

### Features

- ◆ Ultra low leakage: nA level
- ◆ Operating voltage: 5V
- ◆ Low clamping voltage
- ◆ Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge:  $\pm 30\text{kV}$
    - Contact discharge:  $\pm 30\text{kV}$
  - IEC61000-4-4 (EFT) 40A (5/50ns)
  - IEC61000-4-5 (Lightning) 10A (8/20 $\mu\text{s}$ )
- ◆ 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

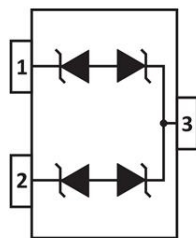
### Applications

- ◆ Cellular Handsets and Accessories
- ◆ Notebooks and Handhelds
- ◆ Portable Instrumentation
- ◆ Set Top Box
- ◆ Industrial Controls

### Ordering Information

| Part Number | Qty per Reel | Reel Size |
|-------------|--------------|-----------|
| PESD5V0L2BT | 3000         | 7"        |

### Dimensions and Pin Configuration



**marking: V4t Or V4W**

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

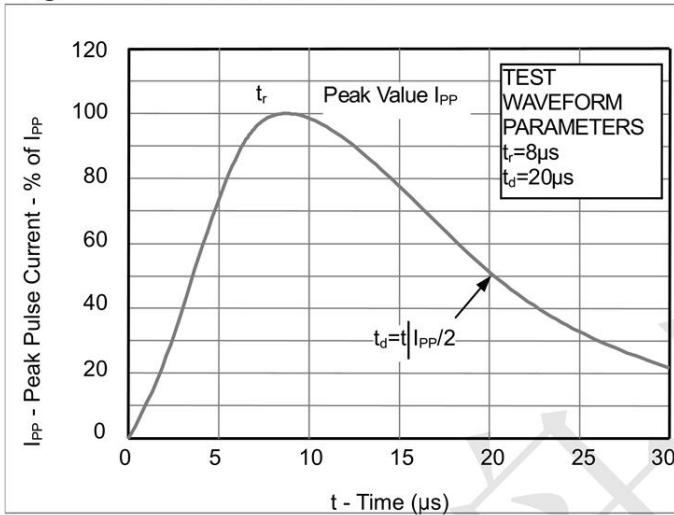
| Parameter                       | Symbol | Value       | Unit |
|---------------------------------|--------|-------------|------|
| Peak Pulse Current (8/20μs)     | Ipp    | 10          | A    |
| ESD per IEC 61000-4-2 (Air)     | VESD   | ±30         | kV   |
| ESD per IEC 61000-4-2 (Contact) |        | ±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)

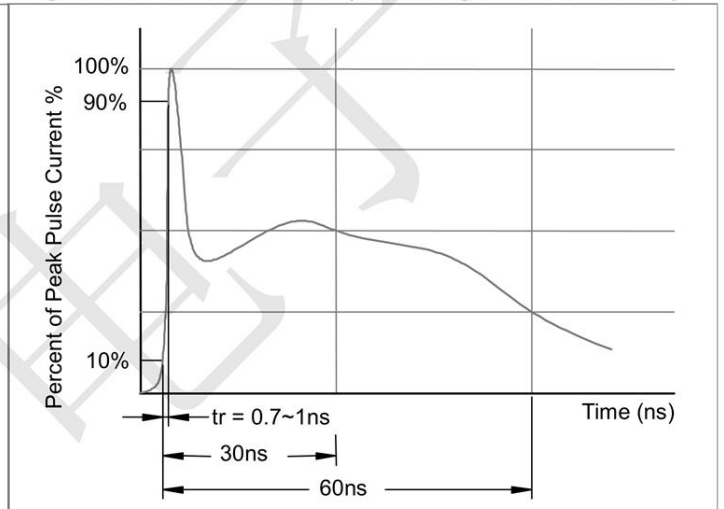
| Parameter               | Symbol | Min | Typ | Max  | Unit | Test Condition                                 |
|-------------------------|--------|-----|-----|------|------|--|
| Reverse Working Voltage | VRWM   |     |     | 5    | V    |  |
| Breakdown Voltage       | VBR    | 7.0 | 7.5 | 8.6  | V    | IT = 1mA                                       |
| Reverse Leakage Current | IR     |     |     | 0.06 | uA   | VRWM = 5V                                      |
| Clamping Voltage        | VC     |     |     | 6    | V    | Ipp=1A(8x 20us pulse)                          |
| Clamping Voltage        | VC     |     |     | 10   | V    | Ipp=10A (8x 20us pulse)                        |
| Junction Capacitance    | CJ     |     | 15  | 20   | pF   | VR=0, f=1MHz, Pin 1 to Pin 3 or Pin 2 to Pin 3 |
| Junction Capacitance    | CJ     |     | 7   |      | pF   | VR=0, f=1MHz, Pin1 to Pin 2 or Pin 2 to Pin1   |

