

### Features

- ◆ 300W peak pulse power(8/20 $\mu$ s)
- ◆ Ultra low leakage: nA level
- ◆ Operating voltage: 15V
- ◆ Low clamping voltage
- ◆ Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test  
Air discharge:  $\pm 30$ kV  
Contact discharge:  $\pm 30$ kV
  - IEC61000-4-4 (EFT) 40A (5/50ns)
  - IEC61000-4-5 (Lightning) 8A (8/20 $\mu$ s)
- ◆ RoHS Compliant

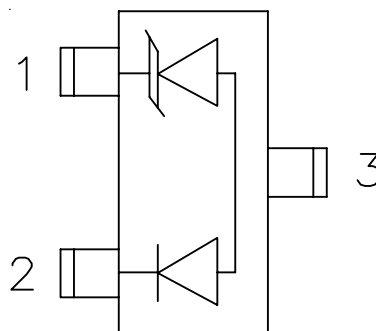
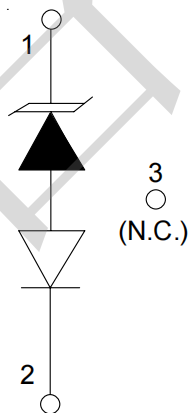
### Mechanical Characteristics

- ◆ Package: SOT-23
- ◆ Lead Finish: Matte Tin
- ◆ Case Material: "Green" Molding Compound.
- ◆ UL Flammability Classification Rating 94V-0
- ◆ Moisture Sensitivity: Level 3 per J STD 020
- ◆ Shipping Qty : 3000pcs/7Inch Tape & Reel

### Applications

- ◆ High-Speed data lines
- ◆ Cellular handsets AND accessories
- ◆ Universal Serial Bus (USB) port protection
- ◆ Portable instrumentation
- ◆ LAN/WAN equipment
- ◆ Peripherals

### Dimensions and Pin Configuration



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

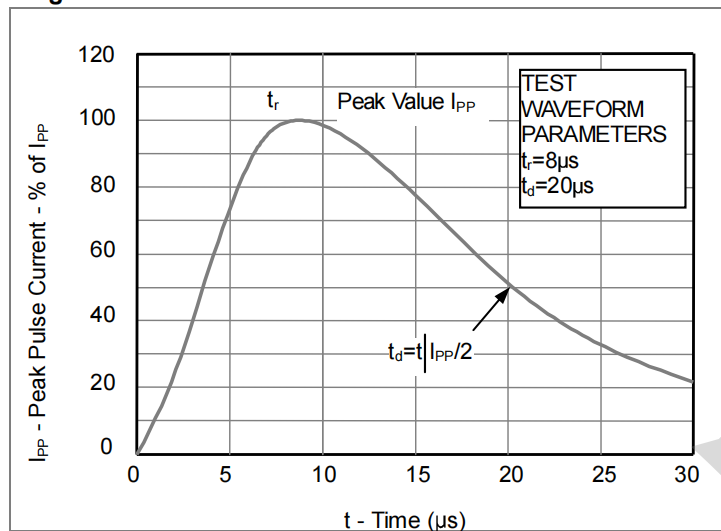
| Parameter                       | Symbol | Value       | Unit |
|---------------------------------|--------|-------------|------|
| Peak Pulse Power (8/20μs)       | Ppk    | 300         | W    |
| Peak Pulse Current (8/20μs)     | IPP    | 8           | A    |
| ESD per IEC 61000-4-2 (Air)     | VESD   | ± 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)

