

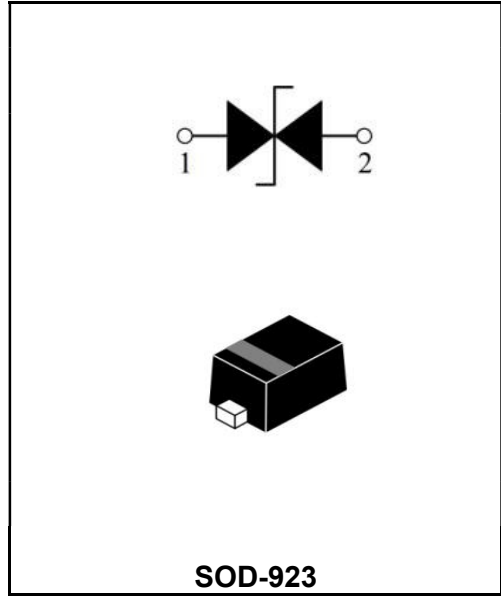
Transient Voltage Suppressor

Features

- ◆80Watts peak pulse power $t_p = 8/20\mu s$
- ◆Bidirectional configurations
- ◆Solid-state silicon-avalanchetechnology
- ◆Low clamping volta
- ◆Low leakage current
- ◆IEC 61000-4-2 $\pm 30KV$ contact $\pm 30KV$ Air
- ◆IEC 61000-4-4 (EFT) 40A (5/50us)
- ◆IEC 61000-4-5 (Lightning 8/20 μs): 8A

Application

- ◆Microprocessor based equipm
- ◆Personal Digital Assistants (PDA'S)
- ◆Notebooks, Desktops, and Servers
- ◆Portable Instrumentat
- ◆Pagers Peripher



Order Information

| Part Number | Package | Marking | Size (mm) | Delivery Form | Delivery Quantity |
|-------------|---------|---------|---------------|---------------|-------------------|
| ESD5VFBD923 | SOD-923 | C | 0.79x0.59x0.4 | 7" T&R | 8000PCS/Tape |

Limiting Values(TA = 25 °C, unless otherwise specified)

| Symbol | Parameter | Conditions | value | Unit |
|------------------|---------------------------------|----------------------------------|----------------|------|
| V _{ESD} | Electrostatic Discharge Voltage | IEC 61000-4-2; Contact Discharge | ±30 | kV |
| | | IEC 61000-4-2; Air Discharge | ±30 | kV |
| P _{PP} | Peak Pulse Power | t _P = 8/20 μs | 80 | W |
| I _{PPM} | Rated Peak Pulse Current | t _P = 8/20 μs | 8 | A |
| T _L | Lead Soldering Temperature | - | 260(10seconds) | °C |
| T _J | Junction Temperature | - | -55 to+150 | °C |
| T _{stg} | Storage Temperature Range | - | -55 to+150 | °C |

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

| Symbol | Parameter | Conditions | Min | Typ. | Max | Unit |
|------------------|-------------------------|--------------------------|-----|------|-----|------|
| V _{RWM} | Reverse Working Voltage | TA = 25 °C | - | - | 5.0 | V |
| V _{BR} | Breakdown Voltage | IT = 1mA | 5.6 | - | - | V |
| I _R | Reverse Leakage Current | VRWM = 5 V; TA = 25 °C | - | - | 100 | nA |
| V _C | Clamping Voltage | IPP=8A, tP =8/20 μs | - | - | 10 | V |
| C _J | Junction Capacitance | VR = 0V, f = 1 MHz | - | 15 | - | pF |

Typical Characteristics

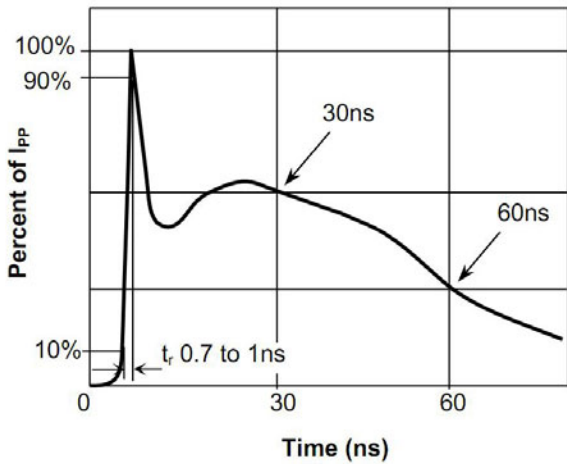


Fig.1 Pulse Waveform-ESD (IEC61000-4-2)

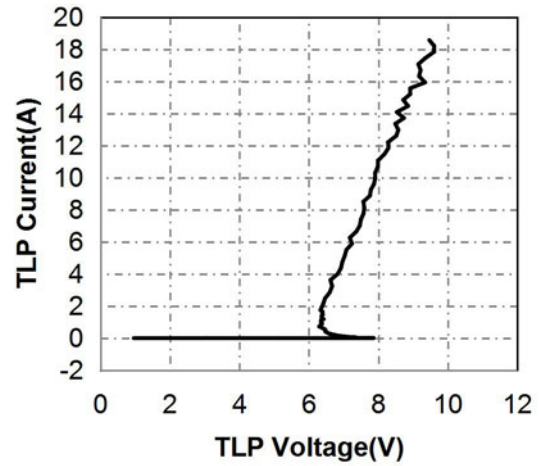


Fig.2 Transmission Line Pulse (TLP)

