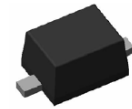


Features

- Ideal for automated placement
- Superior Reverse Avalanche Capability
- +175°C Operation Junction Temperature
- Low power loss, high efficiency, High Reliability
- High temperature soldering:
260°C/10 seconds at terminals
- Meets MSL level 1, per J-STD-020
- Component in accordance to RoHS 2011/65/EU



SOD-123FL



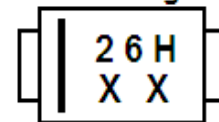
RoHS
COMPLIANT

HALOGEN
FREE
Available

Mechanical Date

- **Case:** SOD-123FL
Molding compound meets
UL 94 V-0 flammability rating
- **Terminals:** Solder plated, solderable per
MIL-STD-750, Method 2026
- **Polarity:** Laser band denotes cathode end

Marking



26=Product Type Marking Code
H = High junction temperature
XX = Date Code

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

| Characteristic | Symbol | Value | Unit |
|--|--------------------|-------------|------|
| Maximum repetitive peak reverse voltage | V _{RRM} | 60 | V |
| Maximum RMS voltage | V _{RMS} | 42 | V |
| Maximum DC blocking voltage | V _{DC} | 60 | V |
| Maximum average forward rectified current | I _{F(AV)} | 2 | A |
| Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load | I _{FSM} | 50 | A |
| Thermal resistance from junction to lead ⁽¹⁾ | R _{θJL} | 25 | °C/W |
| Thermal resistance from junction to ambient ⁽¹⁾ | R _{θJA} | 80 | °C/W |
| Operating junction temperature range | T _J | -65 to +175 | °C |
| Storage temperature range | T _{STG} | -65 to +175 | °C |

Note 1: Mounted on P.C.B. with 0.036 x 0.06" (0.9 x 1.5mm) copper pad areas.

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

| Items | Symbol | Test conditions | Min | Typ | Max | Unit | |
|-------------------------------|--------|---|-------------------------|------|------|------|---------------|
| Instantaneous forward voltage | V_F | $I_F=1A^{(2)}$, $T_J=25^\circ\text{C}$ | — | 0.6 | 0.65 | V | |
| | | $I_F=2A^{(2)}$, $T_J=25^\circ\text{C}$ | — | 0.65 | 0.72 | | |
| Reverse current | I_R | $V_R=V_{DC}$ | $T_J=25^\circ\text{C}$ | — | 0.1 | 0.70 | μA |
| | | | $T_J=125^\circ\text{C}$ | — | 60 | — | |

Note 2: Pulse test:300 μs pulse width,1% duty cycle

Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Figure 1 DC Forward Current Derating Curve

