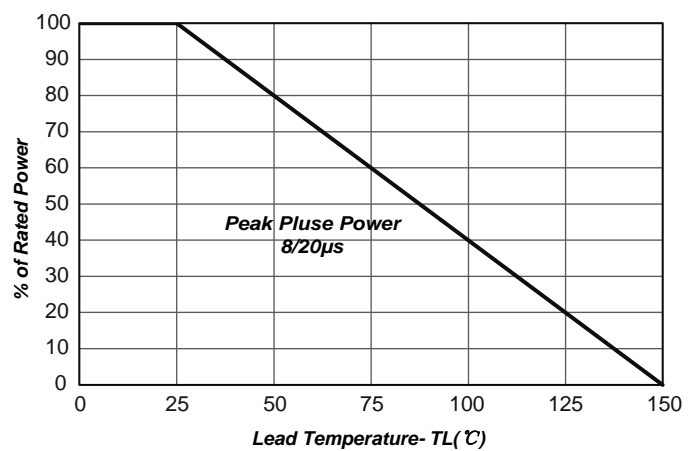
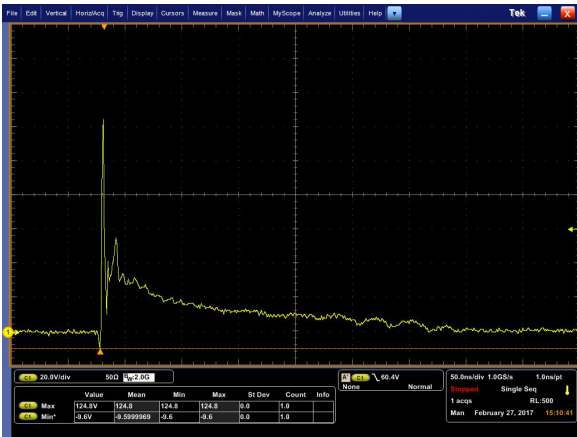
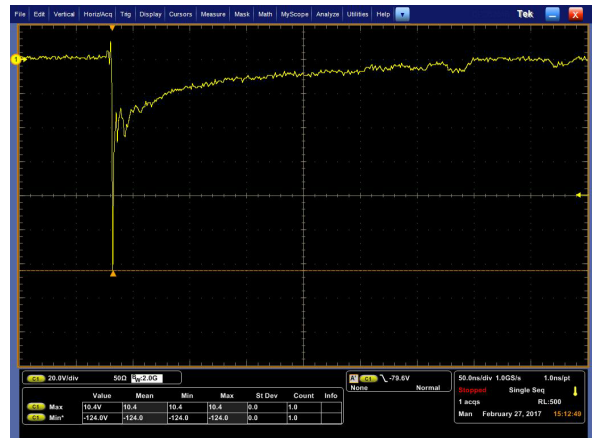


Fig2. Power Derating Curve

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**Fig3. ESD Clamping Voltage
Positive 8 kV Contact per IEC61000-4-2**

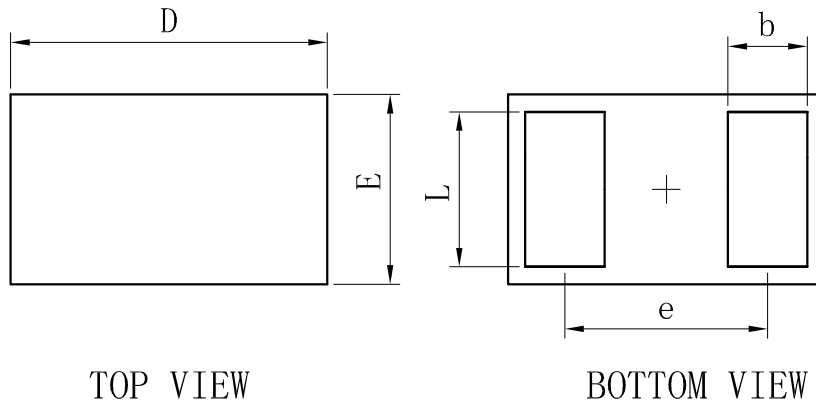


**Fig 4 . ESD Clamping Voltage
Negative 8 kV Contact per IEC61000-4-2**

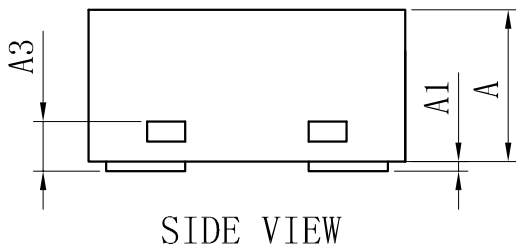
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OUTLINE AND DIMENSIONS

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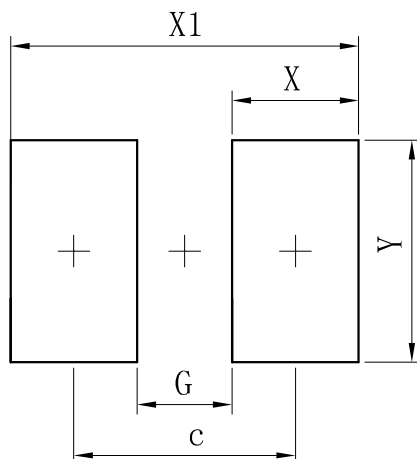


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Dim	Min	Typ	Max
D	0.95	1.00	1.05
E	0.55	0.60	0.65
e	-	0.64	-
L	0.44	0.49	0.54
b	0.20	0.25	0.30
A	0.43	0.48	0.53
A1	0	-	0.05
A3	0.127REF.		
All Dimensions in mm			



SOLDERING FOOTPRINT

SOD882



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

DISCLAIMER

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.
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