

## ESD Protection –ESD12VD8B

### Description

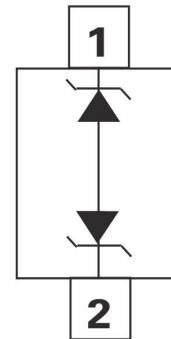
The ESD12VD8B is designed to protect voltage sensitive components from ESD. Excellent clamping capability, low leakage, and fast response time provide best in class protection on designs that are exposed to ESD. Because of its small size, it is suited for use in cellular phones, MP3 players, digital cameras and many other portable applications where board space is at a premium.



### Feature

- Case : SOD882 package
- Low Leakage current
- Response Time is Typically < 1.0 ns
- Bi-directional ESD protection
- 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 compliance with RoHS requirements.

### Schematic & PIN Configuration



### Applications

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

### Absolute Maximum Ratings

| Parameter   | Symbol    | Value      | Units |
|---|-----------|------------|-------|
| IEC61000-4-2 (Contact)                                  | $V_{ESD}$ | ±16        | kV    |
| IEC61000-4-2 (Air)                                      | $V_{ESD}$ | ±16        | kV    |
| Total Power Dissipation on FR-5 Board (Note 1)@ TA=25°C | $P_D$     | 200        | mw    |
| Operating Temperature                                   | $T_J$     | -55 to 150 | °C    |
| Lead Solder Temperature – Maximum (10Second Duration)   | $T_L$     | 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.

**Electrical Characteristics (T =25° C)**

| V <sub>RWM</sub><br>(V) | I <sub>R</sub><br>(μA)<br>@ V <sub>RWM</sub> | V <sub>BR</sub><br>(V)<br>@I <sub>T</sub> (Note 2) |     | I <sub>T</sub><br>(mA) | I <sub>PP</sub><br>(A)<br>Note 3 | V <sub>C</sub><br>(V)<br>Note 3 | P <sub>PK</sub><br>W<br>8/20μS | C<br>pF         |     |
|-------------------------|--|--|-----|------------------------|----------------------------------|---------------------------------|--------------------------------|-----------------|-----|
|                         |  | Min  | Max |                        |                                  |                                 |                                | T <sub>yp</sub> | Max |
| Max<br>12               | Max<br>1                                     | 13.3   | 16  | 1                      | Max<br>4                         | Max<br>18                       | Max<br>72                      | 6.5             | 9.5 |

- V<sub>BR</sub> is measured with a pulse test current I<sub>T</sub> at an ambient temperature of 25°C
- Surge current waveform per Figure 3.

