

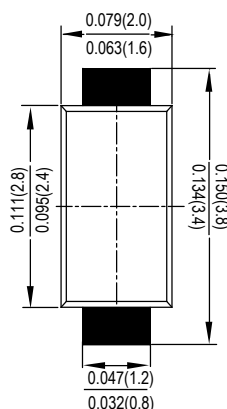


## Features

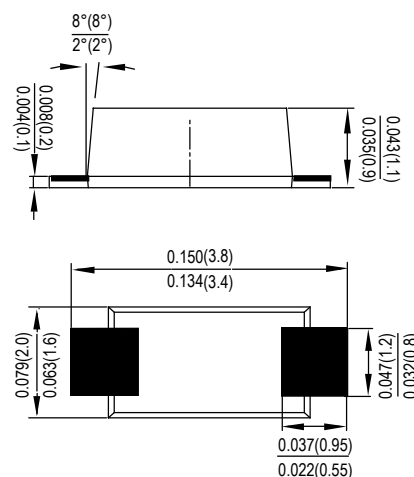
- Glass passivated die construction
- Ideal for surface mouted applications
- Low reverse leakage
- Metallurgically bonded construction
- High temperature soldering guaranteed:  
260℃/10 seconds,0.375"(9.5mm) lead length,  
5 lbs. (2.3kg) tension
- Plastic material-UL flammability 94V-0

## Mechanical Data

- Case: SOD-123FL, molded plastic
- Terminals: plated leads solderable per  
MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting position: Any



## SOD-123FL



Dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| TYPE NUMBER                                                                                                              | SYMBOL          | 4001L<br>A1 | 4002L<br>A2 | 4003L<br>A3 | 4004L<br>A4 | 4005L<br>A5 | 4006L<br>A6 | 4007L<br>A7 | UNITS         |
|--------------------------------------------------------------------------------------------------------------------------|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|
| Peak Repetitive Reverse Voltage                                                                                          | $V_{RRM}$       |             |             |             |             |             |             |             |               |
| Working Peak Reverse Voltage                                                                                             | $V_{RWM}$       | 50          | 100         | 200         | 400         | 600         | 800         | 1000        | V             |
| DC Blocking Voltage                                                                                                      | $V_{DC}$        |             |             |             |             |             |             |             |               |
| RMS Reverse Voltage                                                                                                      | $V_{RMS}$       | 35          | 70          | 140         | 280         | 420         | 560         | 700         | V             |
| Average Rectified Output Current @ $T_A=30^{\circ}C$                                                                     | $I_O$           | 1.0         |             |             |             |             |             |             | A             |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms<br>Single half sine-wave superimposed on rated load<br>(JEDEC Method) | $I_{FSM}$       | 30          |             |             |             |             |             |             | A             |
| Forward Voltage per element @ $I_F=1.0A$                                                                                 | $V_{FM}$        | 1.1         |             |             |             |             |             |             | V             |
| Peak Reverse Current @ $T_A=25^{\circ}C$<br>At Rated DC Blocking Voltage @ $T_A=100^{\circ}C$                            | $I_R$           | 5.0<br>100  |             |             |             |             |             |             | $\mu A$       |
| Typical thermal resistance (NOTE 1)                                                                                      | $R_{\theta JA}$ | 180         |             |             |             |             |             |             | $^{\circ}C/W$ |
| Typical junction capacitance (NOTE 2)                                                                                    | $C_J$           | 4           |             |             |             |             |             |             | pF            |
| Operating and Storage Temperature Range                                                                                  | $T_J, T_{STG}$  | -55to+150   |             |             |             |             |             |             | $^{\circ}C$   |

Note:1. Thermal resistance from junction to ambient at 0.375" (9.5mm)lead length,P.C.B. mounted

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.



FIG. 1- FORWARD CURRENT DERATING CURVE

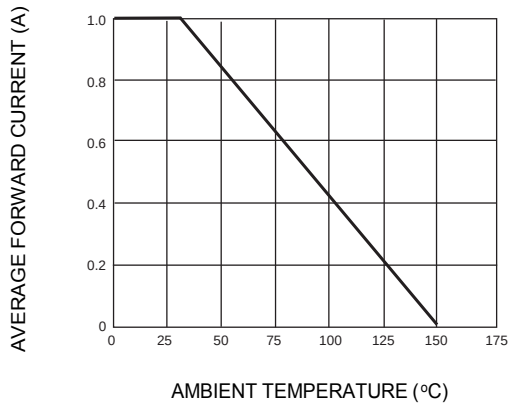


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

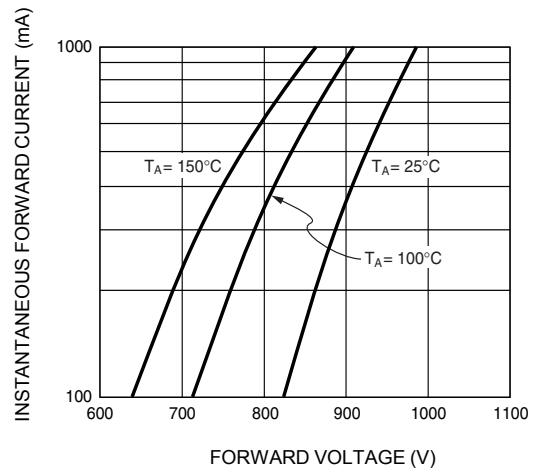


FIG. 3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

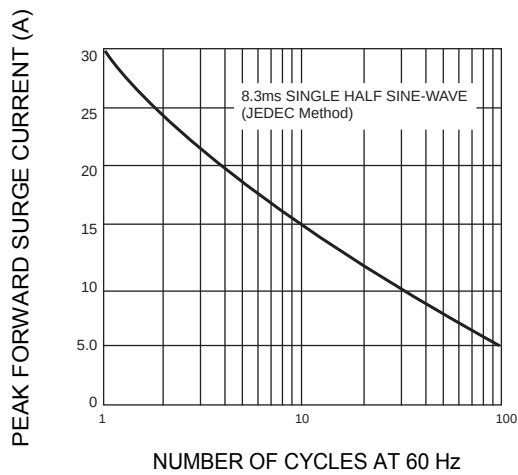


FIG. 4-TYPICAL JUNCTION CAPACITANCE

