

Features

- * 350W peak pulse power (8/20 μ s)
- * Ultra low capacitance: 1.0 pF typical
- * Ultra low leakage: nA level
- * Low clamping voltage
- * Protects one power line or data line
- * Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: ± 30 kV
 - Contact discharge: ± 30 kV
 - IEC61000-4-4 (EFT) 40A (5/50ns)
- * RoHS Compliant

Mechanical Characteristics

- ◆ Package: SOD-323
- ◆ 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

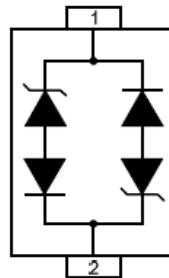
Applications

- ◆ Cellular Handsets and Accessories
- ◆ Personal Digital Assistants
- ◆ Notebooks and Handhelds
- ◆ Portable Instrumentation
- ◆ Peripherals
- ◆ Pagers Peripherals
- ◆ Desktop and Servers

Ordering Information

| Part Number | Qty per Reel | Reel Size |
|-------------|--------------|-----------|
| TPGC15C | 3000 | 7" |

Dimensions and Pin Configuration

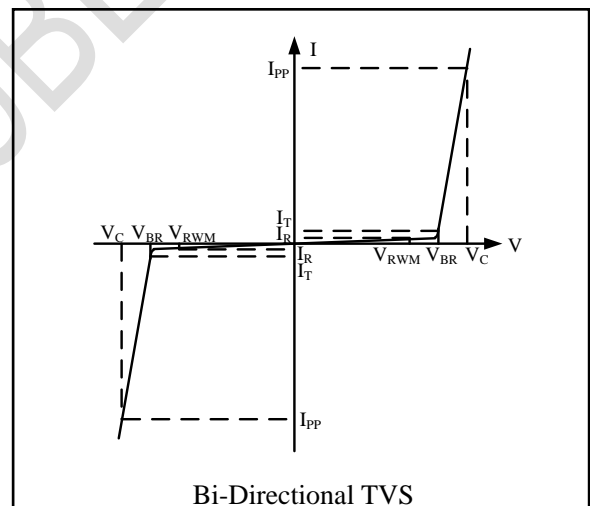


Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

| Parameter | Symbol | Value | Unit |
|---------------------------------|--------|-------------|------|
| 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)

| Symbol | Parameter |
|-----------|-------------------------------------|
| V_{RWM} | Nominal Reverse Working Voltage |
| I_R | Reverse Leakage Current @ V_{RWM} |
| V_{BR} | Reverse Breakdown Voltage @ I_T |
| I_T | Test Current for Reverse Breakdown |
| V_C | Clamping Voltage @ I_{PP} |
| I_{PP} | Maximum Peak Pulse Current |
| C_{ESD} | Parasitic Capacitance |
| V_R | Reverse Voltage |
| f | Small Signal Frequency |



| Parameter | Symbol | Test Condition | Min | Typ | Max | Unit |
|-------------------------|-----------|--|------|-----|------|---------------|
| Reverse Working Voltage | V_{RWM} | | | | 15.0 | V |
| Breakdown Voltage | V_{BR} | $I_T = 1\text{mA}$ | 16.7 | | | V |
| Reverse Leakage Current | I_R | $V_{RWM} = 15\text{V}$ | | | 0.2 | μA |
| Clamping Voltage | V_C | $I_{PP} = 1\text{A}$ (8 x 20 μs pulse) | | | 22 | V |
| Clamping Voltage | V_C | $I_{PP} = 10\text{A}$ (8 x 20 μs pulse) | | | 32 | V |
| Junction Capacitance | C_J | $V_R = 0\text{V}$, $f = 1\text{MHz}$ | | 1 | | pF |

