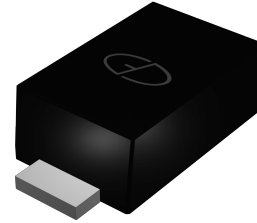


Features

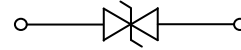
- 50 Watts peak pulse power ($t_p = 8/20\mu s$)
- SOD-923 package
- Bidirectional configurations
- Protects one I/O port
- Low clamping voltage
- Low Leakage current
- Protection one data/power line to:
 - IEC 61000-4-2 $\pm 30KV$ contact $\pm 30KV$ air
 - IEC 61000-4-4 (EFT) 40A (5/50ns)
 - IEC 61000-4-5 (Lightning) 5A (8/20 μs)
- RoHS compliant



SOD-923

Applications

- Cell Phone
- PDA
- Notebook
- Digital Cameras
- Portable Instrumentation
- Audio and video equipment



Schematic Diagram

Absolute Maximum Ratings

($T_A=25^\circ C$ unless otherwise specified)

| Parameter | Symbol | Value | Unit |
|--|-----------|-------------|------------|
| Peak Pulse Power ($T_P=8/20\mu S$) | P_{PP} | 50 | W |
| Peak Pulse Current ($t_P = 8/20\mu S$) | I_{PP} | 5 | A |
| Junction Temperature | T_J | -55 to +125 | $^\circ C$ |
| Storage Temperature | T_{STG} | -55 to +150 | $^\circ C$ |

Electrical Characteristics

($T_A=25^\circ C$ unless otherwise specified)

| Parameter | Symbol | Condition | Min | Typ | Max | Unit |
|---------------------------|-----------|----------------------------|-----|-----|-----|---------|
| Reverse stand-off Voltage | V_{RWM} | | - | - | 3.3 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_T=1mA$ | 5 | - | - | V |
| Reverse Leakage Current | I_R | $V_R=3.3V$ | - | - | 1 | μA |
| Clamping Voltage | V_C | $I_{PP}=5A, T_P=8/20\mu S$ | - | 8.4 | 10 | A |
| Junction Capacitance | C_J | $V_R=0V, f=1MHz$ | - | 15 | - | pF |

