

Features

- 450W peak pulse power (8/20 μ s)
- Ultra low capacitance: 1pF typical
- Ultra low leakage: nA level
- Low operating voltage: 5V
- Low clamping voltage
- Protects one power line or data line
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: ± 15 kV
Contact discharge: ± 8 kV
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning) 15A (8/20 μ s)
- RoHS Compliant

Applications

- USB Ports
- Smart Phones
- Wireless Systems
- Ethernet 10/100/1000 Base T

Mechanical Characteristics

- Package: SOD-323
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below
- Marking Information: See Below

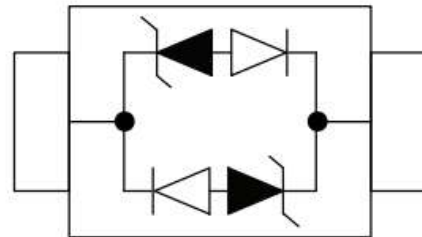
Absolute Maximum Ratings (T_{amb}=25°C unless otherwise specified)

| Parameter | Symbol | Value | Unit |
|---------------------------------|------------------|-------------|------|
| Peak Pulse Power (8/20 μ s) | P _{pp} | 300 | W |
| ESD per IEC 61000-4-2 (Air) | V _{ESD} | ± 15 | Kv |
| ESD per IEC 61000-4-2 (Contact) | | ± 8 | |
| Operating Temperature Range | T _J | -55 to +125 | °C |
| Storage Temperature Range | T _{STJ} | -55 to +150 | °C |

Dimensions SOD-323



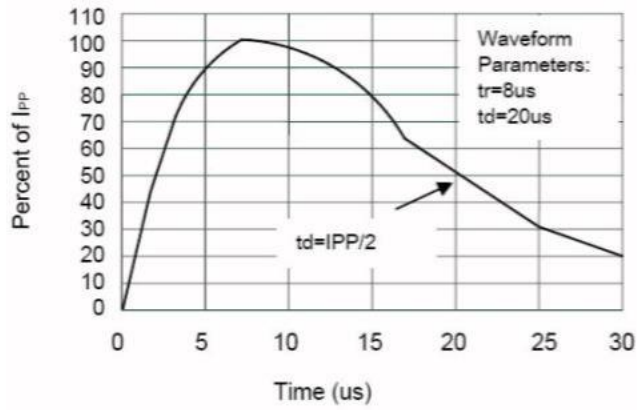
Pin Configuration



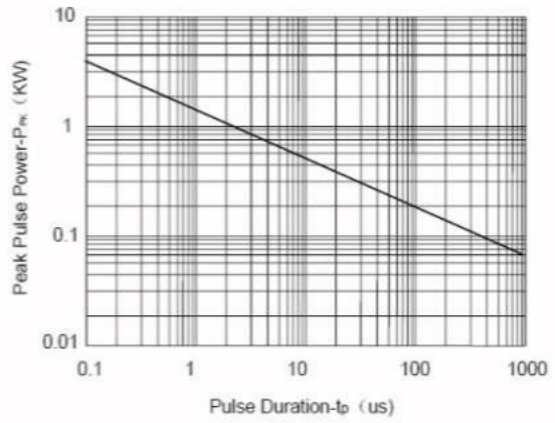
Electrical Characteristics (TA=25°C unless otherwise specified)

| 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) | | |
| LC08CI | BC | 8.0 | 8.5 | 1 | 13.4 | 25 | 15 | 1 | 1 |

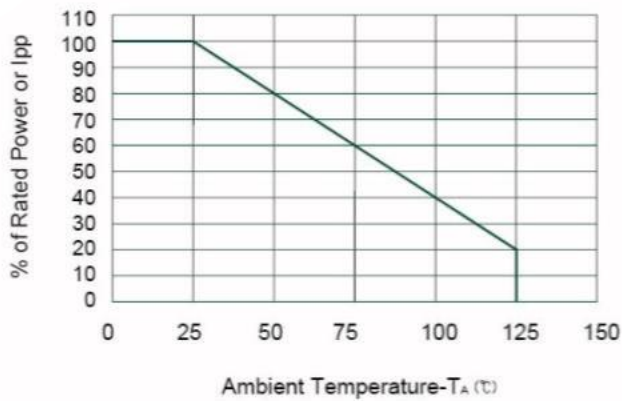
Typical Performance Characteristics (TA=25°C unless otherwise Specified)