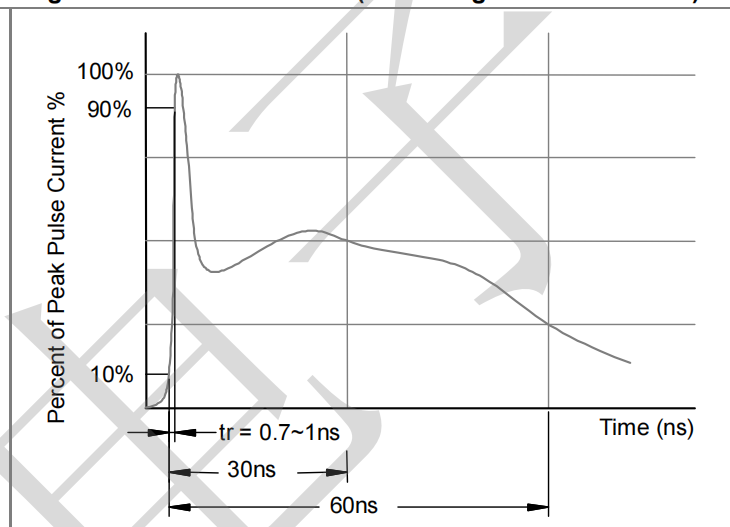
| Parameter               | Symbol | Min | Typ | Max | Unit | Test Condition               |
|-------------------------|--------|-----|-----|-----|------|------------------------------|
| Reverse Working Voltage | VRWM   |     |     | 15  | V    |                              |
| Breakdown Voltage       | VBR    | 16  | 18  | 19  | V    | IT = 1mA                     |
| Reverse Leakage Current | IR     |     |     | 0.1 | μA   | VRWM = 15V                   |
| Forward Voltage         | VF     |     | 0.8 | 1.2 | V    | IF = 10mA                    |
| Clamping Voltage        | VC     |     | 15  |     | V    | IPP = 1A (8 x 20μs pulse)    |
| Clamping Voltage        | VC     |     |     | 35  | V    | IPP = 8A (8 x 20μs pulse)    |
| Junction Capacitance    | CJ     |     | 1   |     | pF   | VR=0, f=1MHz, Pin 1 to Pin 2 |

### Typical Performance Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise Specified)

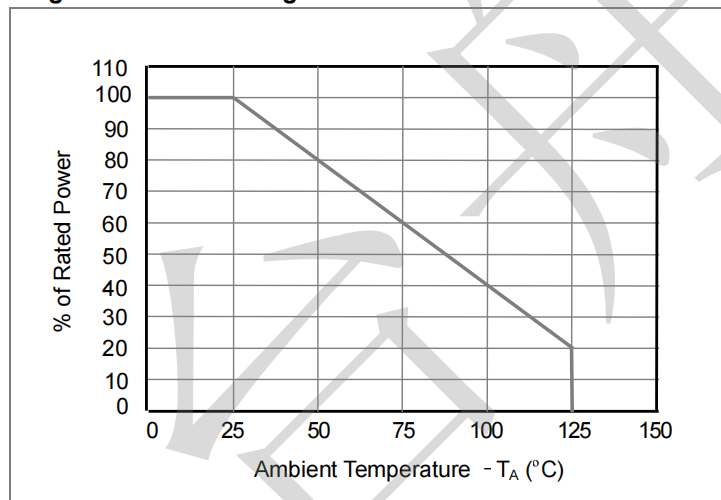
**Fig1. 8/20 $\mu\text{s}$  Pulse Waveform**



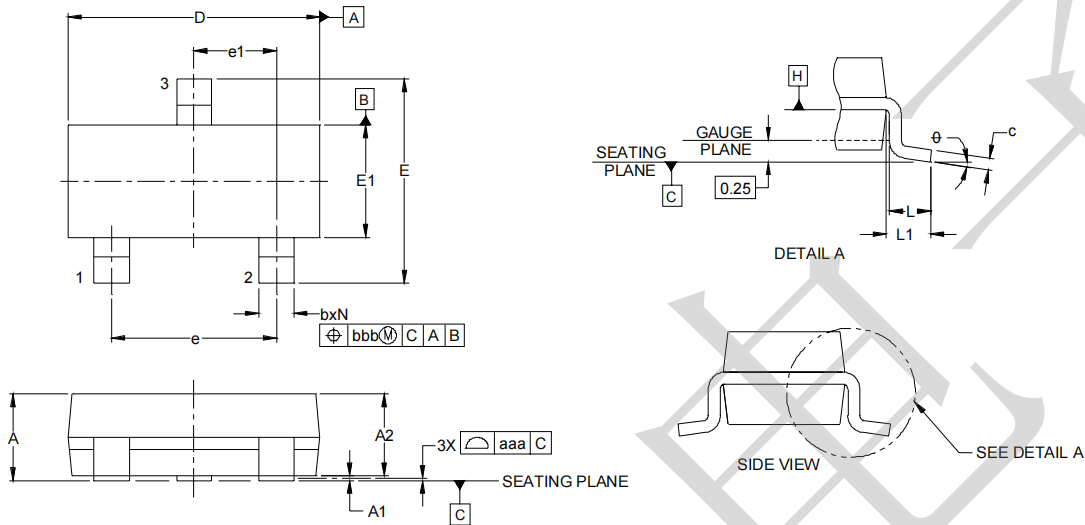
**Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)**



**Fig3. Power Derating Curve**



## Outline Drawing - SOT23



## Land Pattern - SOT23