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

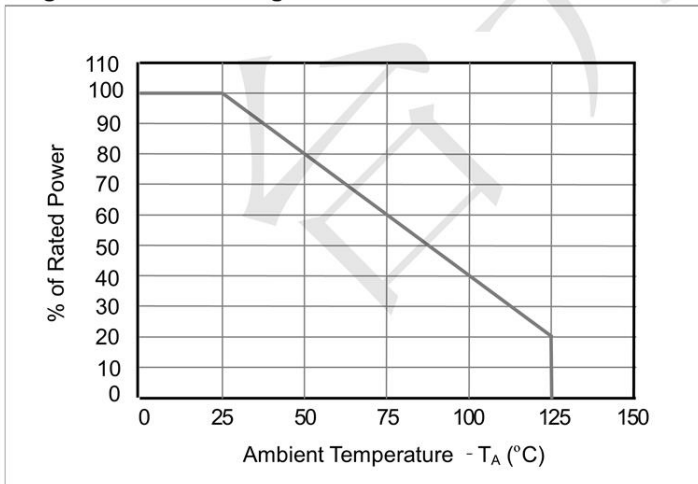
**Fig1. 8/20 $\mu\text{s}$  Pulse Waveform**



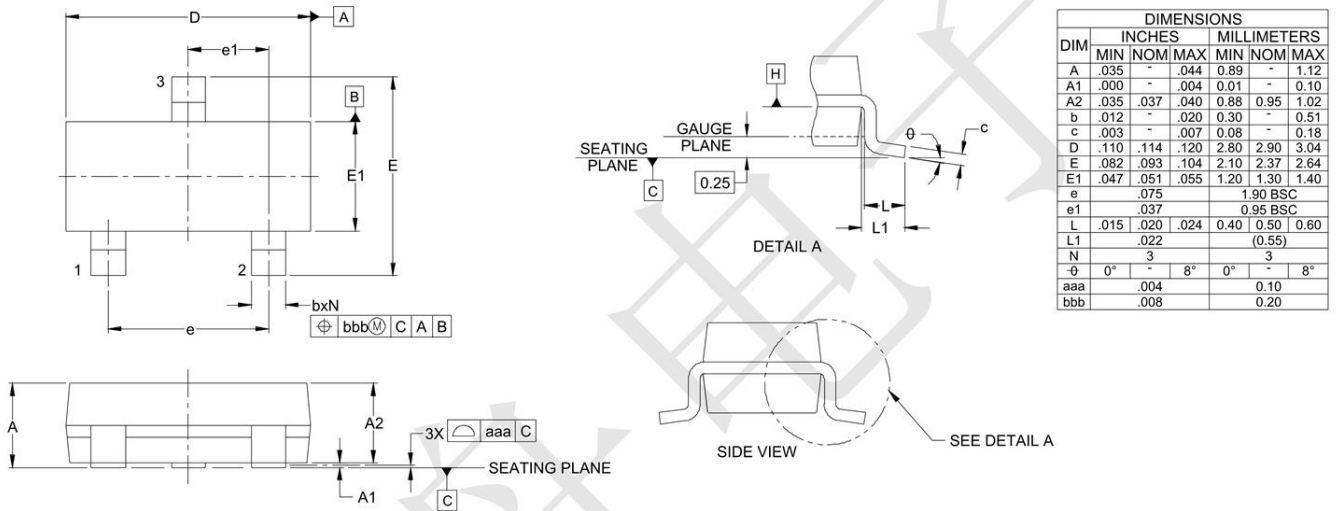
**Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)**



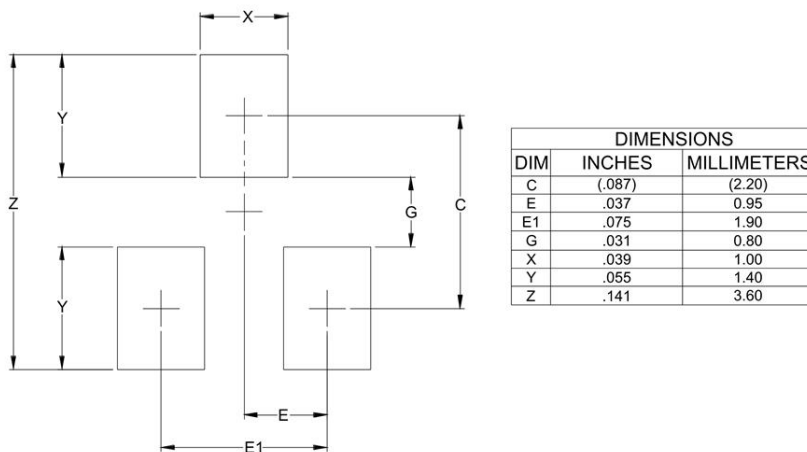
**Fig3. Power Derating Curve**



**Outline Drawing - SOT23**



**Land Pattern - SOT23**



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