

LESD8D8.0T5G Transient Voltage Suppressors

Discription

The LESD8D8.0T5G is designed to protect voltage sensitive components from ESD. Excellent clamping capability, low leakage, and fast response time provide best in class protection on designs that are exposed to ESD. 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.

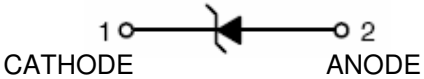
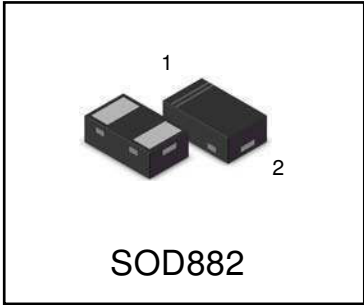
Applications

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

Features

- | Small Body Outline Dimensions:
0.039 " x 0.024 " (1.0 mm x 0.60 mm)
- | Low Body Height: 0.020 " (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
- | These are Pb-Free Devices

LESD8D8.0T5G



Ordering information

Device	Marking	Shipping
LESD8D8.0T5G	7A	10000/Tape&Reel

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
IEC 61000-4-2 (ESD) Air discharge Contact discharge		±30 ±30	kV kV
Peak Pulse Current (8/20µs)	Ppk	400	W
Total Power Dissipation on FR-5 Board (Note 1) @ T _A =25°C	PD	150	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.

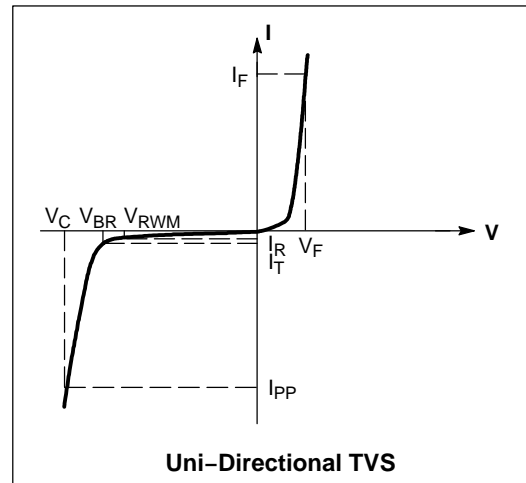
1. FR-5 = 1.0*0.75*0.62 in.

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ELECTRICAL CHARACTERISTICS

(T_A = 25°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
I _F	Forward Current
V _F	Forward Voltage @ I _F
P _{pk}	Peak Power Dissipation
C	Capacitance @ V _R = 0 and f = 1.0 MHz



ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V _{RWM}			8	V	
Breakdown Voltage	V _{BR}	8.5		10.5	V	I _R = 1mA
Peak Pulse Current (8/20μs)	I _{PP}			25	A	
Reverse Leakage Current	I _R			2	μA	V _{RM} = 8V
Clamping Voltage	V _C		10.5		V	I _{PP} = 2 A (8 x 20μs pulse)
			16		V	I _{PP} = 25A(8 x 20μs pulse)
ESD Clamping Voltage	V _C		13		V	I _{PP} = 16A(tp = 100ns (TLP))
Junction Capacitance	C _J		150		pF	V _R = 0V, f = 1MHz

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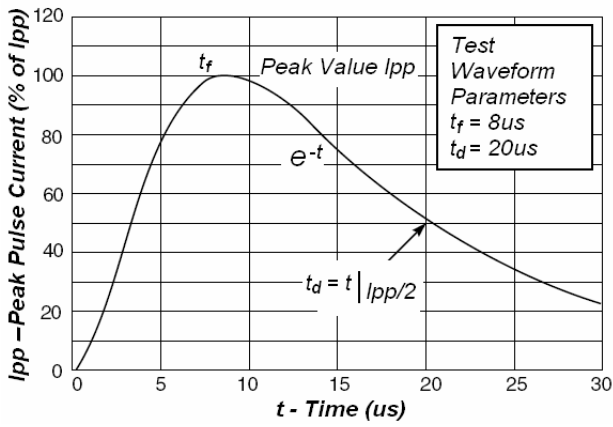


