



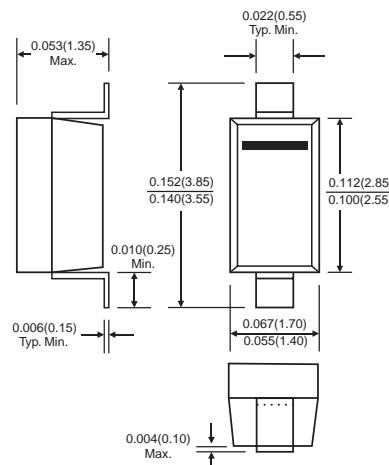
SOD-123

FEATURES

- ◊ Suitable replacement for MLV'S
- ◊ ESD protection
- ◊ Low leakage current
- ◊ Low clamping voltage



Lead-free



Dimensions in inches and (millimeters)

APPLICATIONS

- ◊ Single line TVS diode
- ◊ Computers and peripherals
- ◊ Communication systems
- ◊ Audio and video equipment

MAXIMUM RATING @ Ta=25°C unless otherwise specified

| Parameter | Symbol | Limits | Unit |
|---|-----------------------------------|-------------|------|
| Reverse standoff voltage | V _{RWM} | 5 | V |
| Peak pulse power dissipation($t_p=8/20\mu s$) | P _{PP} | 260 | W |
| Peak pulse current($t_p=8/20\mu s$) | I _{PP} | 15 | A |
| ESD (electrostatic discharge capability) | V _{PP} | 30 | kV |
| Junction temperature | T _j | 150 | °C |
| Storage and operating temperature | T _{STG} T _{amb} | -55 to +150 | °C |

ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

| Parameter | Symbol | Conditions | Min | Typ | Max | Units |
|---------------------------|------------|--------------------------------|-----|-----|-----|---------------|
| Reverse breakdown voltage | V_{BR} | $I_R=5\text{mA}$ | 6.4 | 6.8 | 7.2 | V |
| Reverse leakage current | I_R | $V_{RWM}=5\text{V}$ | | | 1 | μA |
| Diode capacitance | C_d | $V_R=0\text{V}, f=1\text{MHz}$ | | | 430 | pF |
| Clamping voltage | $V_{(CL)}$ | $I_{PP}=1\text{A}$ | | | 9 | V |
| | | $I_{PP}=15\text{A}$ | | | 20 | |
| Differential resistance | R_{diff} | $I_R=1\text{mA}$ | | | 400 | Ω |
| | | $I_R=1\text{mA}$ | | | 80 | |
| | | $I_R=1\text{mA}$ | | | 200 | |
| | | $I_R=1\text{mA}$ | | | 225 | |
| | | $I_R=0.5\text{mA}$ | | | 300 | |

TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

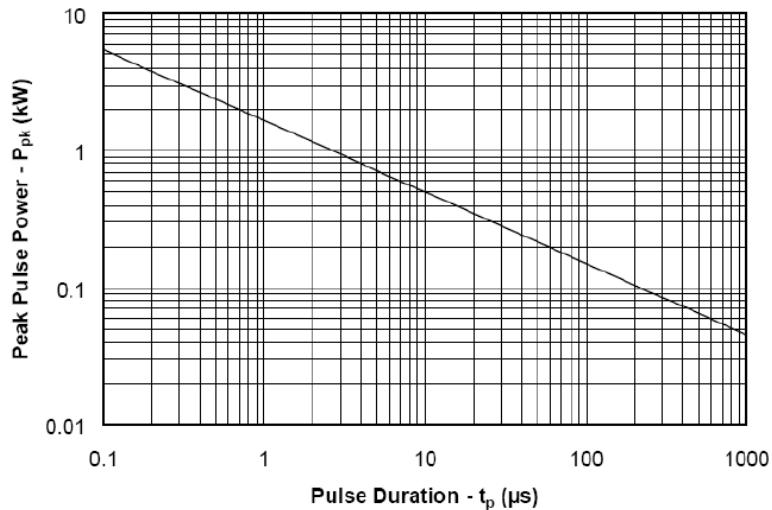


Fig.1 Non-Repetitive Peak Pulse Power vs. Pulse Time



GESD5V0D1

Single Line TVS Diode

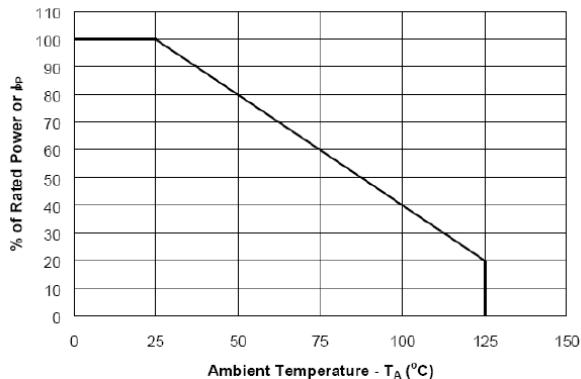


Fig.2 Power Derating Curve

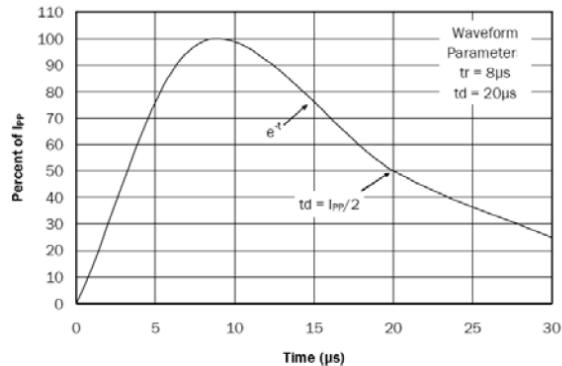


Fig.3 Waveform