

## Features

- ◆ 150W peak pulse power(8/20 $\mu$ s)
- ◆ One device protects one unidirectional line
- ◆ Two devices protect two high-speed line pairs
- ◆ Ultra low leakage: nA level
- ◆ Low operating voltage: 2.8V
- ◆ Low capacitance
- ◆ Ultra low clamping voltage
- ◆ Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test  
Air discharge:  $\pm$ 30kV  
Contact discharge:  $\pm$ 30kV
  - IEC61000-4-4 (EFT) 40A (5/50ns)
  - IEC61000-4-5 (Lightning) 10A (8/20 $\mu$ s)
- ◆ RoHS Compliant

## Ordering Information

| Part Number | Qty per Reel | Reel Size |
|-------------|--------------|-----------|
| SLVU2.8S3   | 3000         | 7"        |

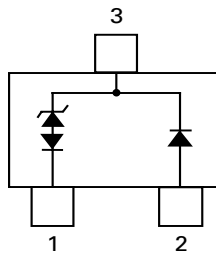
## Mechanical Characteristics

- ◆ 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
- ◆ Terminal Connections: See Diagram Below
- ◆ Marking Information: See Below

## Applications

- ◆ Base Station
- ◆ Analog Inputs
- ◆ Switch Systems
- ◆ 10/100 Ethernet
- ◆ WAN/LAN Equipment

## Dimensions and Pin Configuration



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

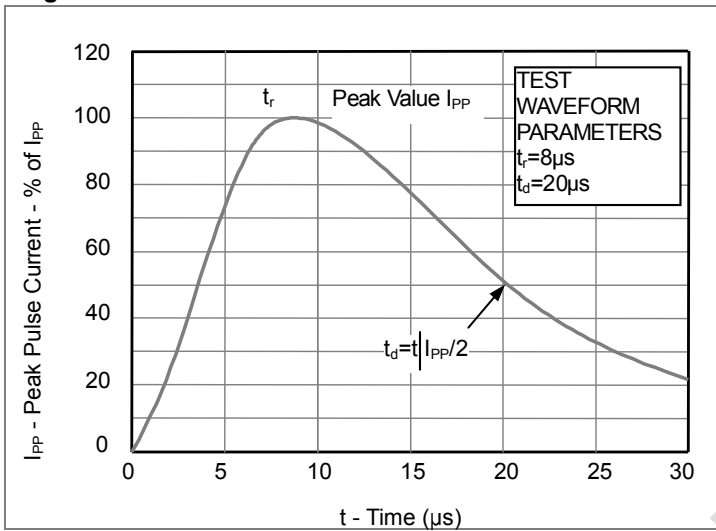
| Parameter  | Symbol | Value       | Unit |
|--|--------|-------------|------|
| Peak Pulse Power(8/20μs)                                       | Ppk    | 150         | W    |
| Peak Pulse Current(8/20μs)                                     | IPP    | 10          | A    |
| ESD per IEC 61000-4-2 (Air)<br>ESD per IEC 61000-4-2 (Contact) | VESD   | ±30<br>±30  | kV   |
| Operating Temperature Range                                    | TJ     | -55 to +125 | °C   |
| Storage Temperature Range                                      | Tstg   | -55 to +150 | °C   |

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

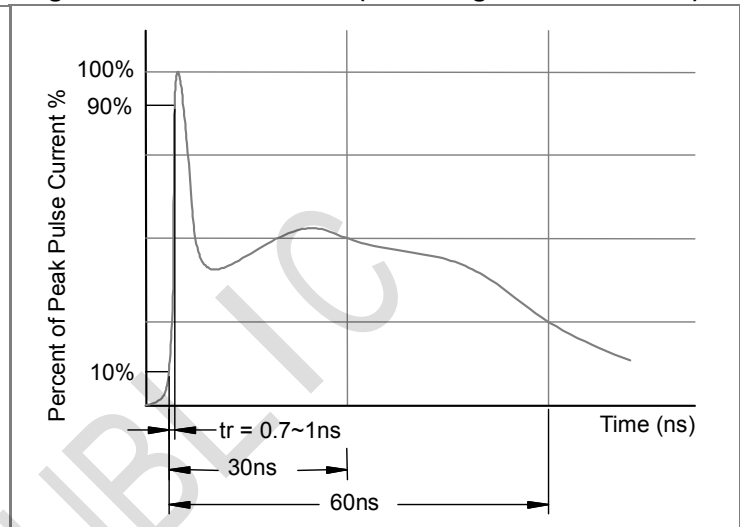
| Parameter               | Symbol | Min | Typ  | Max | Unit | Test Condition             |
|-------------------------|--------|-----|------|-----|------|----------------------------|
| Reverse Working Voltage | VRWM   |     |      | 2.8 | V    |                            |
| Punch-Through Voltage   | VBR    | 3.0 |      |     | V    | IT = 2μA                   |
| Reverse Leakage Current | IR     |     | 0.01 | 0.5 | μA   | VRWM = 2.8V                |
| Clamping Voltage        | VC     |     |      | 4   | V    | IPP = 1A (8 x 20μs pulse)  |
| Clamping Voltage        | VC     |     |      | 6   | V    | IPP = 5A (8 x 20μs pulse)  |
| Clamping Voltage        | VC     |     |      | 8   | V    | IPP = 10A (8 x 20μs pulse) |
| Junction Capacitance    | CJ     |     | 5    |     | pF   | VR=0, f=1MHz               |