Fig1. Pulse Waveform

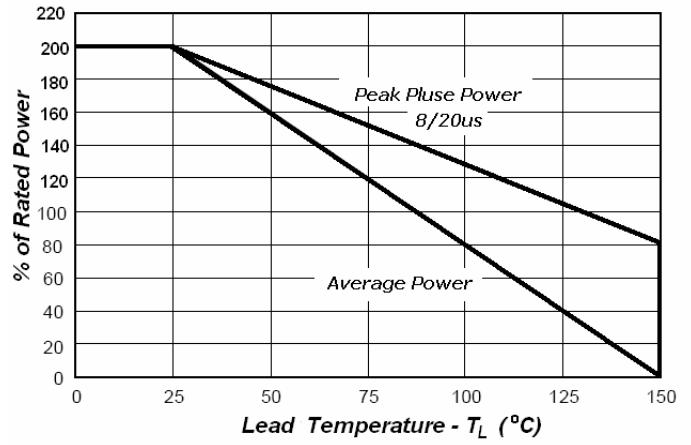


Fig2. Power Derating Curve

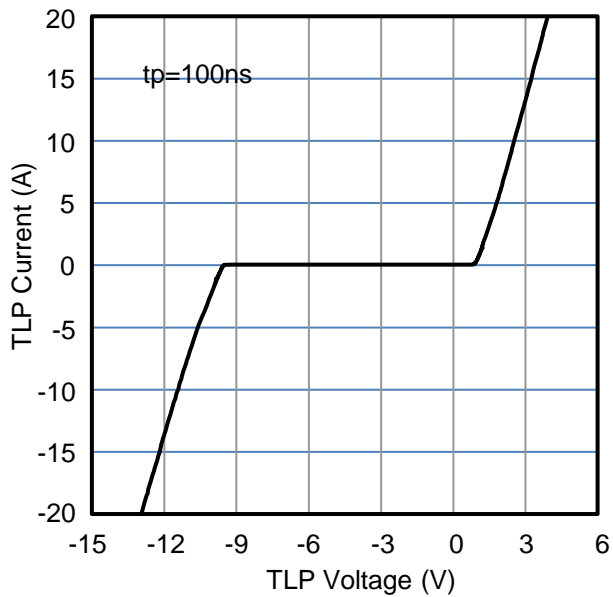


Fig3. TLP Measurement

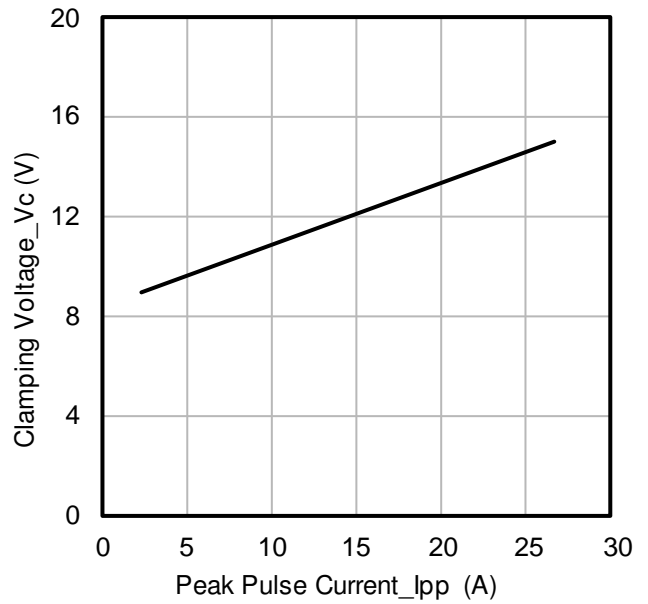
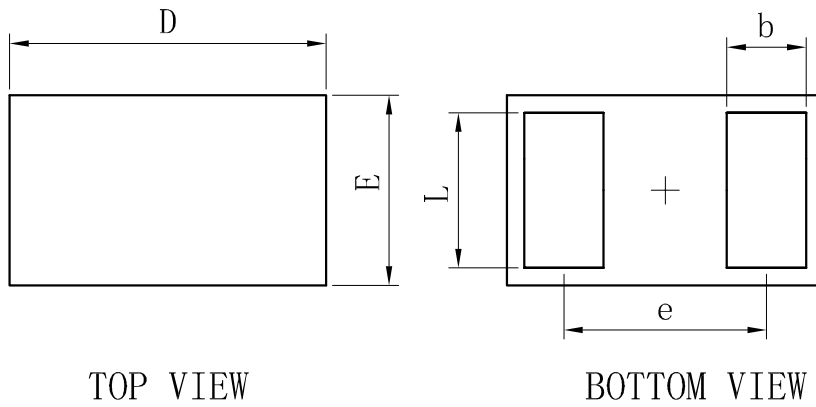


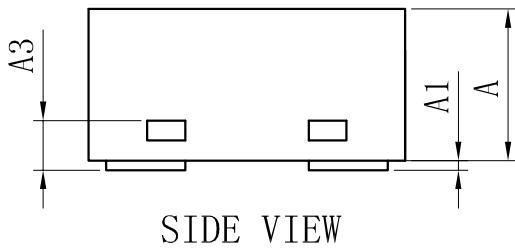
Fig4. Clamping Voltage vs. Peak Pulse Current

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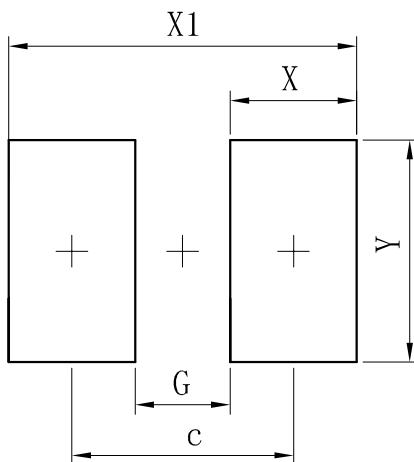
OUTLINE AND DIMENSIONS



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



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

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