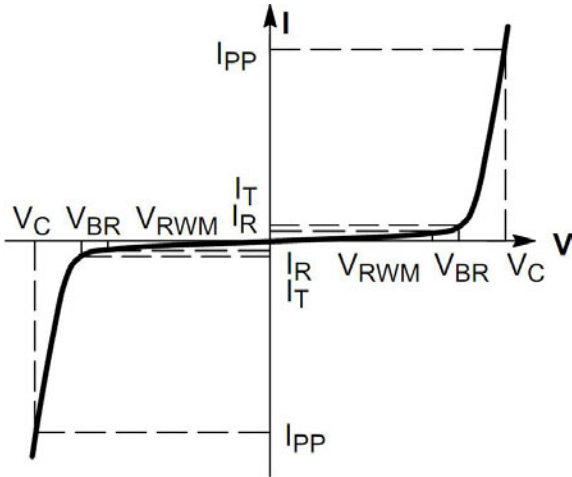


Fig.3 V-I Capacitance For Bidirectional Diode

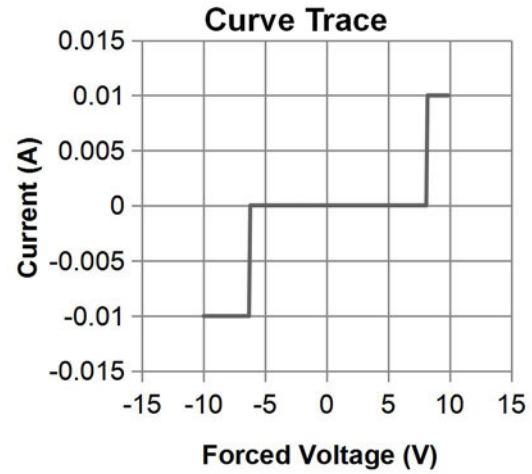


Fig. 4 IV Curve

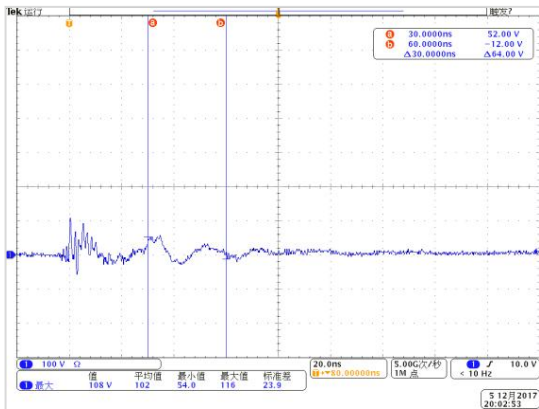


Fig.5 Clamping Voltage at IEC61000-4-2 +8kV Pulse Waveform

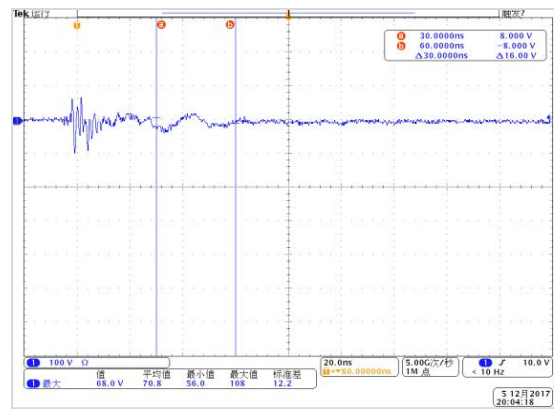
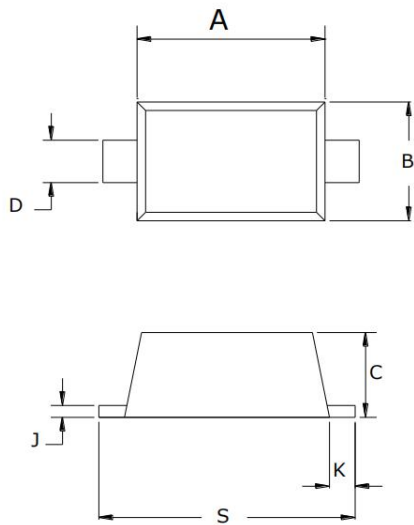


Fig.6 Clamping Voltage at IEC61000-4-2 -8kV Pulse Waveform

Package Dimension



| SYMBOL | MILLIMETERS | |
|--------|-------------|------|
| | MIN | MAX |
| A | 0.74 | 0.86 |
| B | 0.54 | 0.66 |
| C | 0.35 | 0.45 |
| D | 0.14 | 0.26 |
| K | 0.04 | 0.16 |
| S | 0.95 | 1.10 |

Soldering Footprint (mm)

