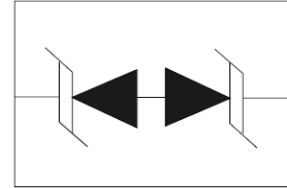


General Description

The LESD8D7.0CA 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.



Features

- Small Body Outline Dimensions
- Low Body Height
- Peak Power up to 80Watts @ 8 x 20μ s Pulse
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
- IEC61000-4-4 Level 4 EFT Protection
- We declare that the material of product compliance with RoHS requirements.

Applications

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

Absolute Ratings (T_{amb}=25°C)

| Symbol | Parameter | Value | Units |
|------------------|---|--|----------|
| P _{PP} | Peak Pulse Power (t _p = 8/20μs) | 80 | 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 ±20 contact discharge ±15 | KV |
| | IEC61000-4-4 (EFT) | 40 | A |
| | ESD Voltage | Per Human Body Model | 16 KV |

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

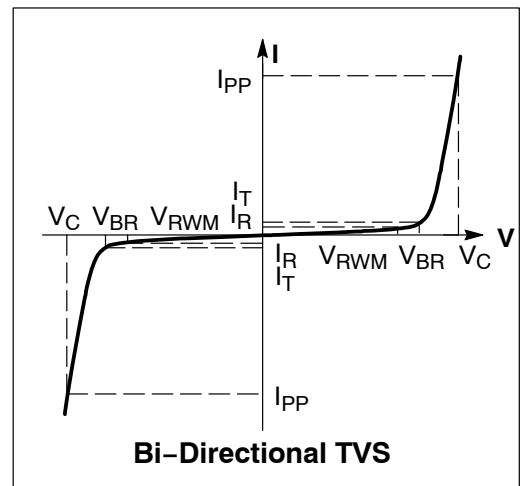
| Device | V_{RWM} (V) | $I_R(\mu A)$ @ V_{RWM} | V_{BR} (V) @ I_T (Note 1) | I_T | V_C (V) @ $I_{PP}=3 A^*$ | V_C (V) @ Max I_{PP}^* | I_{PP} (A)* | P_{PK} (W)* | C (pF) |
|----------------|------------------|-----------------------------|----------------------------------|-------|-------------------------------|-------------------------------|------------------|------------------|-------------|
| | Max | Max | Min | mA | Typ | Max | Max | Max | Typ |
| LESD8D7.0CAT5G | 7.0 | 1.0 | 7.2 | 1.0 | 13 | 16 | 5 | 80 | 16 |

*Surge current waveform per Figure 2.

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

Electrical Parameter

| 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} |
| I_T | Test Current |
| V_{BR} | Breakdown Voltage @ I_T |
| I_F | Forward Current |
| V_F | Forward Voltage @ I_F |



