

Features

- 350W peak pulse power (8/20 μ s)
- Ultra low capacitance: 1.0 pF typical
- Ultra low leakage: nA level
- Low clamping voltage
- Protects one power line or data line
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: \pm 30kV
Contact discharge: \pm 30kV
 - IEC61000-4-4 (EFT) 40A (5/50ns)
- RoHS Compliant

Applications

- USB Ports
- SIM Ports
- Smart Phones
- Wireless Systems
- Set-top box and digital TV
- Digital video interface (DVI)
- Ethernet 10/100/1000 Base T

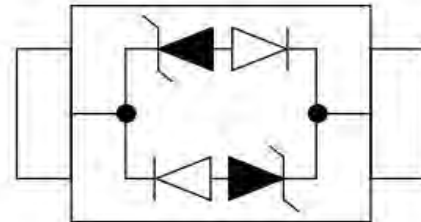
Mechanical Characteristics

- 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
- Quantity per reel: 3,000pcs
- Reel size: 7 inch
- Device Marking: DC

Dimensions SOD-323



Pin Configuration



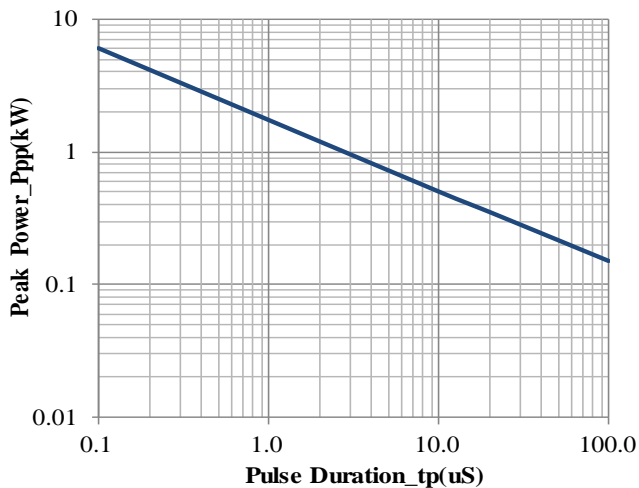
Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

| Parameter | Symbol | Value | Unit |
|---------------------------------|------------------|-------------|------|
| Peak Pulse Power (8/20 μ s) | Ppp | 350 | W |
| ESD per IEC 61000-4-2 (Air) | V _{ESD} | \pm 30 | KV |
| ESD per IEC 61000-4-2 (Contact) | | \pm 30 | |
| Operating Temperature Range | T _J | -45 to +85 | °C |
| Storage Temperature Range | T _{STJ} | -55 to +150 | °C |

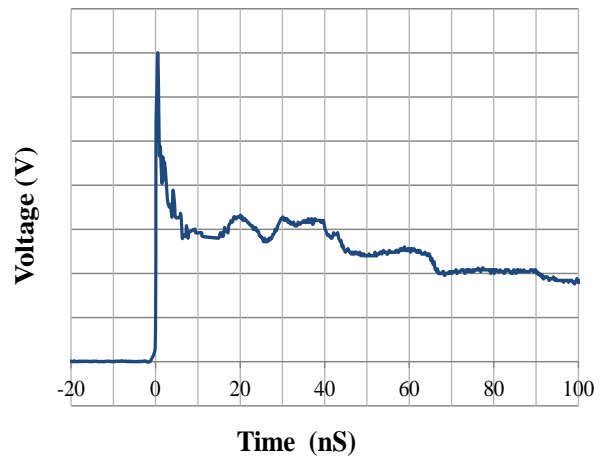
Electrical Characteristics (TA=25°C unless otherwise specified)

| Parameter | Symbol | Test Condition | Min | Typ | Max | Unit |
|-------------------------|------------------|--|------|-----|------|------|
| Reverse Working Voltage | V _{RWM} | | | | 12.0 | V |
| Breakdown Voltage | V _{BR} | I _T = 1mA | 13.3 | | | V |
| Reverse Leakage Current | I _R | V _{RWM} = 12 V | | | 0.2 | μA |
| Clamping Voltage | V _C | I _{PP} = 1A (8 x 20μs pulse) | | | 18 | V |
| Clamping Voltage | V _C | I _{PP} = 12A (8 x 20μs pulse) | | | 29 | V |
| Junction Capacitance | C _J | V _R = 0V, f = 1MHz | | 1 | | pF |