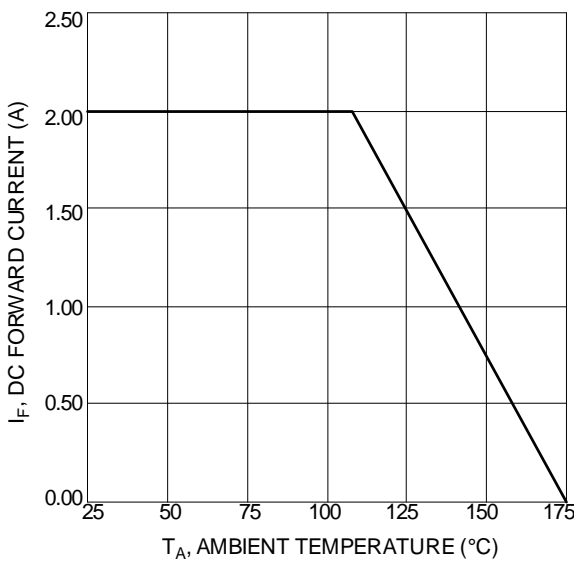


Figure 2 Forward Power Dissipation

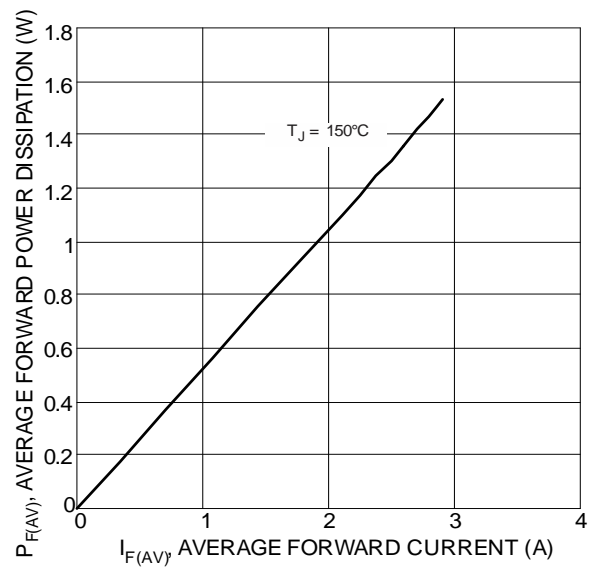


Figure 3 Typical Forward Characteristics

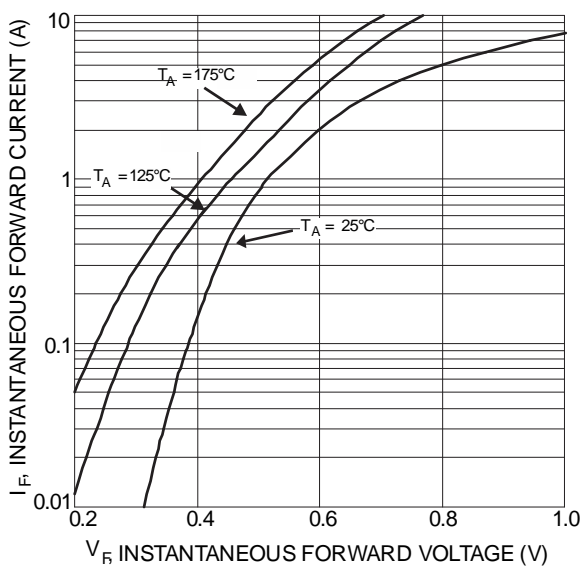
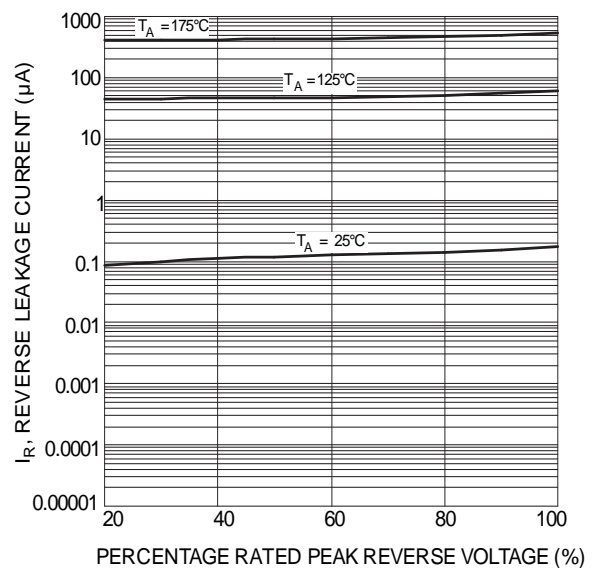
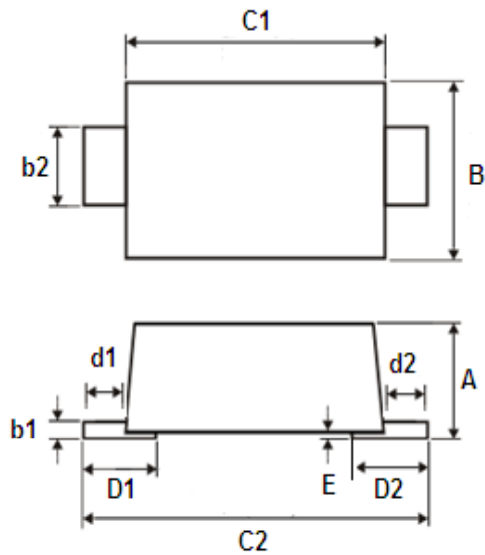


Figure 4 Typical Reverse Characteristics



Package Outline



| Ref. | Millimeters |
|-----------|-------------|
| A | 1.15±0.05 |
| B | 1.9±0.05 |
| b 1 | 0.15±0.05 |
| b 2 | 0.75±0.05 |
| C1 | 2.7±0.05 |
| C2 | 3.7±0.1 |
| D(D1、 D2) | 0.75±0.3 |
| d(d1、 d2) | 0.5±0.1 |
| E | 0-0.1 |