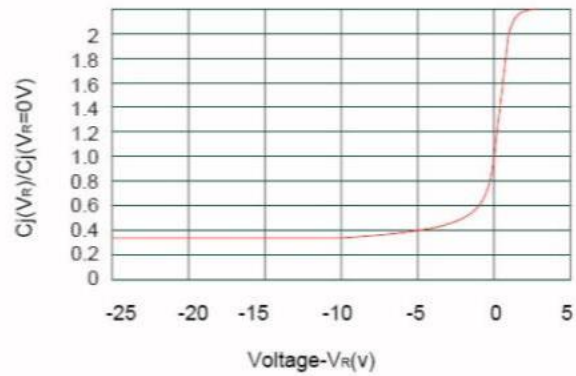
Pulse Waveform



Non-Repetitive Peak Pulse Power vs. Pulse Time

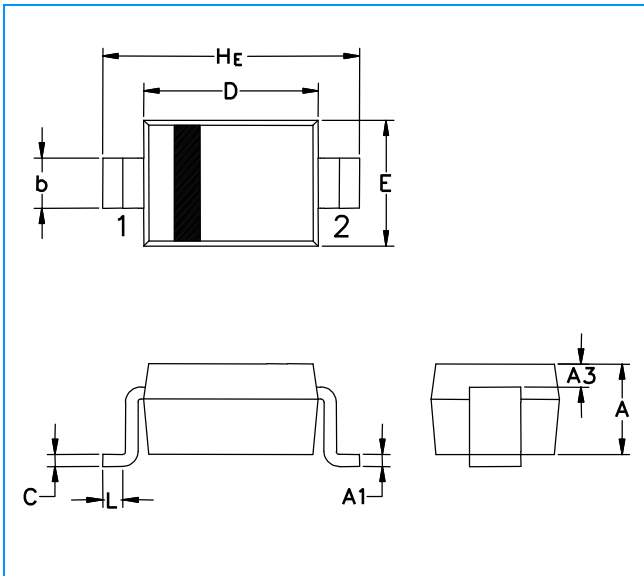


Power Derating Curve



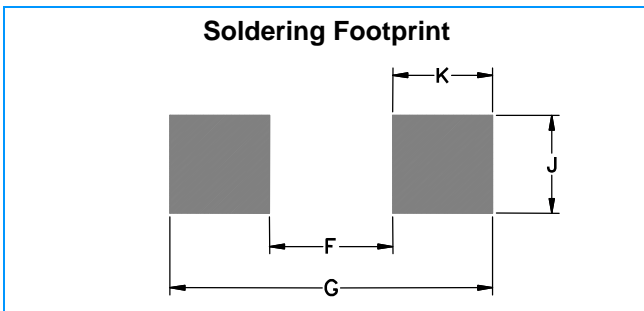
Junction Capacitance vs. Reverse Voltage

SOD-323 Package Outline & Dimensions



| Symbol | Millimeters | | | Inches | | |
|--------|-------------|------|-------|-----------|-------|-------|
| | Min. | Nom. | Max. | Min. | Nom. | Max. |
| A | 0.80 | 0.90 | 1.00 | 0.031 | 0.035 | 0.040 |
| A1 | 0.00 | 0.05 | 0.10 | 0.000 | 0.002 | 0.004 |
| A3 | 0.15 REF | | | 0.006 REF | | |
| b | 0.25 | 0.32 | 0.40 | 0.010 | 0.012 | 0.016 |
| C | 0.089 | 0.12 | 0.177 | 0.003 | 0.005 | 0.007 |
| D | 1.60 | 1.70 | 1.80 | 0.062 | 0.066 | 0.070 |
| E | 1.15 | 1.25 | 1.35 | 0.045 | 0.049 | 0.053 |
| L | 0.08 | | | 0.003 | | |
| HE | 2.30 | 2.50 | 2.70 | 0.090 | 0.098 | 0.105 |

Soldering Footprint



| Symbol | Millimeters | Inches |
|--------|-------------|--------|
| F | 1.60 | 0.063 |
| G | 2.85 | 0.112 |
| J | 0.83 | 0.033 |
| K | 0.63 | 0.025 |

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