

Bidirectional Ultra Low Capacitance TVS Array

DESCRIPTION

The SLESD3C151L Series are ultra low capacitance transient voltage suppressor arrays, designed to protect applications such as portable electronics and SMART phones. This series is available in both unidirectional and bidirectional configurations and is rated at 350 Watts for an 8/20 μ s waveshape.

The SLESD3C151L and Series meets IEC 61000-4-2 (ESD) and IEC 61000-4-4 (EFT) requirements. At higher operating frequencies or faster edge rates, insertion loss and signal integrity are a major concern. This series offers a ultra low capacitance and low leakage current in a miniature SOD-323 package.

FEATURES

- ✧ IEC61000-4-2 (ESD) \pm 15kV (air), \pm 8kV (contact)
- ✧ IEC61000-4-4 (EFT) 40A (5/50 η s)
- ✧ IEC61000-4-5 (Lightning) 12A (8/20 μ s)
- ✧ Protects one I/O line (bidirectional)
- ✧ Low clamping voltage
- ✧ Working voltages :15V
- ✧ Low leakage current
- ✧ Response Time is < 1 ns

MACHANICAL DATA

- ✧ SOD-323 package
- ✧ Flammability Rating: UL 94V-0
- ✧ Packaging: Tape and Reel
- ✧ High temperature soldering guaranteed:260 $^{\circ}$ C/10s
- ✧ Reel size: 7 inch

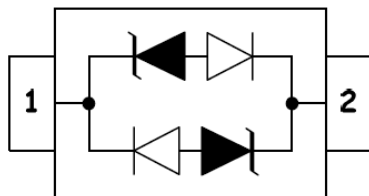
ORDERING INFORMATION

- ✧ Device: SLESD3C151L
- ✧ Package: SOD-323
- ✧ Material: Halogen free
- ✧ Packing: Tape & Reel
- ✧ Quantity per reel: 3,000pcs

APPLICATIONS

- ✧ Cell Phone Handsets and Accessories
- ✧ Microprocessor based equipment
- ✧ Personal Digital Assistants (PDA's)
- ✧ Notebooks, Desktops, and Servers
- ✧ Portable Instrumentation
- ✧ Peripherals
- ✧ USB Interface

PIN CONFIGURATION



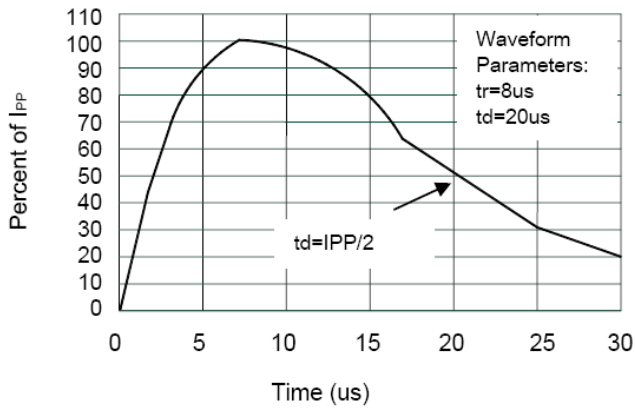
PACKAGE OUTLINE



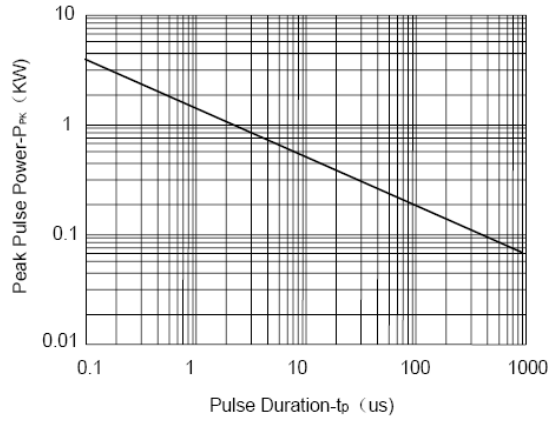
| ABSOLUTE MAXIMUM RATING | | | |
|-------------------------|--|---------------------|--------------|
| Symbol | Parameter | Value | Units |
| V_{ESD} | ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact) | ± 15 ± 8 | kV |
| P_{PP} | Peak Pulse Power (8/20 μ s) | 350 | W |
| T_{OPT} | Operating Temperature | -55/+150 | $^{\circ}$ C |
| T_{STG} | Storage Temperature | -55/+150 | $^{\circ}$ C |
| T_L | Lead Soldering Temperature | 260 | $^{\circ}$ C |

| ELECTRICAL CHARACTERISTICS (Tamb=25 $^{\circ}$ C) | | | | | | | | | | |
|---|----------------|------------|------------|------------|--------------|---------------------|--------------|------------|----------------------------|-----------------------|
| PART NUMBER | DEVICE MARKING | V_{RWM} | $V_B@1mA$ | $V_C@1A$ | $V_C@I_{pp}$ | | $V_C@I_{pp}$ | | I_R (μ A) Max | C_T (pF) Typ. |
| | | (V) Max | (V) Min | (V) Max | (V) Max | Ip p (A)) | (V) Max | Ipp (A) | | |
| SLESD3C151L | EC | 15.0 | 16.7 | 24.0 | 29.0 | 5 | 31.8 | 10 | 1 | 0.8 |

