

Features

- * 150W peak pulse power (8/20 μ s)
- * Protects one data or power line
- * Operating voltage: 5V
- * Ultra low clamping voltage
- * Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: ± 30 kV
 - Contact discharge: ± 30 kV
 - IEC61000-4-5 (SURGE) 10A (8/20 μ s)

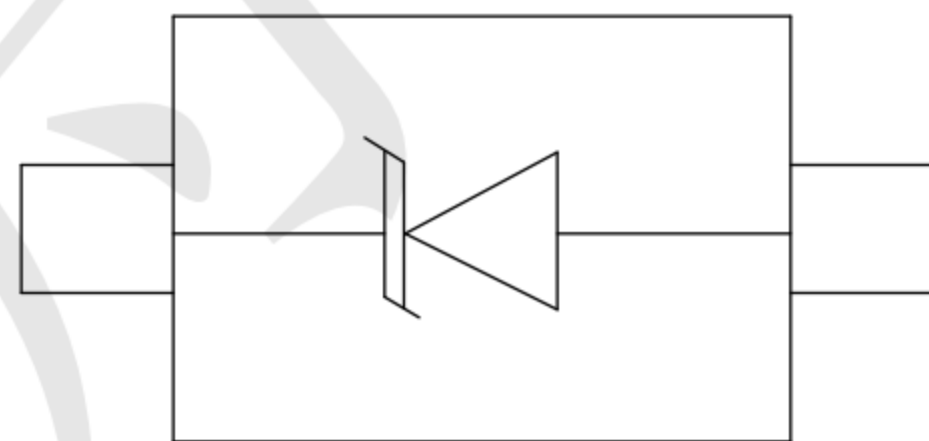
Mechanical Characteristics

- * Package: SOD-723
- * Ultra low leakage: nA level
- * Case Material: "Green" Molding Compound.
- * UL Flammability Classification Rating 94V-0
- * Moisture Sensitivity: Level 3 per J-STD-020
- * Shipping Qty :8000 /7Inch Tape & Reel

Applications

- * Computers and peripherals
- * Audio and video equipment
- * Cellular handsets and accessories
- * Portable electronics

Dimensions and Pin Configuration



SOD723

Marking:E2

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) | 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 | Test Condition | Min | Typ | Max | Unit |
|-------------------------|--------|---|-----|-----|-----|------|
| Reverse Working Voltage | VRWM | | | | 5 | V |
| Breakdown Voltage | VBR | IT = 1mA(Pin1-Pin2) | 6 | | | V |
| Reverse Leakage Current | IR | VRWM = 5.0V(Pin2-Pin1) | | | 0.2 | μA |
| Clamping Voltage | VC | IPP = 1A (8 x 20us pulse) (Pin1-Pin2) | | | 8 | V |
| Clamping Voltage | VC | IPP = 10A (8 x 20us pulse) (Pin1-Pin2) | | | 15 | V |
| Junction Capacitance | CJ | VR = 0V, f = 1MHz | | | 90 | pF |

