

Features

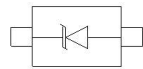
150 Watts peak pulse power (tp = 8/20μs)
 Transient protection for high speed data lines to
 IEC 61000-4-2 (ESD) ± 30kV (air), ± 30kV (contact)
 IEC 61000-4-4 (EFT) 40A (5/50ns)
 Protects One Power or I/O Port
 Low leakage current
 Low operating and clamping voltages
 Solid-state silicon avalanche technology

Mechanical Characteristics

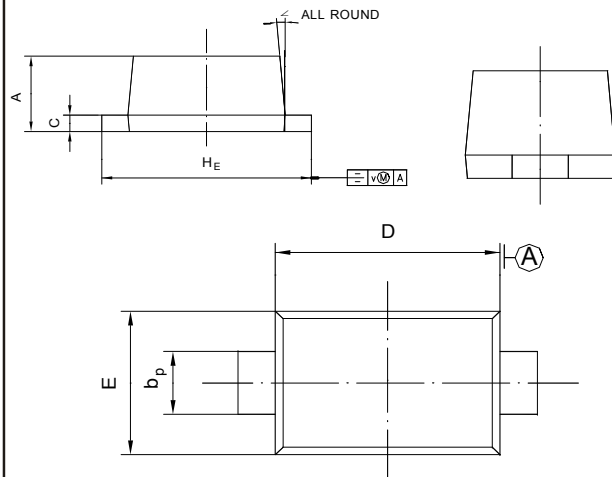
Package: SOD-523
 Lead Finish: Matte Tin
 Case Material: "Green" Molding Compound.
 UL Flammability Classification Rating 94V-0
 Moisture Sensitivity: Level 3 per J-STD-020
 Terminal Connections: See Diagram Below

Applications

Cellular Handsets and Accessories
 Personal Digital Assistants
 Notebooks and Handhelds
 Portable Instrumentation
 Digital Cameras
 Peripherals
 Audio Players
 Keypads, Side Keys, LCD Displays, USB2.0



SOD-523 (Top View)



| UNIT | A | b _p | C | D | E | H _E | V | ∠ |
|------|--------------|----------------|--------------|--------------|--------------|----------------|-----|----|
| mm | 0.70 0.50 | 0.40 0.20 | 0.14 0.05 | 1.30 1.10 | 0.90 0.75 | 1.70 1.50 | 0.1 | 5° |

Ordering information

| Order code | Package | Making |
|-------------|---------|--------|
| ESD5Z3.3T1G | SOD-523 | ZE |

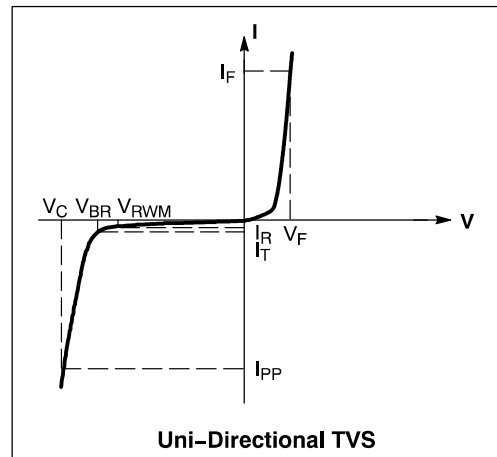
Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

| Parameter | Symbol | Value | Unit |
|---------------------------------|------------------|-------------|------|
| ESD per IEC 61000-4-2 (Air) | V _{ESD} | ±30 | kV |
| ESD per IEC 61000-4-2 (Contact) | | ±30 | |
| Operating Temperature Range | T _J | -55 to +125 | °C |
| Storage Temperature Range | T _{stg} | -55 to +150 | °C |

ESD5Z3.3T1G

Electrical Characteristics (T_A=25°C unless otherwise specified)

| Symbol | Parameter |
|------------------|--|
| I _{PP} | Maximum Reverse Peak Pulse Current |
| V _C | Clamping Voltage @ I _{PP} |
| V _{RWM} | Working Peak Reverse Voltage |
| I _R | Maximum Reverse Leakage Current @ V _{RWM} |
| V _{BR} | Breakdown Voltage @ I _T |
| I _T | Test Current |
| I _F | Forward Current |
| V _F | Forward Voltage @ I _F |
| P _{pk} | Peak Power Dissipation |
| C | Capacitance @ V _R = 0 and f = 1.0 MHz |



| Parameter | Symbol | Min | Typ | Max | Unit | Test Condition |
|-------------------------|------------------|-----|-----|-----|------|--|
| Reverse Working Voltage | V _{RWM} | | | 3.3 | V | |
| Breakdown Voltage | V _{BR} | 5 | | | V | I _T = 1mA |
| Reverse Leakage Current | I _R | | | 0.2 | uA | V _{RWM} = 5V |
| Clamping Voltage | V _C | | | 9 | V | I _{PP} = 1A (8 x 20µs pulse) |
| Clamping Voltage | V _C | | | 14 | V | I _{PP} = 11A (8 x 20µs pulse) |
| Junction Capacitance | C _J | | | 110 | pF | V _R = 0V, f = 1MHz |

RATING AND CHARACTERISTIC CURVES (ESD5Z3.3T1G)

Fig1. 8/20 μ s Pulse Waveform

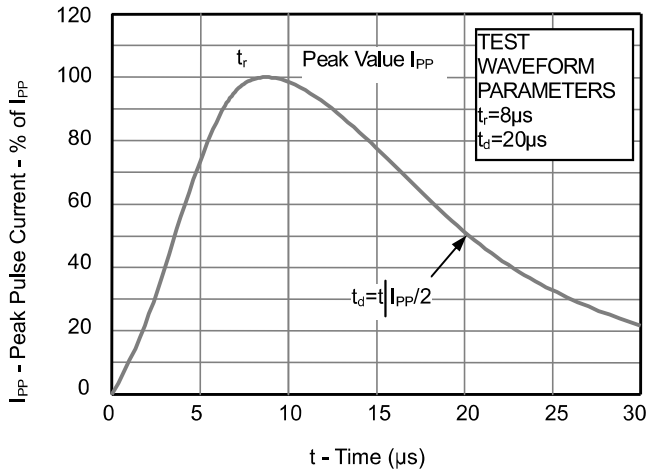


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

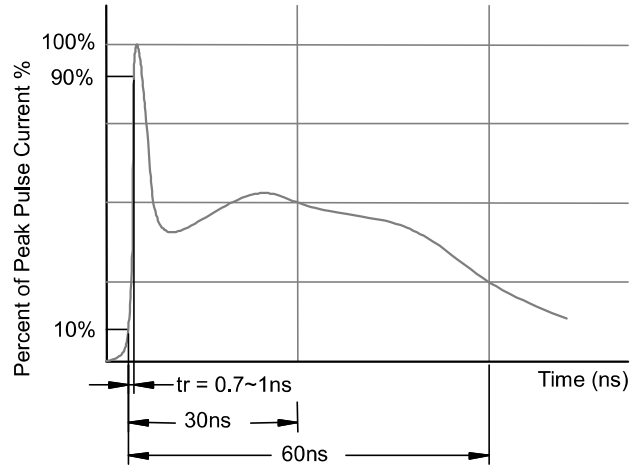


Fig3. Power Derating Curve

