

LESD8LL5.0T5G ESD PROTECTION DIODE

Discription

The LESD8LL5.0T5G 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.

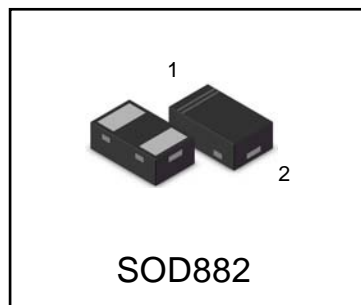
Applications

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

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
- | We declare that the material of product compliant with RoHS requirements and Halogen Free.

LESD8LL5.0T5G



Ordering information

Device	Marking	Shipping
LESD8LL5.0T5G	Q6	10000/Tape&Reel

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
IEC 61000-4-2 (ESD) Air discharge		±15	kV
Contact discharge		±8	kV
ESD Voltage Per Human Body Model		16	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.

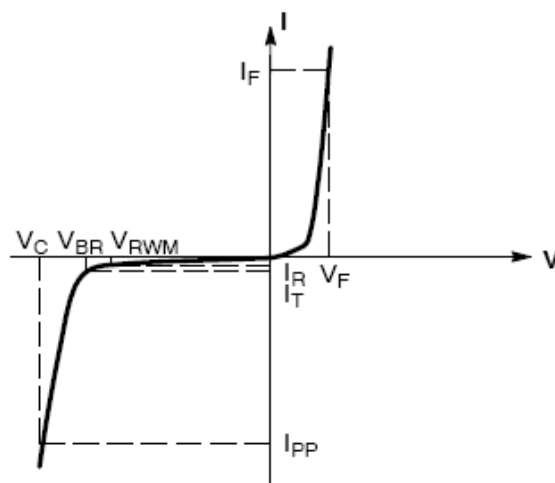
1. FR-5 = 1.0*0.75*0.62 in.

LESD8LL5.0T5G

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



Uni-Directional TVS

ELECTRICAL CHARACTERISTICS

	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)	
Device	Max	Max	Min	mA	Max	Max	Max	Max	Typ	Max
LESD8LL5.0T5G	5	0.5	6	1.0	12	20	4	60	0.5	0.6

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.

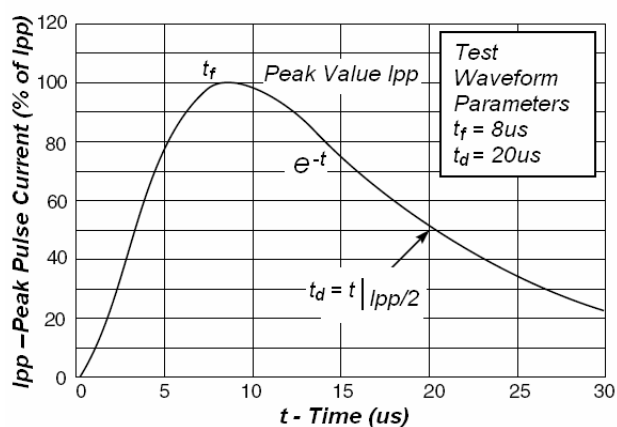


Fig1. Pulse Waveform

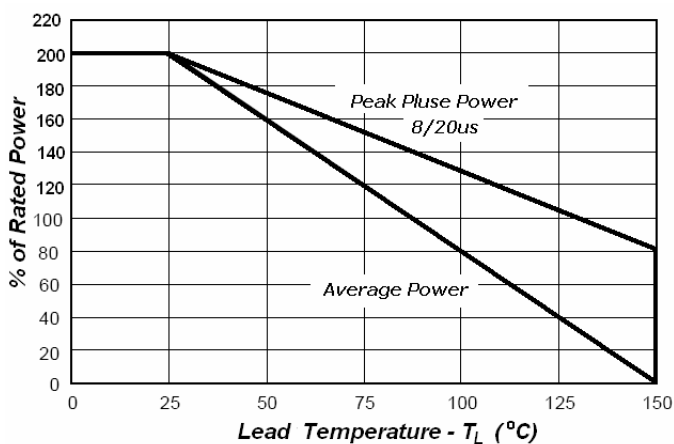


Fig2.Power Derating Curve

LESD8LL5.0T5G

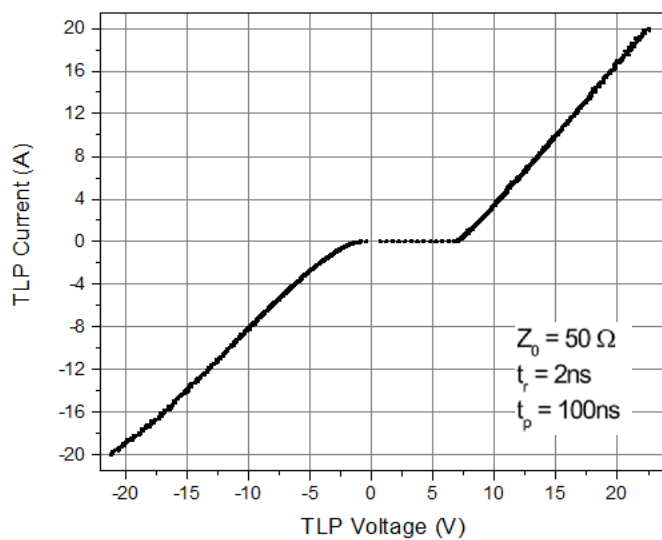
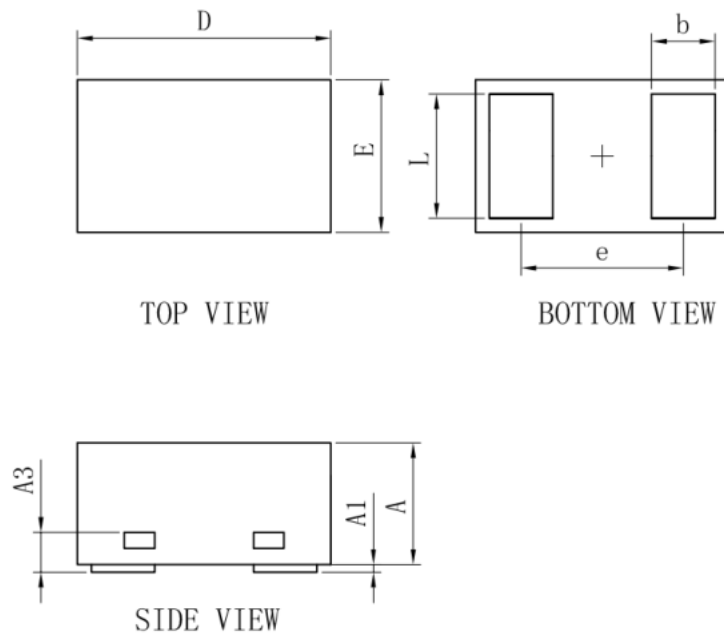


Fig3.TLP Measurement

LESD8LL5.0T5G

OUTLINE AND DIMENSIONS

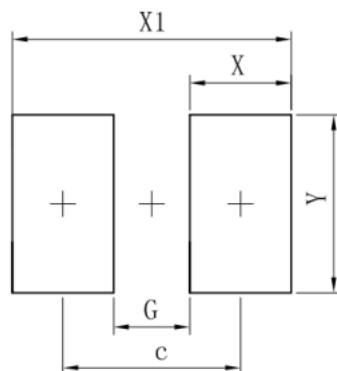
SOD882



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			

SOLDERING FOOTPRINT

SOD882



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