

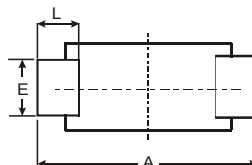
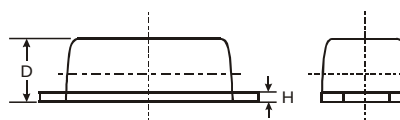
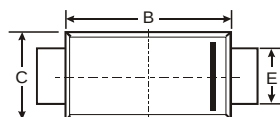
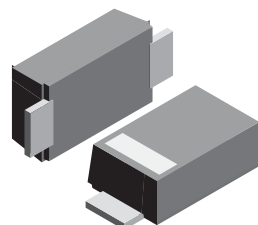
**VOLTAGE RANGE: 50 - 1000V**  
**CURRENT: 1.0A**

### Features

- Glass passivated device
- Ideal for surface mounted applications
- Low reverse leakage
- Metallurgically bonded construction
- High temperature soldering guaranteed:  
250°C/10 seconds, 0.375" (9.5mm) lead length,  
5 lbs. (2.3kg) tension

### Mechanical Data

- Case: JEDEC SOD-123FL molded plastic body over passivated junction
- Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.0007 ounce, 0.02 grams



| SOD-123FL            |       |      |      |
|----------------------|-------|------|------|
| Dim                  | Min   | Max  | Typ  |
| A                    | 3.58  | 3.72 | 3.65 |
| B                    | 2.72  | 2.78 | 2.75 |
| C                    | 1.77  | 1.83 | 1.80 |
| D                    | 1.02  | 1.08 | 1.05 |
| E                    | 0.097 | 1.03 | 1.00 |
| H                    | 0.13  | 0.17 | 0.15 |
| L                    | 0.53  | 0.57 | 0.55 |
| All Dimensions in mm |       |      |      |

### Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic                                                                                                        | Symbol                           | SOD1F1       | SOD1F2 | SOD1F3 | SOD1F4 | SOD1F5 | SOD1F6 | SOD1F7 | Unit |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------|--------------|--------|--------|--------|--------|--------|--------|------|
| Maximum repetitive peak reverse voltage                                                                               | V <sub>RRM</sub>                 | 50           | 100    | 200    | 400    | 600    | 800    | 1000   | V    |
| Maximum RMS voltage                                                                                                   | V <sub>RMS</sub>                 | 35           | 70     | 140    | 280    | 420    | 560    | 700    | V    |
| Maximum DC blocking voltage                                                                                           | V <sub>DC</sub>                  | 50           | 100    | 200    | 400    | 600    | 800    | 1000   | V    |
| Maximum average forward rectified current at T <sub>A</sub> =65°C (NOTE 1)                                            | I <sub>(AV)</sub>                | 1.0          |        |        |        |        |        |        | A    |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) T <sub>L</sub> =25°C | I <sub>FSM</sub>                 | 30.0         |        |        |        |        |        |        | A    |
| Maximum instantaneous forward voltage at 1.0A                                                                         | V <sub>F</sub>                   | 1.3          |        |        |        |        |        |        | V    |
| Maximum DC reverse current T <sub>A</sub> =25°C<br>at rated DC blocking voltage T <sub>A</sub> =100°C                 | I <sub>R</sub>                   | 5.0<br>100.0 |        |        |        |        |        |        | μA   |
| Maximum reverse recovery time (NOTE 2)                                                                                | t <sub>rr</sub>                  | 150          |        |        |        | 250    | 500    |        | ns   |
| Typical junction capacitance (NOTE 3)                                                                                 | C <sub>J</sub>                   | 15           |        |        |        |        |        |        | pF   |
| Typical thermal resistance (NOTE 4)                                                                                   | R <sub>θJA</sub>                 | 180          |        |        |        |        |        |        | K/W  |
| Operating junction and storage temperature range                                                                      | T <sub>J</sub> ,T <sub>STG</sub> | -50 to +150  |        |        |        |        |        |        | °C   |

**Note:** 1. Averaged over any 20ms period.  
2. Measured with  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{rr}=0.25\text{A}$ .  
3. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
4. Thermal resistance junction to ambient, 6.0 mm<sup>2</sup> copper pads to each terminal.