**Rating & Characteristic Curves**

Figure 1 - Electrical Parameter

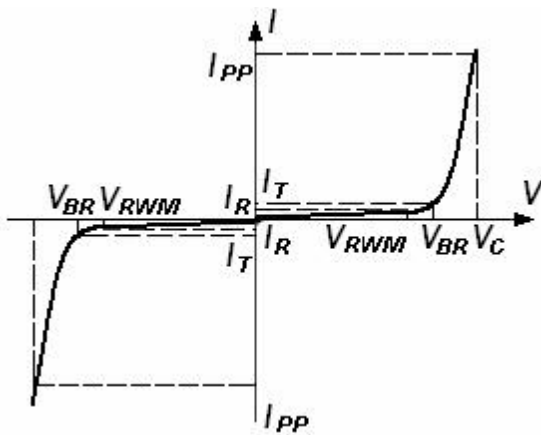


Figure 2- ESD Waveform

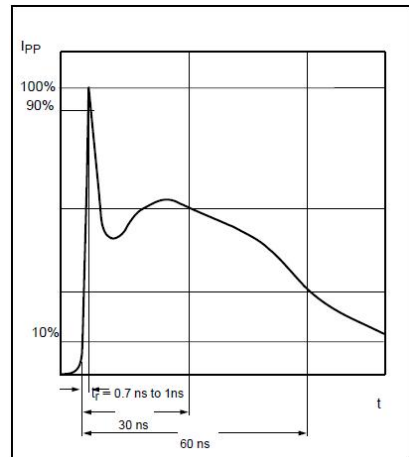
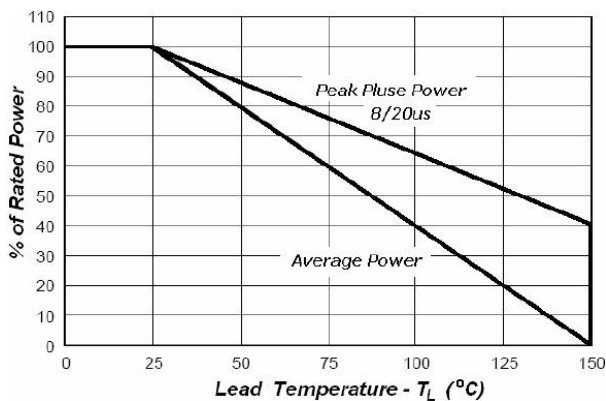
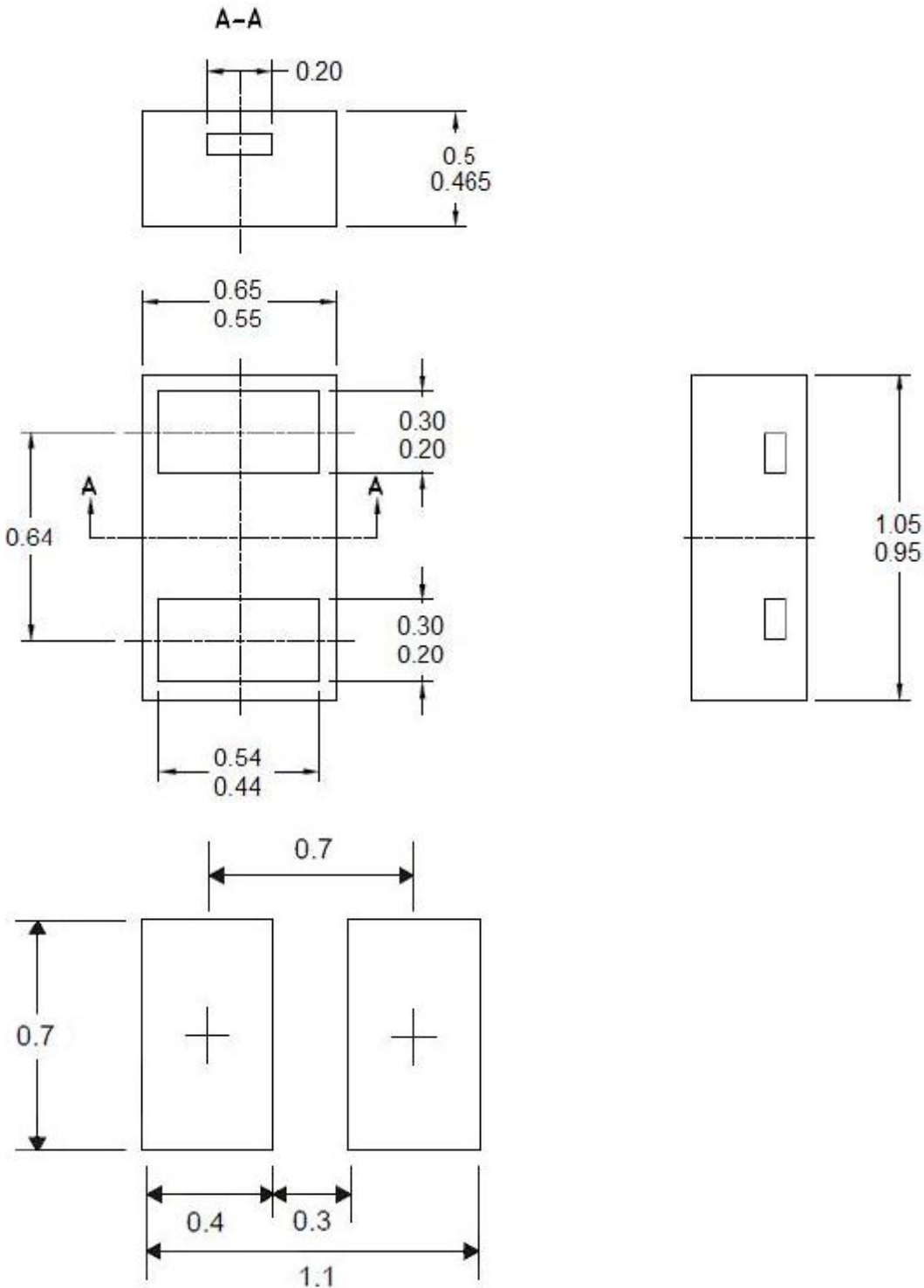


Figure 3 - Power Derating



PACKAGE OUTLINE DIMENSIONS in millimeters :SOD882



**Disclaimer**

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.

单击下面可查看定价，库存，交付和生命周期等信息

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