

Features

- * 250W peak pulse power (8/20 μ s)
- * Low operating :5V
- * Ultra low capacitance: 0.8pF 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: ± 30 kV
Contact discharge: ± 30 kV
 - IEC61000-4-4 (EFT) 40A (5/50ns)
- * RoHS Compliant

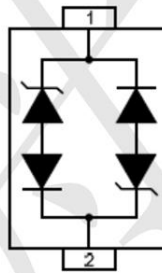
Mechanical Characteristics

- * 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
- * Shipping Qty :3000pcs/7Inch Tape & Reel

Applications

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

Dimensions and Pin Configuration



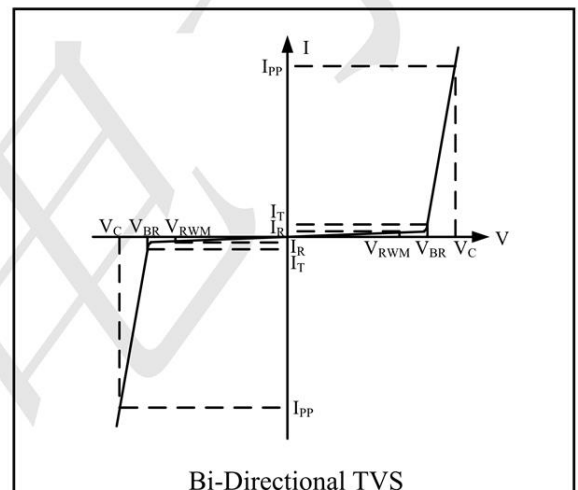
Marking: AC Or ACL

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

| Parameter | Symbol | Value | Unit |
|---------------------------------|--------|-------------|------|
| ESD per IEC 61000-4-2 (Air) | VESD | ±30 | kV |
| ESD per IEC 61000-4-2 (Contact) | | ±30 | |
| Operating Temperature Range | TJ | -55 to +125 | °C |
| Storage Temperature Range | Tstg | -55 to +150 | °C |

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

| Symbol | Parameter |
|------------------|--|
| V _{RWM} | Nominal Reverse Working Voltage |
| I _R | Reverse Leakage Current @ V _{RWM} |
| V _{BR} | Reverse Breakdown Voltage @ I _T |
| I _T | Test Current for Reverse Breakdown |
| V _C | Clamping Voltage @ I _{PP} |
| I _{PP} | Maximum Peak Pulse Current |
| C _{ESD} | Parasitic Capacitance |
| V _R | Reverse Voltage |
| f | Small Signal Frequency |



| Parameter | Symbol | Test Condition | Min | Typ | Max | Unit |
|-------------------------|------------------|--|-----|-----|-----|------|
| Reverse Working Voltage | V _{RWM} | | | | 5 | V |
| Breakdown Voltage | V _{BR} | I _T = 1mA | 6 | | | V |
| Reverse Leakage Current | I _R | V _{RWM} = 5V | | | 0.2 | μA |
| Clamping Voltage | V _C | I _{PP} = 1A (8 x 20μs pulse) | | | 9 | V |
| Clamping Voltage | V _C | I _{PP} = 14A (8 x 20us pulse) | | 16 | | V |
| Junction Capacitance | C _J | V _R = 0V, f = 1MHz | | 0.8 | | pF |

