

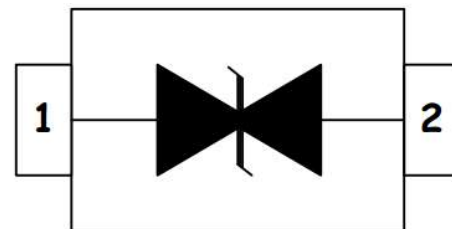
Features

- Ultra low leakage: nA level
- Operating voltage: 15V
- Low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 30\text{kV}$
 - Contact discharge: $\pm 30\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning) 17A (8/20 μs)
- RoHS Compliant

Dimensions SOD-323



Pin Configuration



Applications

- USB 2.0 power and data line
- Set-top box and digital TV
- Digital video interface (DVI)
- Notebook Computers
- SIM Ports
- 10/100 Ethernet

Mechanical Characteristics

- Package: SOD-323
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 3,000pcs
- Reel Size: 7 inch

Absolute Maximum Ratings (T_{amb}=25°C unless otherwise specified)

| Parameter | Symbol | Value | Unit |
|--|------------------|-------------|------|
| Peak Pulse Power (8/20 μs) | P _{pp} | 600 | W |
| ESD per IEC 61000-4-2 (Air) | V _{ESD} | ± 30 | Kv |
| ESD per IEC 61000-4-2 (Contact) | | ± 30 | |
| Operating Temperature Range | T _J | -55 to +125 | °C |
| Storage Temperature Range | T _{STJ} | -55 to +150 | °C |

Electrical Characteristics (TA=25°C unless otherwise specified)

| Part Number | Device Marking | V _{RWM} (V) | V _{BR} (V) | I _T (mA) | V _C @1A | V _C | | I _R μA (Max) | C (Pf) (Typ.) |
|-------------|----------------|----------------------|---------------------|---------------------|--------------------|----------------|------|-------------------------|---------------|
| | | | | | | (Max) | (@A) | | |
| SD15CW | 15C | 15 | 16.7 | 1 | 24 | 34 | 17 | 1 | 68 |

Characteristic Curves

Fig1. 8/20μs Pulse Waveform



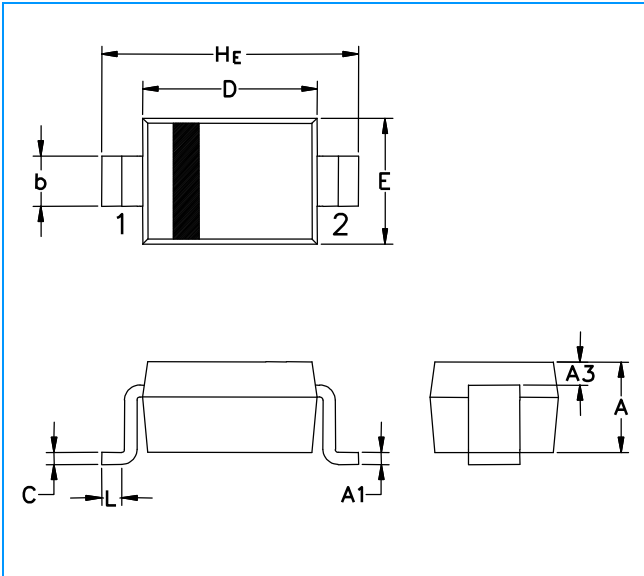
Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)



Fig3. Power Derating Curve

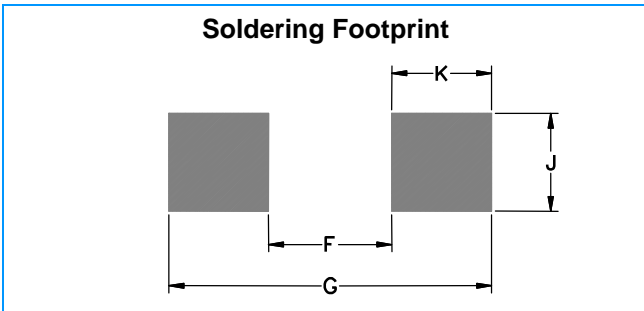


SOD-323 Package Outline & Dimensions



| Symbol | Millimeters | | | Inches | | |
|----------------------|-------------|------|-------|-----------|-------|-------|
| | Min. | Nom. | Max. | Min. | Nom. | Max. |
| A | 0.80 | 0.90 | 1.15 | 0.031 | 0.035 | 0.045 |
| A1 | 0.001 | 0.05 | 0.15 | 0.004 | 0.002 | 0.006 |
| A3 | 0.15 REF | | | 0.006 REF | | |
| b | 0.25 | 0.32 | 0.45 | 0.010 | 0.012 | 0.018 |
| C | 0.100 | 0.12 | 0.150 | 0.004 | 0.005 | 0.006 |
| D | 1.60 | 1.70 | 1.95 | 0.063 | 0.066 | 0.077 |
| E | 1.10 | 1.25 | 1.50 | 0.043 | 0.049 | 0.059 |
| L | 0.08 | | | 0.003 | | |
| H_E | 2.50 | 2.50 | 2.85 | 0.095 | 0.098 | 0.112 |

Soldering Footprint



| Symbol | Millimeters | Inches |
|----------|-------------|--------|
| F | 1.60 | 0.063 |
| G | 2.20 | 0.087 |
| J | 0.60 | 0.024 |
| K | 0.60 | 0.024 |