PROTECTION PRODUCTS
Typical characteristics

Fig1. 8/20 μ s Pulse Waveform

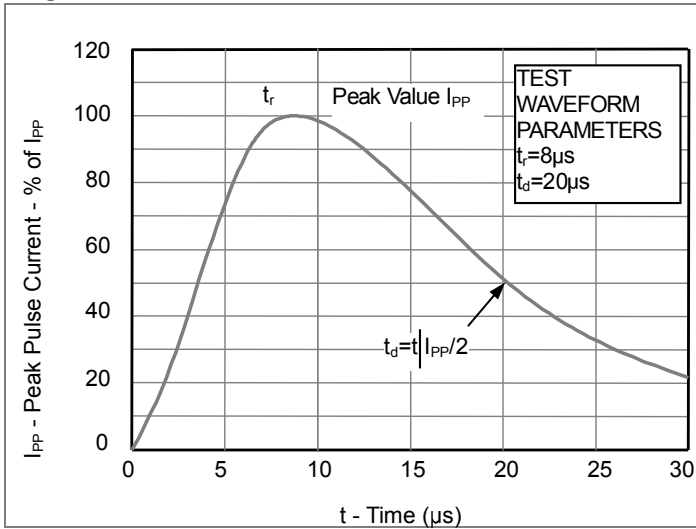


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

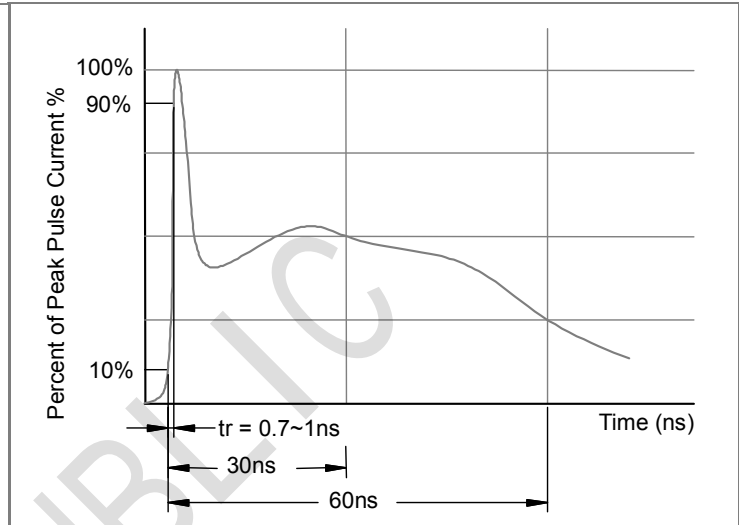
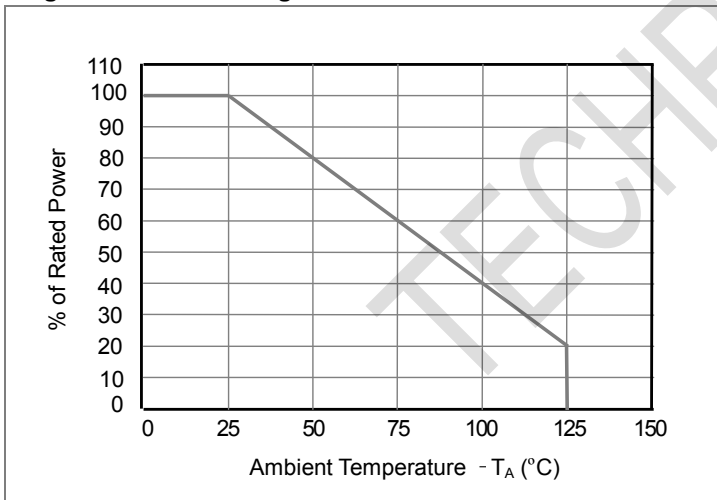
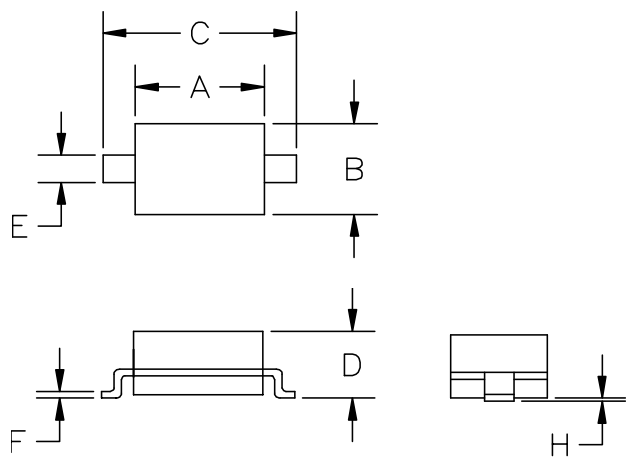


Fig3. Power Derating Curve

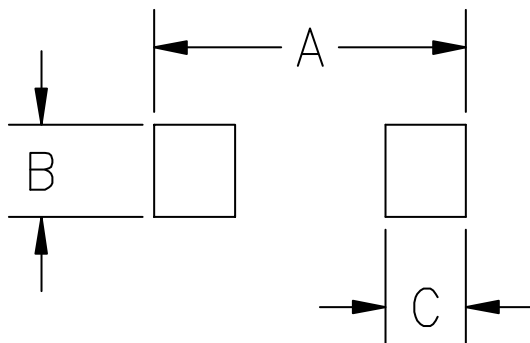


Outline Drawing - SOD-323



| SYM | DIMENSIONS | | | |
|-----|-------------|------|--------|-------|
| | MILLIMETERS | | INCHES | |
| | MIN | MAX | MIN | MAX |
| A | 1.50 | 1.80 | 0.060 | 0.071 |
| B | 1.20 | 1.40 | 0.045 | 0.054 |
| C | 2.30 | 2.70 | 0.090 | 0.107 |
| D | - | 1.10 | - | 0.043 |
| E | 0.30 | 0.40 | 0.012 | 0.016 |
| F | 0.10 | 0.25 | 0.004 | 0.010 |
| H | - | 0.10 | - | 0.004 |

Land Pattern - SOD-323



| SYM | DIMENSIONS | |
|-----|-------------|--------|
| | MILLIMETERS | INCHES |
| A | 3.15 | 0.120 |
| B | 0.80 | 0.031 |
| C | 0.80 | 0.031 |