

## Features

- ◆ 250W peak pulse power(8/20 $\mu$ s)
- ◆ Protects two bi-directional lines
- ◆ Ultra low leakage: nA level
- ◆ Operating voltage: 24V
- ◆ 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)5A (8/20  $\mu$ s)
- ◆ RoHS Compliant

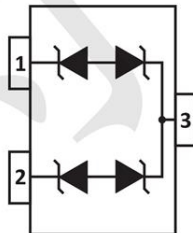
## Mechanical Characteristics

- ◆ SOT-23 package
- ◆ Molding compound flammability rating:
- ◆ UL 94V-0
- ◆ Packaging: Tape and Reel per EIA 481
- ◆ Shipping Qty :3000pcs/7Inch Tape & Reel

## Applications

- ◆ CAN Bus Protection
- ◆ Automotive Appllcatrons

## Dimensions and Pin Configuration



**marking: 24C Or C2xxyy**  
**xxyy =date code**

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

| Parameter                       | Symbol | Value       | Unit |
|---------------------------------|--------|-------------|------|
| Peak Pulse Power(8/20μs)        | Ppk    | 250         | W    |
| 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   |      |     | 24   | V    |                                   |
| Breakdown Voltage       | VBR    | 26.5 |     | 32   | V    | IT = 1mA                          |
| Reverse Leakage Current | IR     |      |     | 0.08 | uA   | VRWM = 24V                        |
| Clamping Voltage        | VC     |      | 33  |      | V    | IPP = 1A (8 x 20μs pulse)         |
| Clamping Voltage        | VC     |      |     | 50   | V    | IPP = 5A (8 x 20μs pulse)         |
| Peak Pulse Current      | IPP    |      |     | 5.5  | A    | t <sub>p</sub> = 8/20μs           |
| Junction Capacitance    | CJ     |      | 17  |      | pF   | VR = 0V, 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

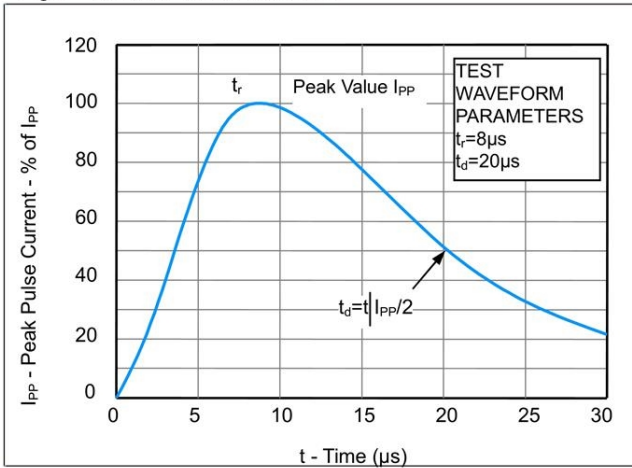


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

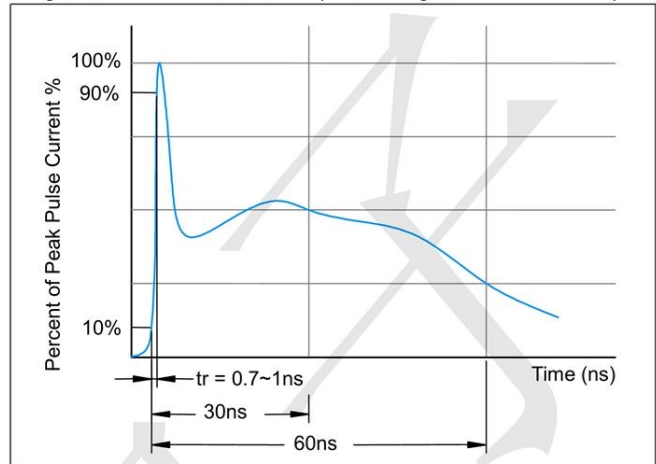
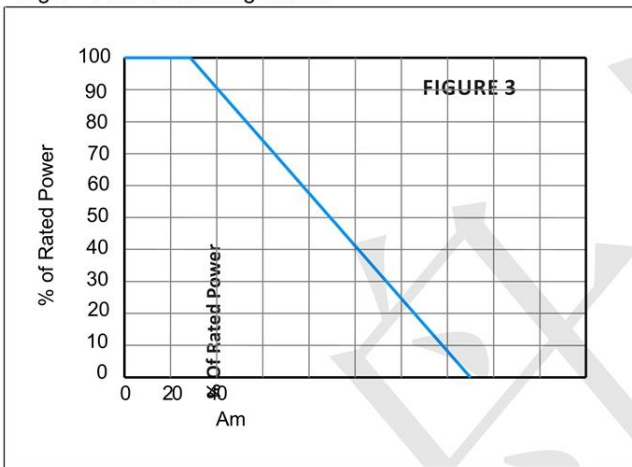
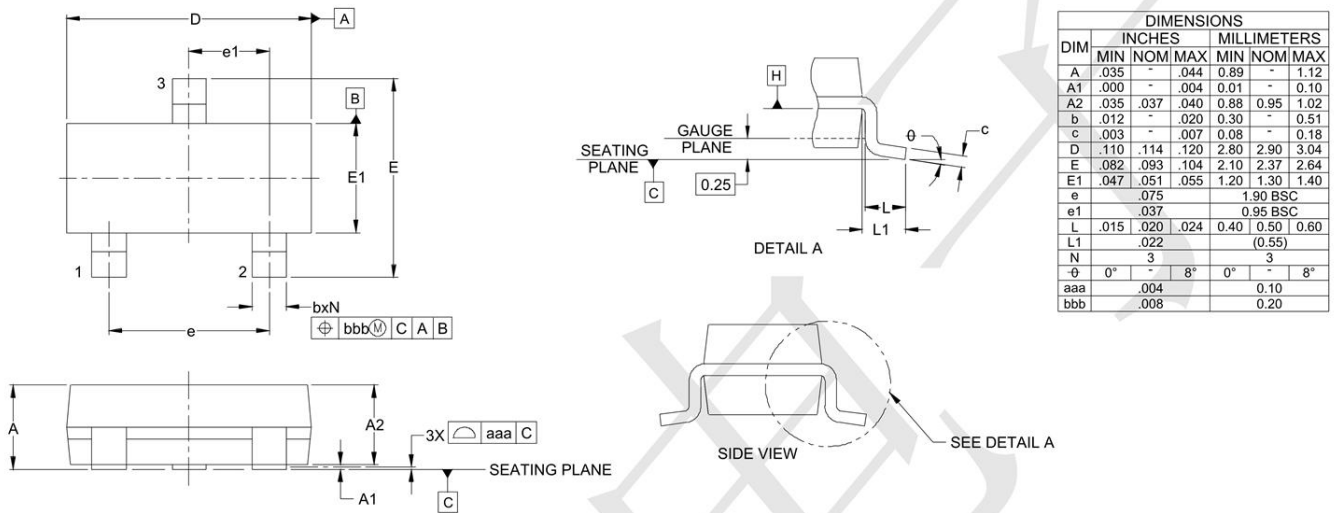


Fig3. Power Derating Curve



**Outline Drawing - SOT23**



**Land Pattern - SOT23**