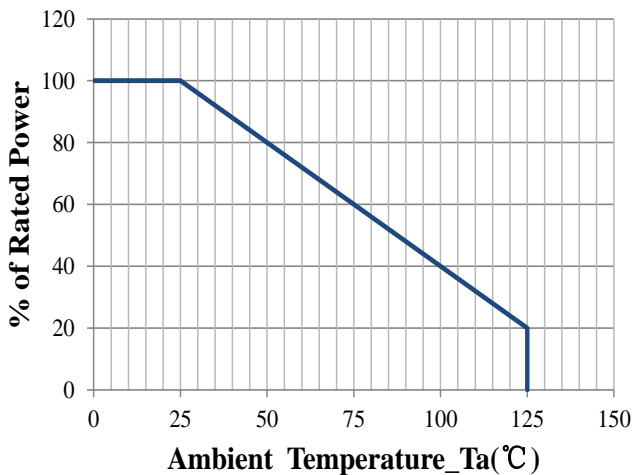
Characteristic Curves



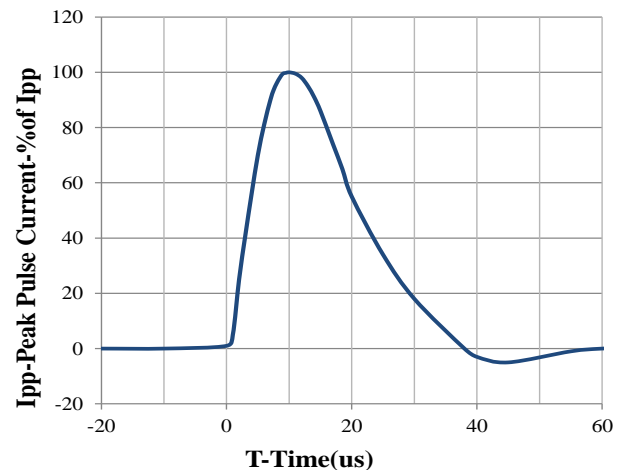
Peak Pulse Power vs. Pulse Time



IEC61000-4-2 Pulse Waveform

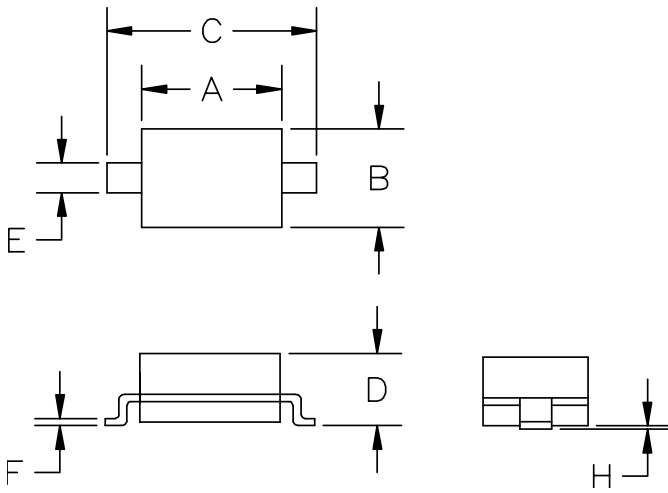


Power Derating Curve



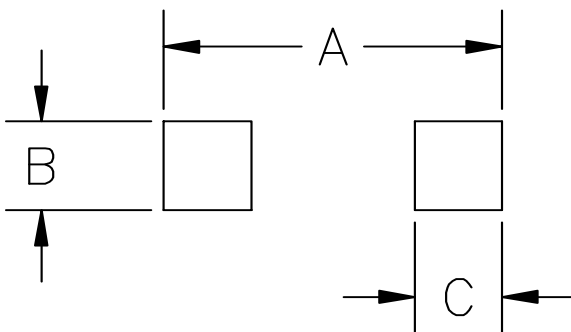
8 X 20us Pulse Waveform

SOD-323 Package Outline Drawing



| SYM | DIMENSIONS | | | |
|-----|-------------|------|--------|-------|
| | MILLIMETERS | | INCHES | |
| | MIN | MAX | MIN | MAX |
| A | 1.50 | 1.80 | 0.060 | 0.071 |
| B | 1.20 | 1.40 | 0.045 | 0.054 |
| C | 2.30 | 2.70 | 0.090 | 0.107 |
| D | - | 1.10 | - | 0.043 |
| E | 0.30 | 0.40 | 0.012 | 0.016 |
| F | 0.10 | 0.25 | 0.004 | 0.010 |
| H | - | 0.10 | - | 0.004 |

Suggested Land Pattern



| SYM | DIMENSIONS | |
|-----|-------------|--------|
| | MILLIMETERS | INCHES |
| A | 3.15 | 0.120 |
| B | 0.80 | 0.031 |
| C | 0.80 | 0.031 |