**PROTECTION PRODUCTS**  
Typical characteristics

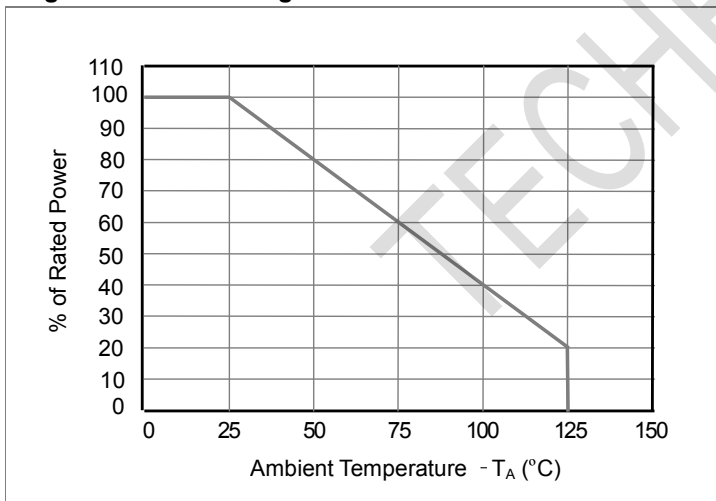
**Fig1. 8/20 $\mu$ s Pulse Waveform**



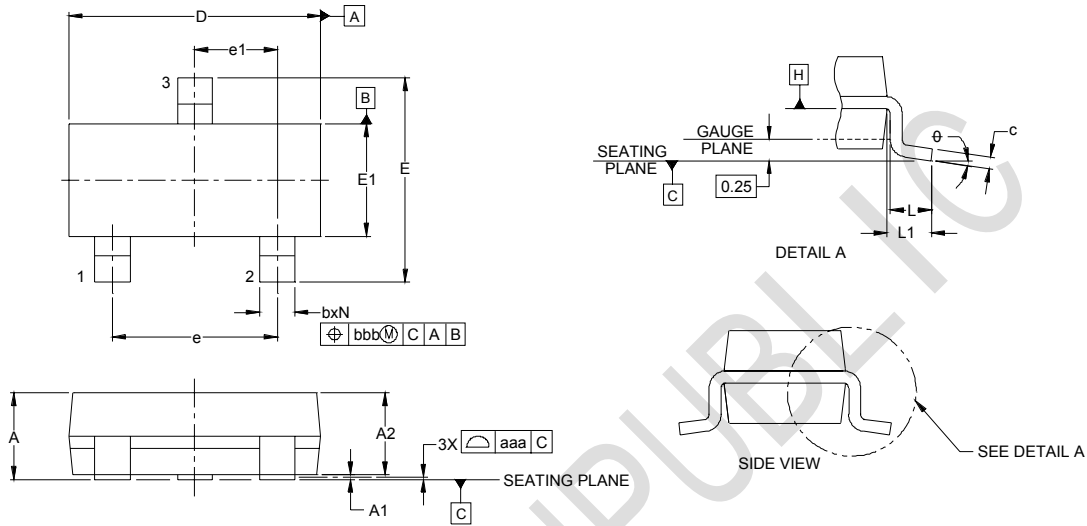
**Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)**



**Fig3. Power Derating Curve**



## Outline Drawing - SOT23



| DIM      | INCHES |      |      | MILLIMETERS |      |      |
|----------|--------|------|------|-------------|------|------|
|          | MIN    | NOM  | MAX  | MIN         | NOM  | MAX  |
| A        | .035   | -    | .044 | 0.89        | -    | 1.12 |
| A1       | .000   | -    | .004 | 0.01        | -    | 0.10 |
| A2       | .035   | .037 | .040 | 0.88        | 0.95 | 1.02 |
| b        | .012   | -    | .020 | 0.30        | -    | 0.51 |
| c        | .003   | -    | .007 | 0.08        | -    | 0.18 |
| D        | .110   | .114 | .120 | 2.80        | 2.90 | 3.04 |
| E        | .082   | .093 | .104 | 2.10        | 2.37 | 2.64 |
| E1       | .047   | .051 | .055 | 1.20        | 1.30 | 1.40 |
| e        | .075   |      |      | 1.90 BSC    |      |      |
| e1       | .037   |      |      | 0.95 BSC    |      |      |
| L        | .015   | .020 | .024 | 0.40        | 0.50 | 0.60 |
| L1       | .022   |      |      | (0.55)      |      |      |
| N        | 3      |      |      | 3           |      |      |
| $\theta$ | 0°     | -    | 8°   | 0°          | -    | 8°   |
| aaa      | .004   |      |      | 0.10        |      |      |
| bbb      | .008   |      |      | 0.20        |      |      |

## Land Pattern - SOT23