Typical Characteristic Curves

Fig.1 Peak Pulse Power Rating Curve

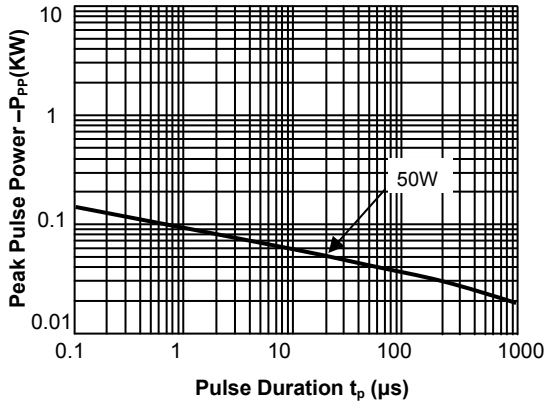


Fig.2 Pulse Derating Curve

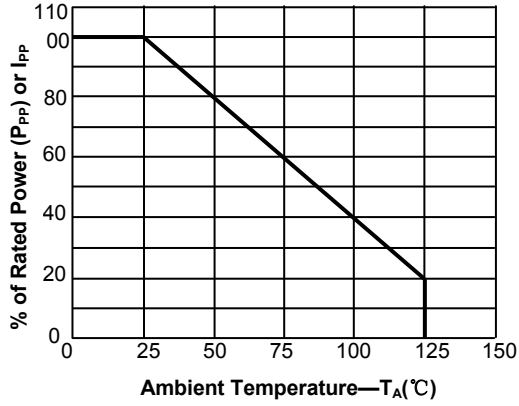


Fig.3 Pulse Waveform-8/20μs

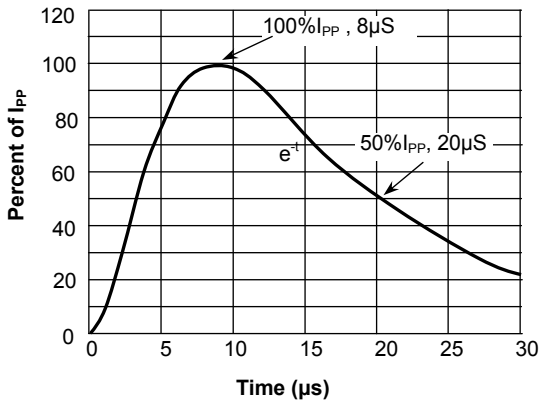
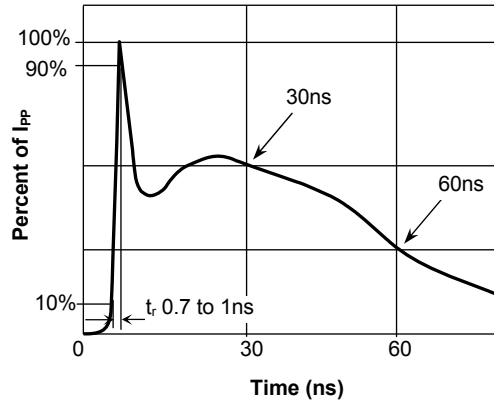
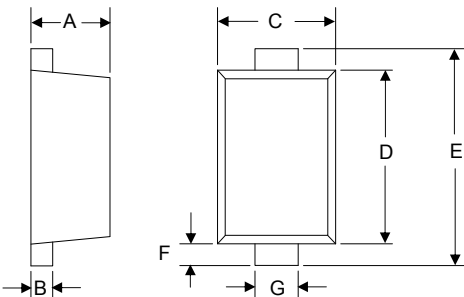


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)



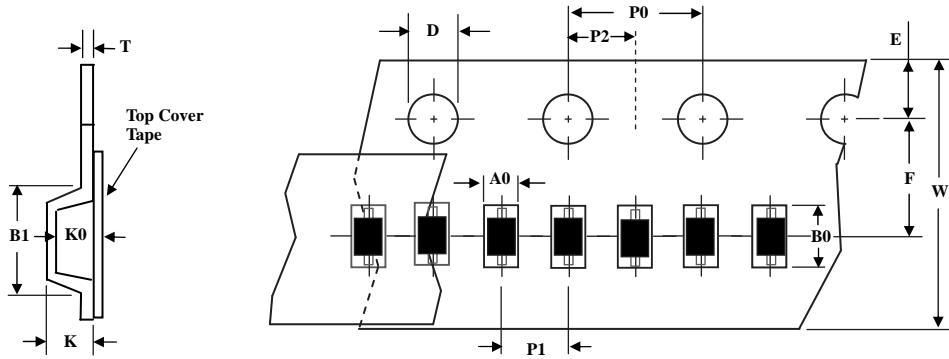
Product Dimensions



SOD-923

| Dim | millimeters | |
|-----|-------------|------|
| | min | max |
| A | 0.34 | 0.40 |
| B | 0.07 | 0.17 |
| C | 0.55 | 0.65 |
| D | 0.75 | 0.85 |
| E | 0.95 | 1.05 |
| F | 0.05 | 0.15 |
| G | 0.15 | 0.25 |

Package Informations



| TapeSize(W) | B1 max | D | E | F | K max | P0 | P1 | P2 | T max | W max |
|-------------|--------|-----------|----------|----------|-------|---------|----------|----------|-------|-------|
| 8 | 4.55 | 1.55±0.05 | 1.75±0.1 | 3.5±0.05 | 2.4 | 4.0±0.1 | 2.0±0.05 | 2.0±0.05 | 0.6 | 8.3 |

Note:1. Unit : mm

2. A0, B0, and K0 are determined by component size. The clearance between the components and the cavity must be within 0.05mm min to 0.50 mm max. The component cannot rotate more than 10° within the determined cavity.

Order Information

| Device | Package | Marking | Carrier | Quantity | HSF Status |
|---------------|---------|---------|-------------|----------------|----------------|
| SES3V3D923-2B | SOD-923 | 3B | Tape & Reel | 8000pcs / Reel | RoHS compliant |