Characteristic Curves

Fig1. 8/20 μ s Pulse Waveform

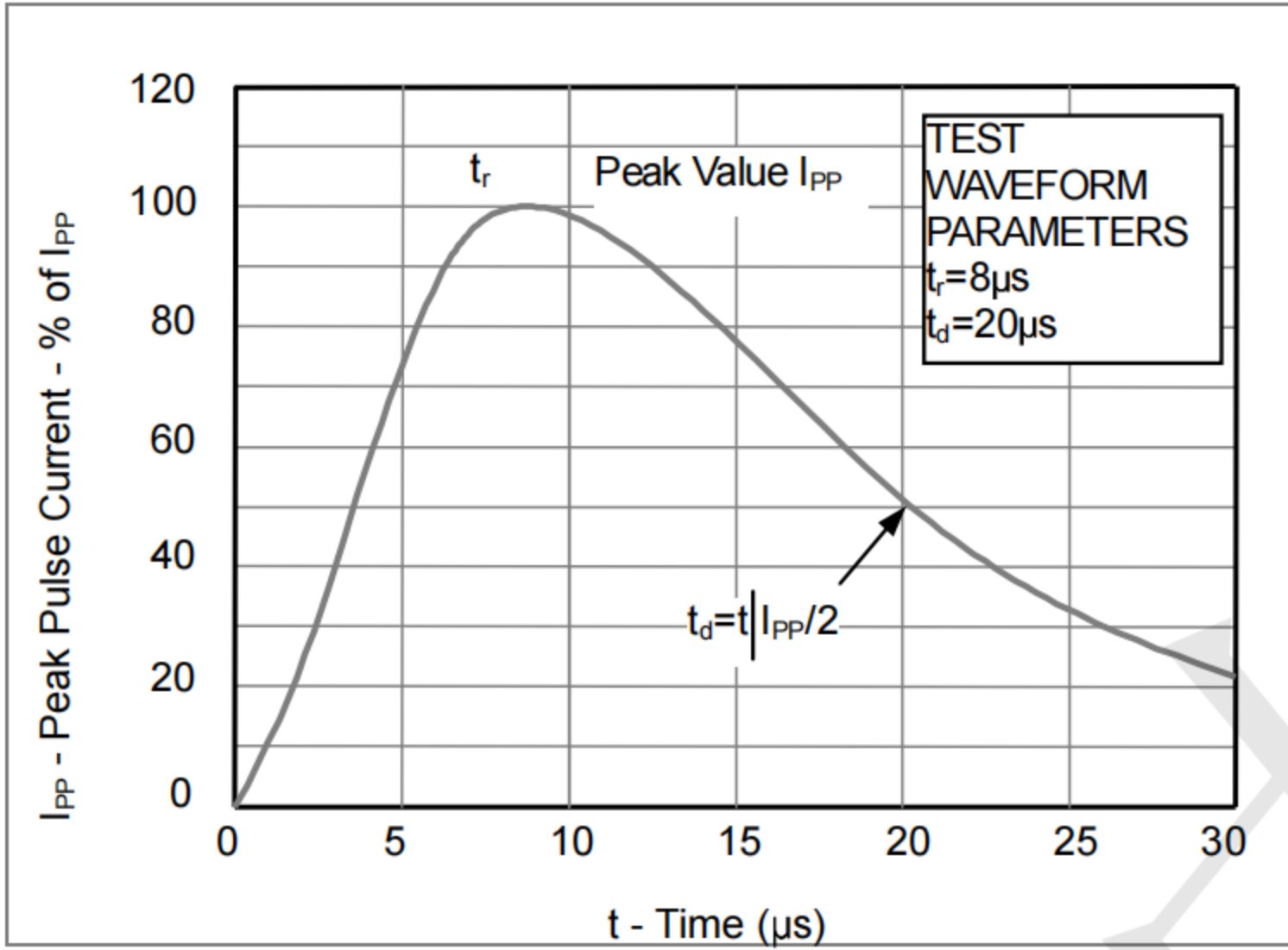


