

Features

- Ultra low capacitance: 0.5pF typical
- Ultra low leakage: nA level
- Low operating voltage: 5V
- Low clamping voltage
- 3-pin leadless package
- Up to 2-line protects
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: $\pm 30\text{kV}$
Contact discharge: $\pm 25\text{kV}$
 - IEC61000-4-5 (Lightning) 4A (8/20 μs)
 - IEC61000-4-4 (EFT) 40A (5/50ns)
- RoHS Compliant

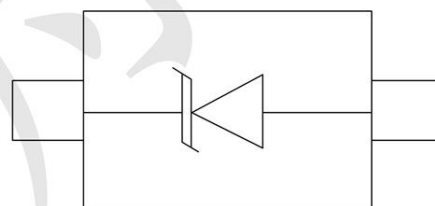
Mechanical Characteristics

- Package: SOD-923(0402)
- Ultra low leakage: nA level
- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
Shipping Qty :8000 Or 10000 /7Inch Tape & Reel

Applications

- Mobile Phones and Accessories
- Battery Protection
- USB VBus
- Power Line Protection
- Hand Held Portable Applications

Dimensions and Pin Configuration



SOD923

Marking: D* Or X

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

| Parameter | Symbol | Value | Unit |
|---------------------------------|--------|-------------|------|
| Peak Pulse Power (8/20μs) | Ppk | 80 | W |
| Peak Pulse Current (8/20μs) | IPP | 4.5 | A |
| ESD per IEC 61000-4-2 (Air) | VESD | ±20 | kV |
| ESD per IEC 61000-4-2 (Contact) | | ±15 | |
| Operating Temperature Range | TJ | -55 to +125 | °C |
| Storage Temperature Range | Tstg | -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} | | | | 5 | V |
| Breakdown Voltage | V _{BR} | I _T = 1mA(Pin1-Pin2) | 5.4 | 6.7 | 8.5 | V |
| Reverse Leakage Current | I _R | V _{RWM} = 5.0V(Pin2-Pin1) | | | 0.08 | μA |
| Clamping Voltage | V _C | I _{PP} = 1A (8 x 20us pulse) (Pin1-Pin2) | | | 9 | V |
| Clamping Voltage | V _C | I _{PP} = 4A (8 x 20us pulse) (Pin1-Pin2) | | | 15 | V |
| Junction Capacitance | C _J | V _R = 0V, f = 1MHz | | 0.5 | | pF |

Characteristic Curves

Fig1. 8/20 μ s Pulse Waveform

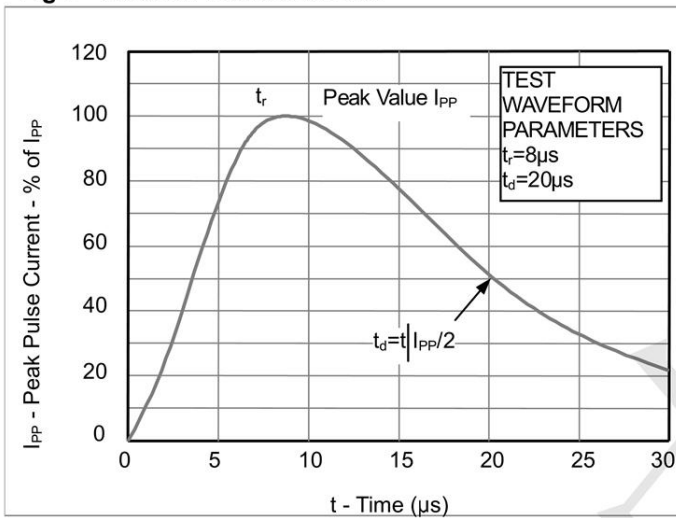


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

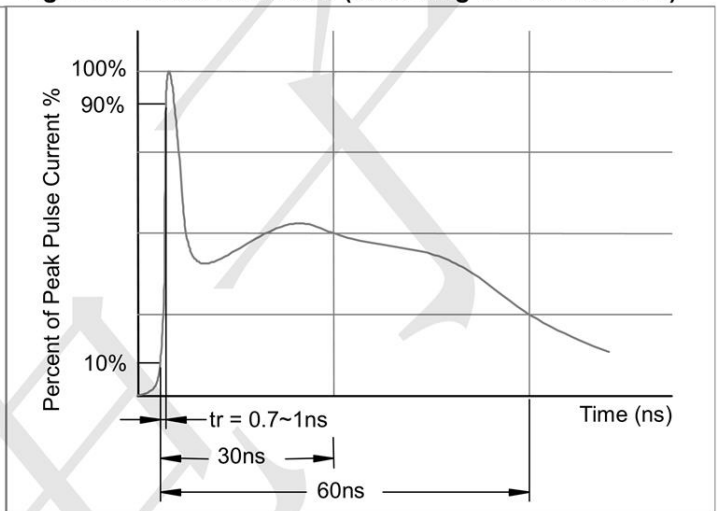
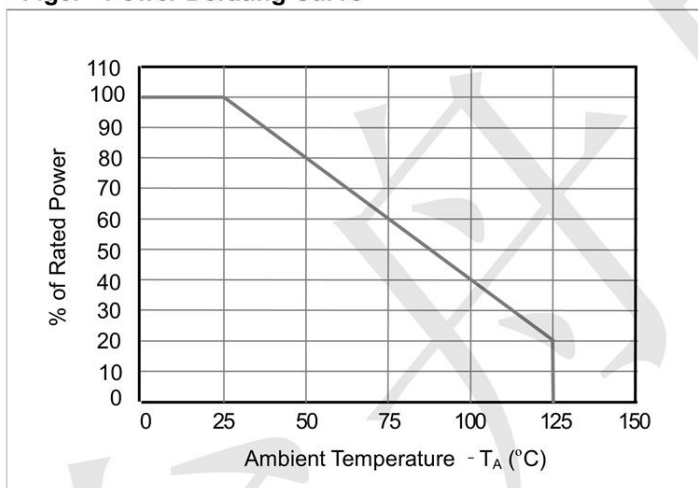
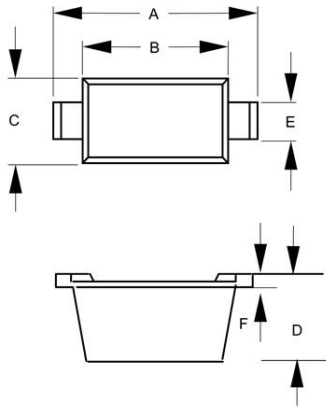


Fig3. Power Derating Curve

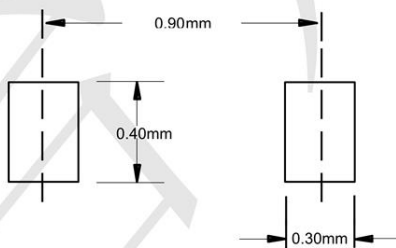


Outline Drawing - SOD-923(0402)



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|------|------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | .037 | .041 | 0.95 | 1.05 | |
| B | .030 | .033 | 0.75 | 0.85 | |
| C | .022 | .026 | 0.55 | 0.65 | |
| D | .014 | .017 | 0.36 | 0.43 | |
| E | .006 | .010 | 0.15 | 0.25 | |
| F | .003 | .007 | 0.07 | 0.17 | |

Land Pattern - SOD-923(0402)



单击下面可查看定价，库存，交付和生命周期等信息

[>>TECH PUBLIC\(台舟\)](#)