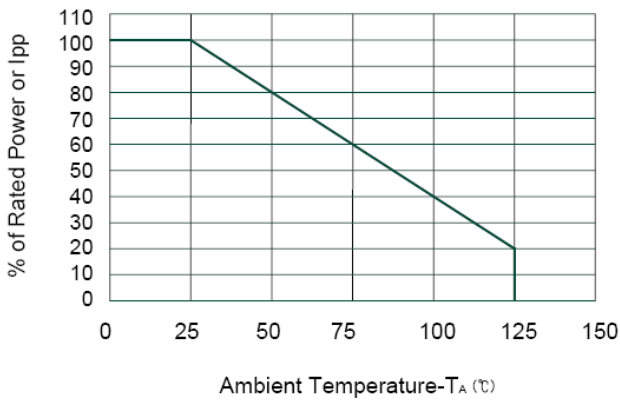
ELECTRICAL CHARACTERISTICS CURVE



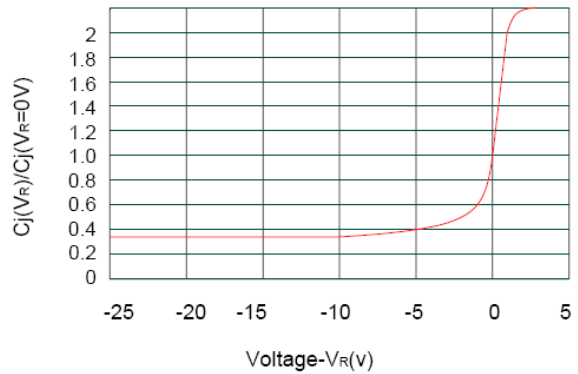
Pulse Waveform



Non-Repetitive Peak Pulse Power vs. Pulse Time

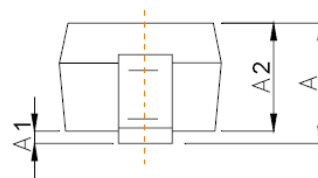
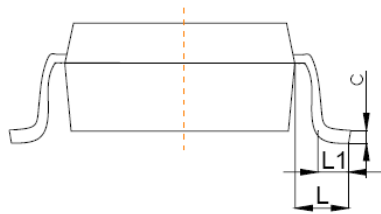
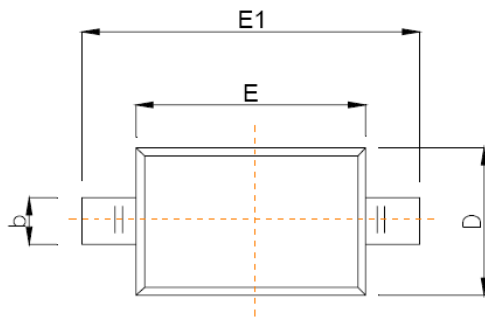


Power Derating Curve

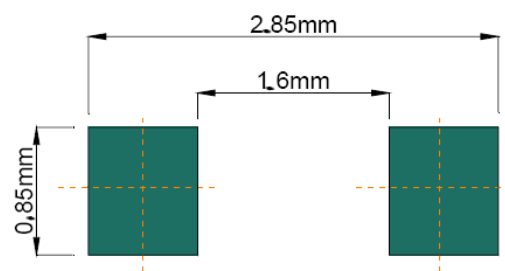


Junction Capacitance vs. Reverse Voltage

SOD-323 PACKAGE OUTLINE DIMENSIONS



| Symbol | Dimensions In Millimeters | |
|----------|---------------------------|-------|
| | Min | Max |
| A | | 1.00 |
| A1 | 0.000 | 0.100 |
| A2 | 0.800 | 0.900 |
| b | 0.250 | 0.350 |
| c | 0.080 | 0.150 |
| D | 1.200 | 1.400 |
| E | 1.600 | 1.800 |
| E1 | 2.500 | 2.700 |
| e | 1.800 | 2.040 |
| L | 0.475 REF | |
| L1 | 0.250 | 0.400 |
| θ | 0° | 8° |



Recommended Pad outline