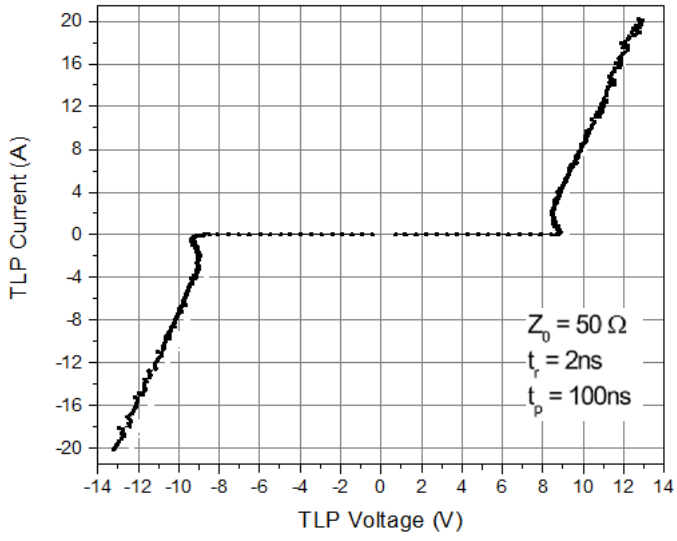


Fig1.TLP Measurement

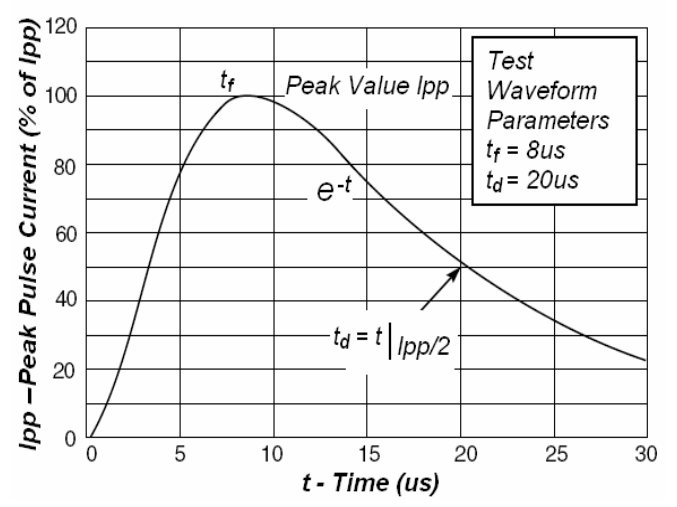


Fig2. Pulse Waveform

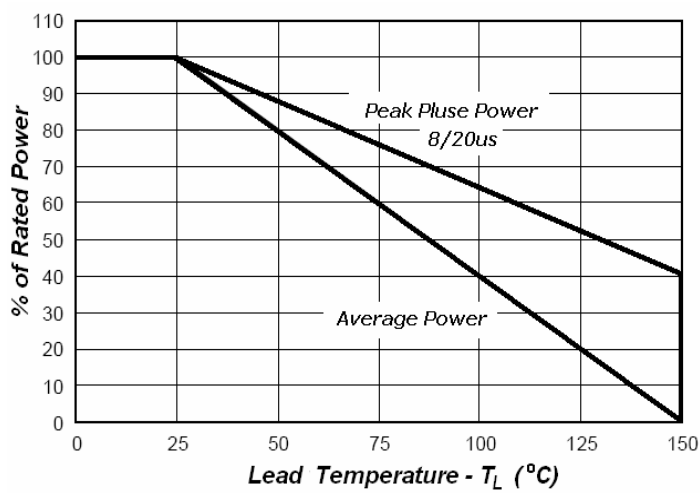
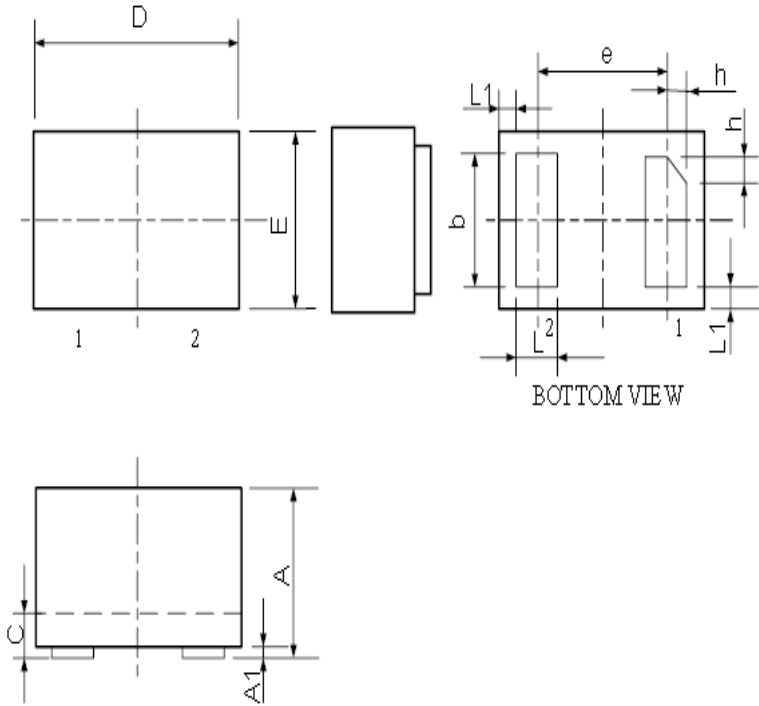


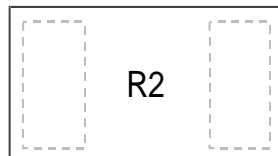
Fig3.Power Derating

SOD-882 PACKAGE OUTLINE DIMENSIONS



| Symbol | Dimensions In Millimeters | |
|--------|---------------------------|---------|
| | Minimum | Maximum |
| A | 0.450 | 0.550 |
| A1 | 0.000 | 0.050 |
| b | 0.45 | 0.55 |
| C | 0.12 | 0.18 |
| D | 0.950 | 1.050 |
| e | 0.65BSC | |
| E | 0.550 | 0.650 |
| L | 0.200 | 0.300 |
| L1 | 0.05REF | |
| h | 0.07 | 0.17 |

Marking



Ordering information

| Order code | Package | Baseqty | Deliverymode |
|--------------------|---------|---------|---------------|
| UMW LESD8D7.0CAT5G | SOD-882 | 10000 | Tape and reel |

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