

Transient Voltage Suppressors for ESD Protection

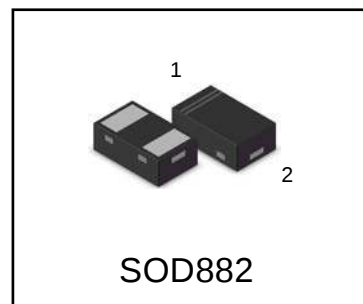
General Description

The S-LESD8D15CAT5G 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.

Applications

- Cellular phones
- Portable devices
- Digital cameras
- Power supplies

S-LESD8D15CAT5G



Features

- Small Body Outline Dimensions
- Low Body Height
- Peak Power up to 120 Watts @ 8 x 20 μ s Pulse
- Low Leakage
- Response Time is Typically < 1 ns
- IEC61000-4-2 Level 4 ESD Protection
- IEC61000-4-4 Level 4 EFT 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-Q101 qualified and PPAP capable.

ORDERING INFORMATION

Device	Marking	Shipping
S-LESD8D15CAT5G	U5	10000/Tape & Reel

Absolute Ratings ($T_{amb}=25^{\circ}C$)

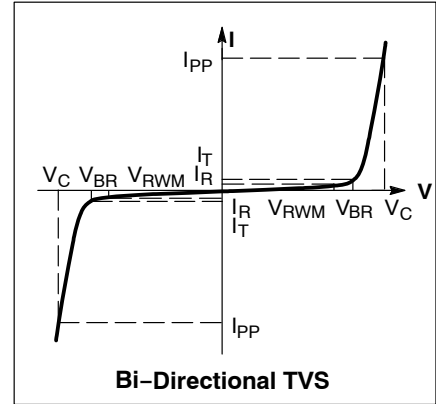
Symbol	Parameter	Value	Units
P _{PP}	Peak Pulse Power (t _p = 8/20μs)	120	W
T _L	Maximum lead temperature for soldering during 10s	260	°C
T _{stg}	Storage Temperature Range	-55 to +150	°C
T _{op}	Operating Temperature Range	-40 to +125	°C
T _j	Maximum junction temperature	150	°C
	IEC61000-4-2 (ESD)air discharge contact discharge	±30 ±30	KV
	IEC61000-4-4 (EFT)	40	A

S-LESD8D15CAT5G

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

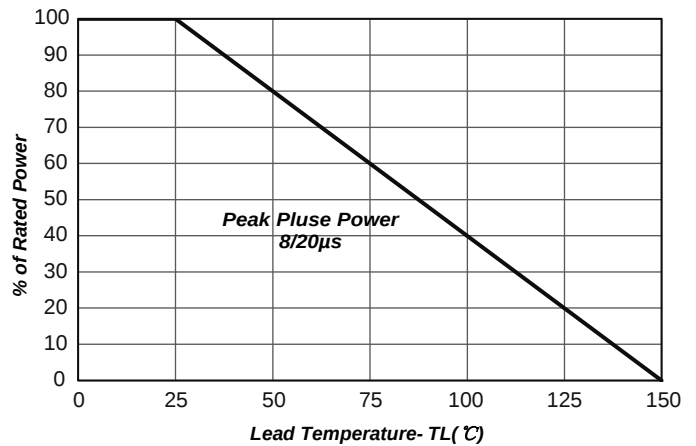
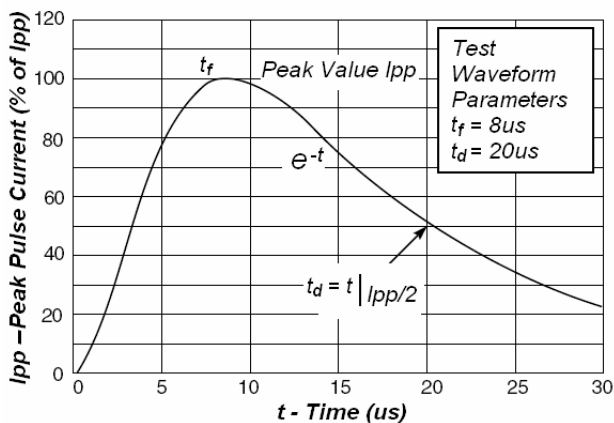


Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified. $V_F = 0.9\text{V}$ at $I_F = 10\text{mA}$

Device	V_{RWM} (V)	$I_R(\mu\text{A})$ @ V_{RWM}	V_{BR} (V) @ I_T (Note 1)		I_T	V_C (V) @ $I_{PP}=1\text{ A}^*$	V_C (V) @ $I_{PP}=5\text{ A}^*$	I_{PP} (A)*	P_{PK} (W)*	C (pF)	$R_{(dynamic)}(\Omega)$ @16A(TLP)
	Max	Max	Min	Max	mA	Max	Max	Max	Max	Max	Typ
S-LESD8D15CAT5G	15	1	16	19	1	19	23	6	120	15	0.29

*Surge current waveform per Figure 2.