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

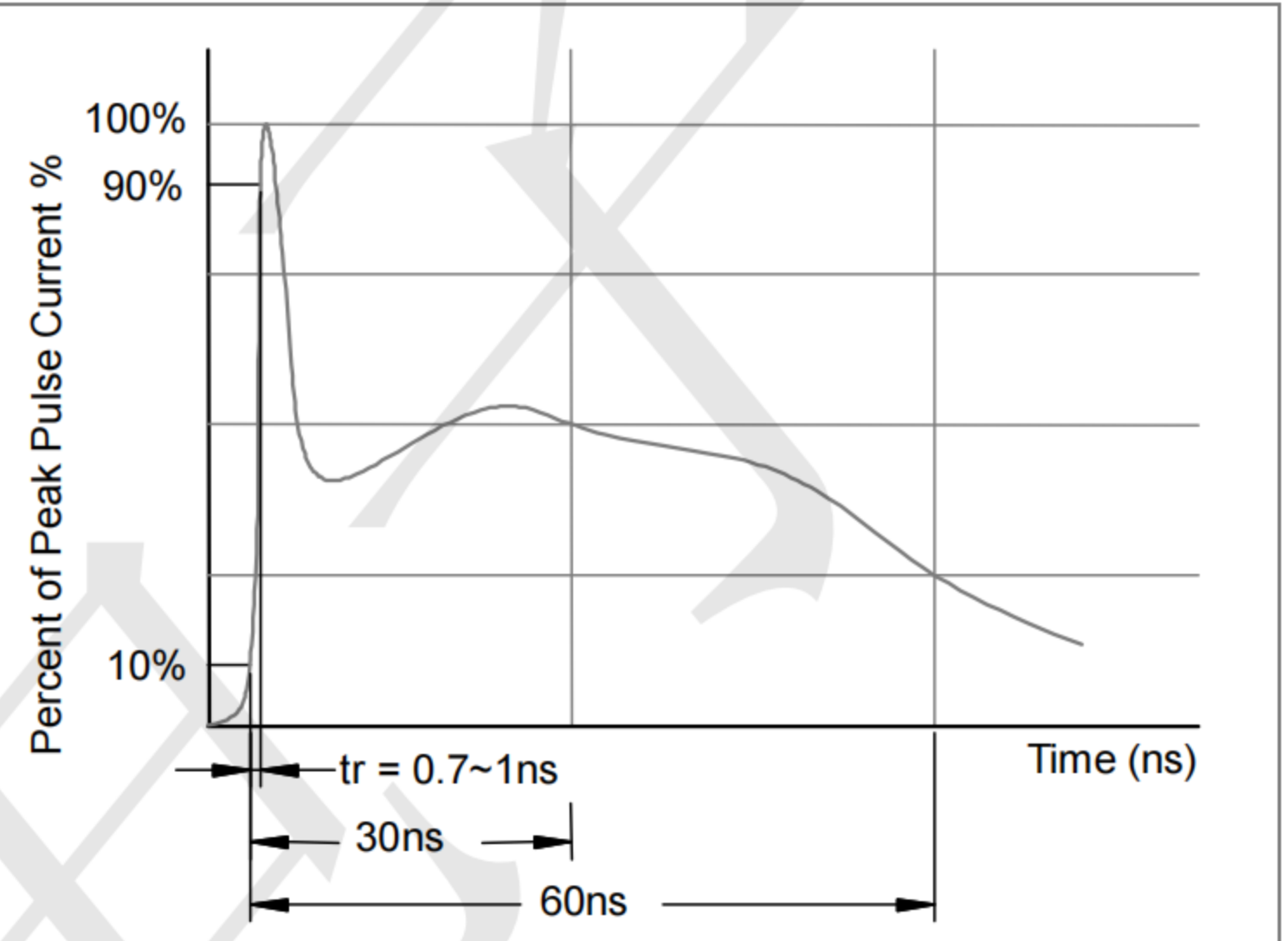
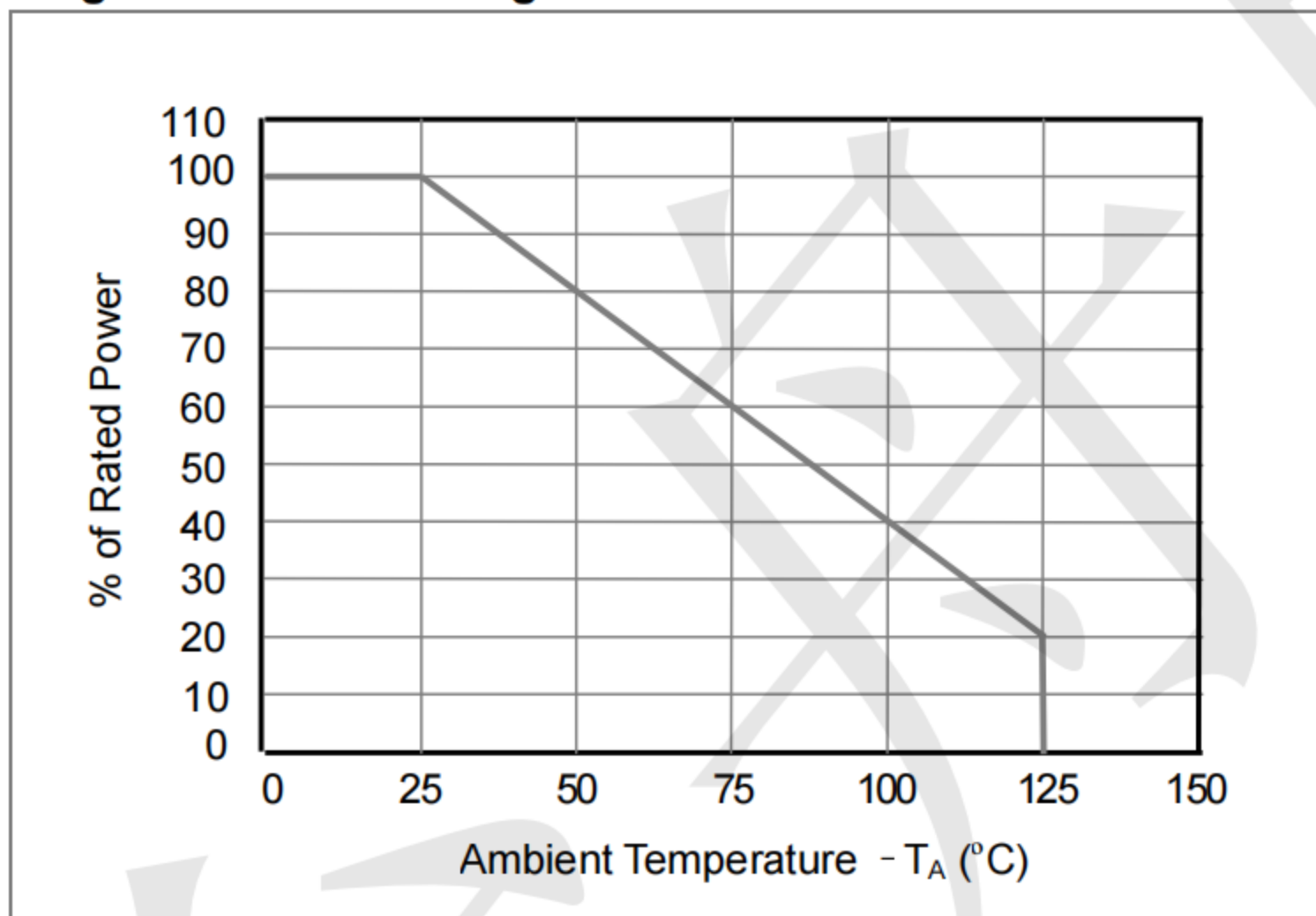