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

Fig1. 8/20 μs Pulse Waveform

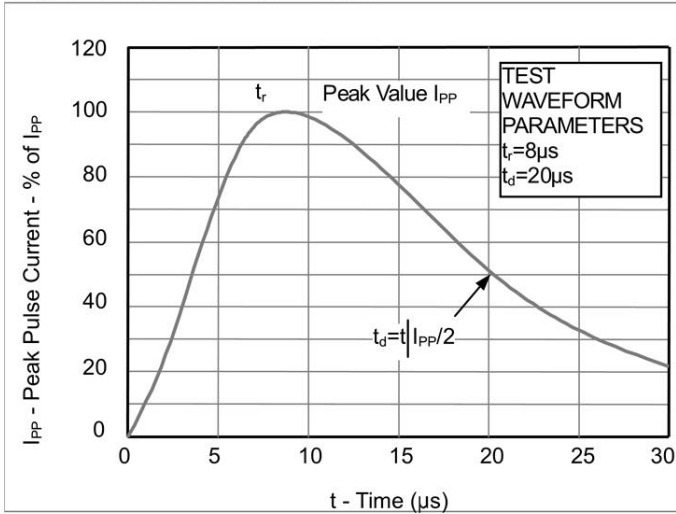


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

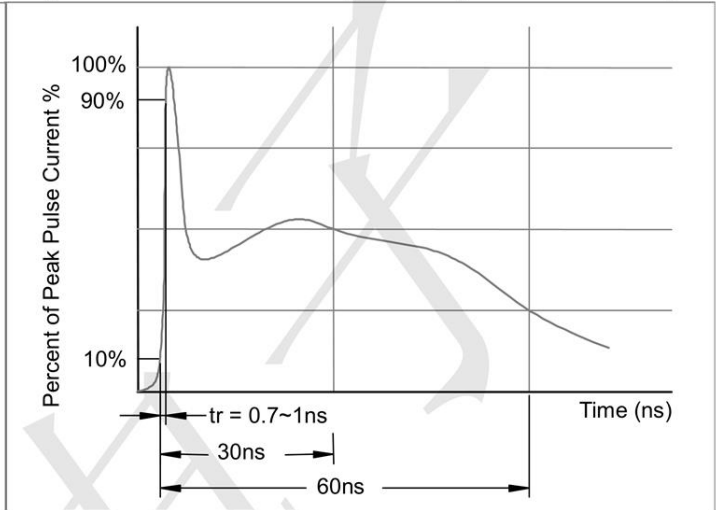
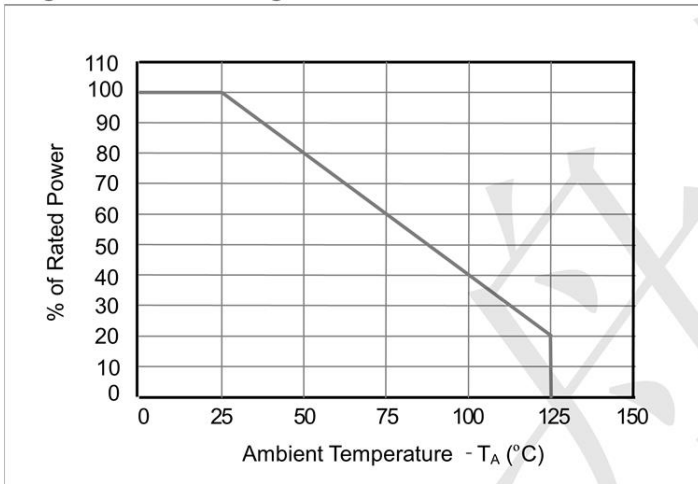
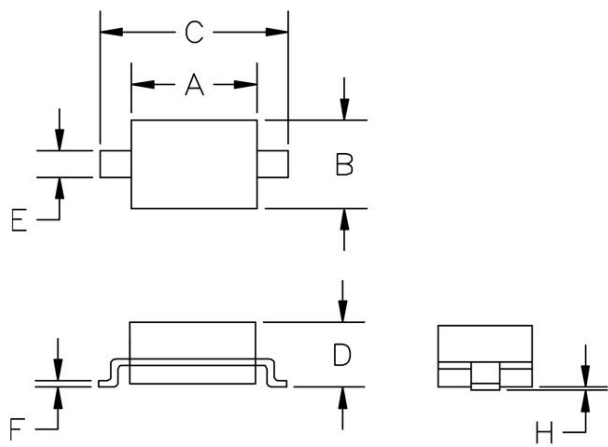


Fig3. Power Derating Curve

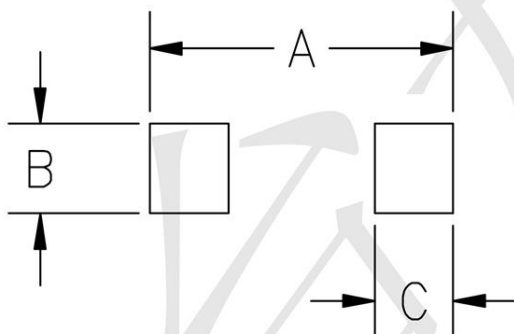


Outline Drawing - SOD-323



| 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 |

Land Pattern - SOD-323



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