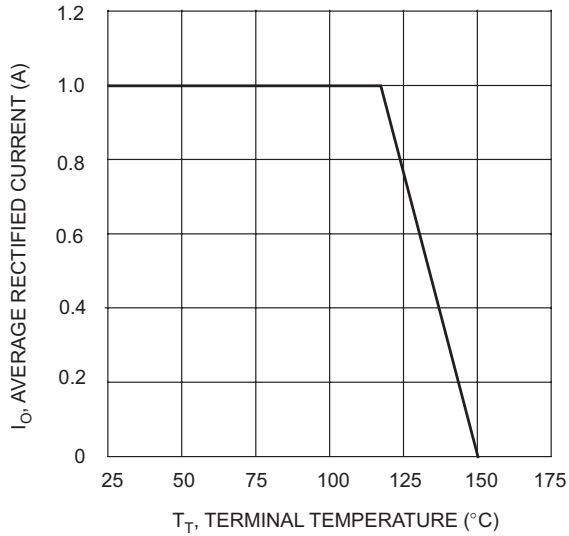


Fig. 1 Forward Current Derating Curve

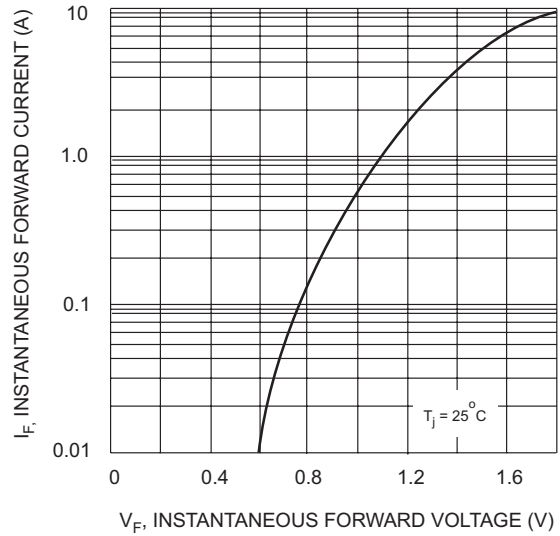


Fig. 2 Typical Forward Characteristics

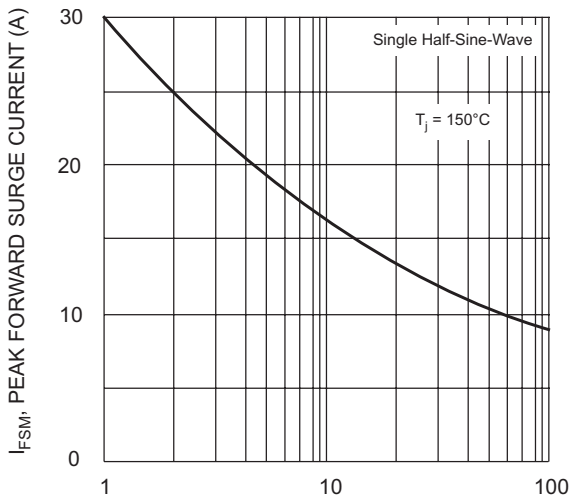


Fig. 3 Forward Surge Current Derating Curve

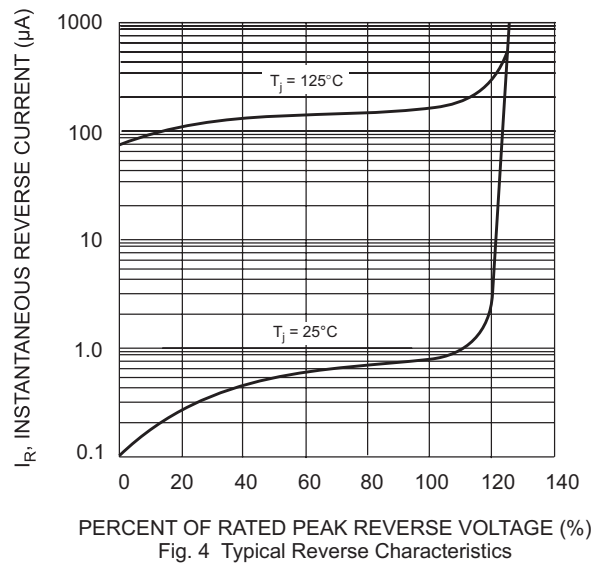
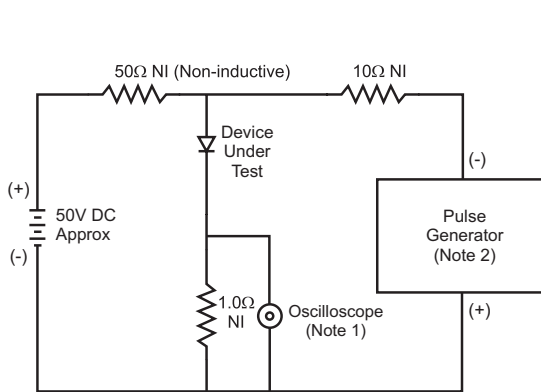


Fig. 4 Typical Reverse Characteristics



- Notes:
1. Rise Time = 7.0ns max. Input Impedance =  $1.0\text{M}\Omega$ , 22pF.
  2. Rise Time = 10ns max. Input Impedance =  $50\Omega$ .

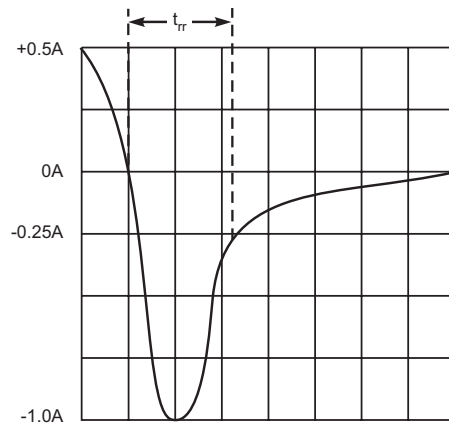


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

单击下面可查看定价，库存，交付和生命周期等信息

[>>SUNMATE\(森美特\)](#)