Fig3. Power Derating Curve





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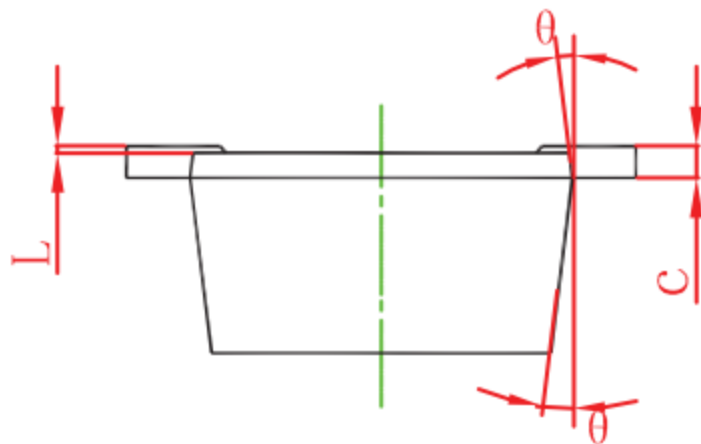
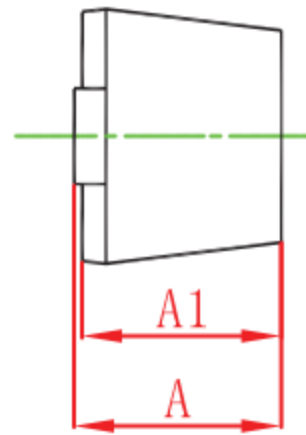
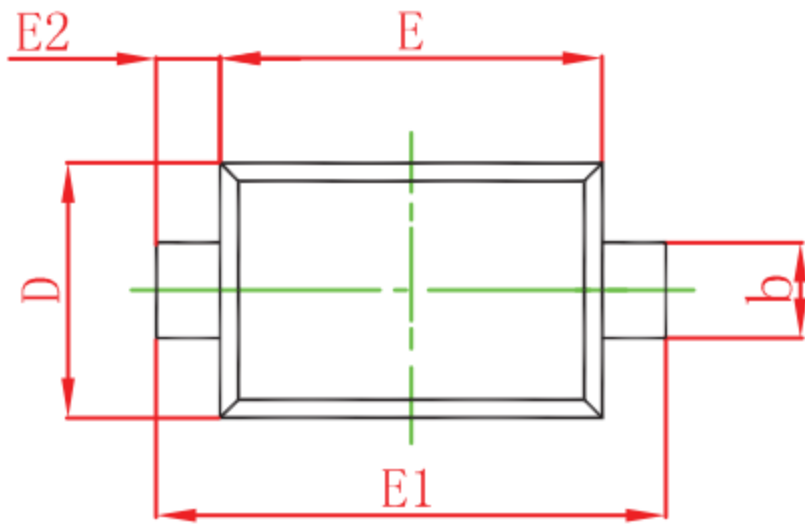
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UESD5.0ST5G

1-Line Uni-directional TVS Diode

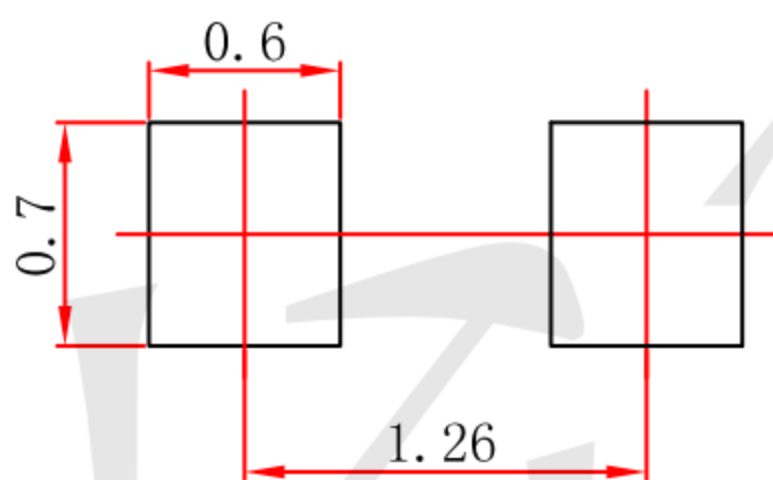
www.sot23.com.tw

Outline Drawing - SOD-723 (unit: mm)



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min | Max | Min | Max |
| A | 0.525 | 0.650 | 0.021 | 0.026 |
| A1 | 0.515 | 0.580 | 0.020 | 0.023 |
| b | 0.250 | 0.350 | 0.010 | 0.014 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 0.550 | 0.650 | 0.022 | 0.026 |
| E | 0.900 | 1.100 | 0.035 | 0.043 |
| E1 | 1.300 | 1.500 | 0.051 | 0.059 |
| E2 | 0.200 REF | | 0.008 REF | |
| L | 0.010 | 0.070 | 0.001 | 0.003 |
| θ | 7° REF | | 7° REF | |

Mounting Pad Layout-SOD723 (unit: mm)



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

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