- V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25°C .



S-LESD8D15CAT5G

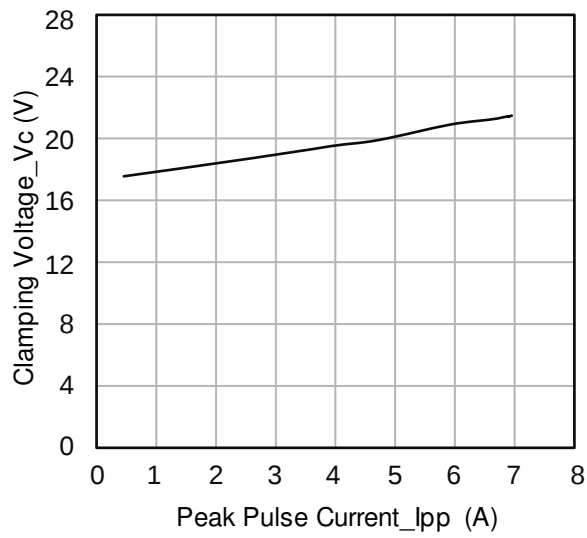


Fig 3. Clamping Voltage vs. Peak Pulse Current

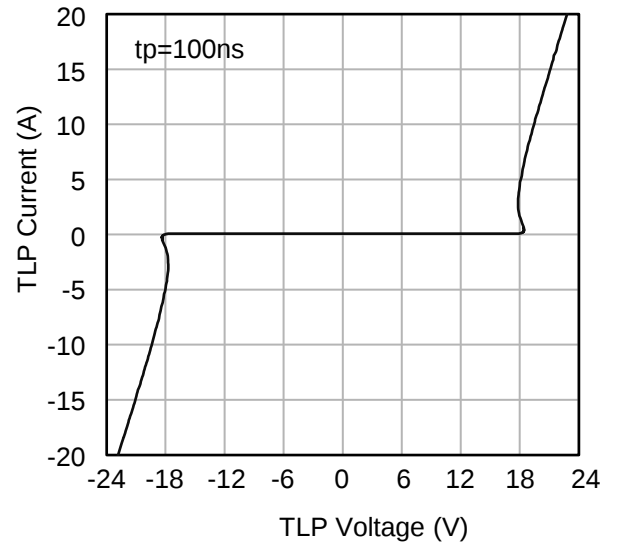
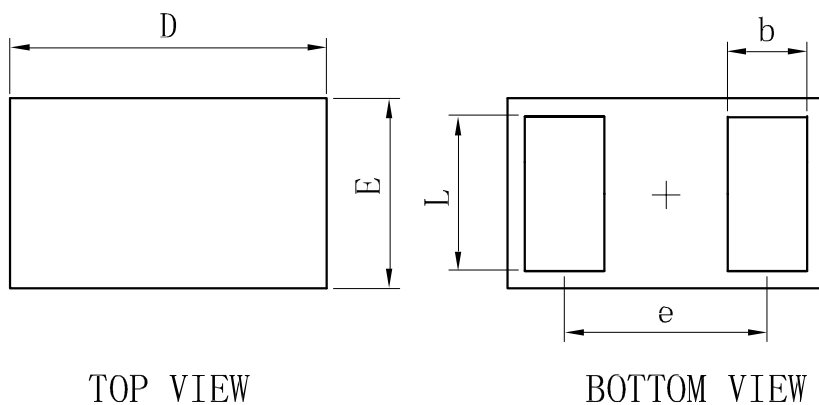


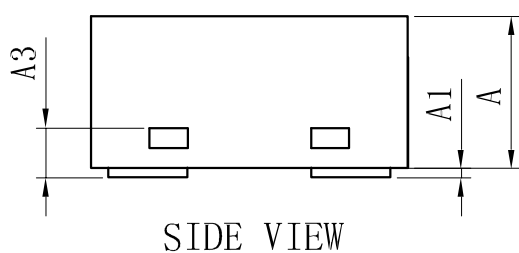
Fig 4. TLP Measurement

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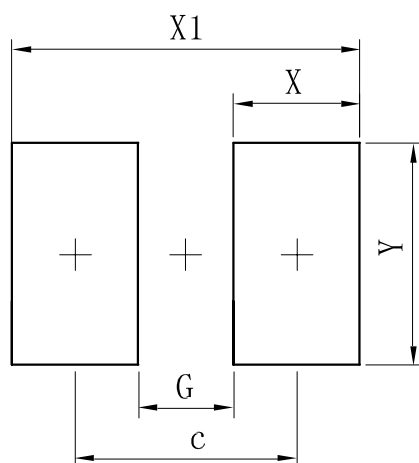
OUTLINE AND DIMENSIONS



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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