



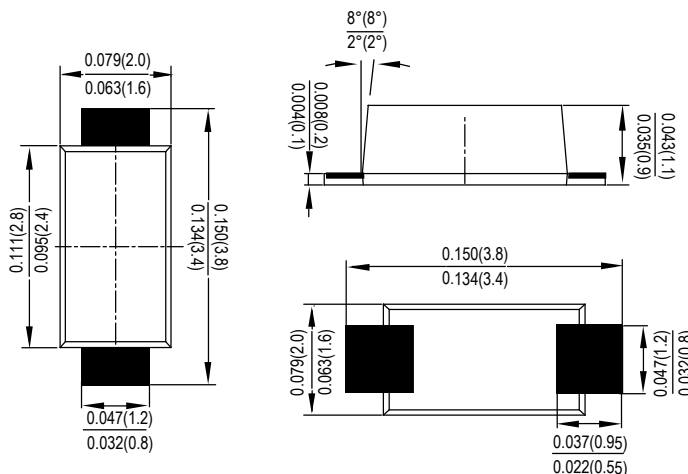
## Features

- 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<br>Code                    | F1         | F2  | F3  | F4  | F5  | F6  | F7   | UNITS |
|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------|------------|-----|-----|-----|-----|-----|------|-------|
| Peak Repetitive Reverse Voltage                                                                                          | V <sub>RRM</sub>                  | 50         | 100 | 200 | 400 | 600 | 800 | 1000 | V     |
| Working Peak Reverse Voltage                                                                                             | V <sub>RWM</sub>                  |            |     |     |     |     |     |      |       |
| DC Blocking Voltage                                                                                                      | V <sub>DC</sub>                   |            |     |     |     |     |     |      |       |
| RMS Reverse Voltage                                                                                                      | V <sub>RMS</sub>                  | 35         | 70  | 140 | 280 | 420 | 560 | 700  | V     |
| Average Rectified Output Current    @T <sub>A</sub> =30℃                                                                 | I <sub>O</sub>                    | 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 <sub>FSM</sub>                  | 30         |     |     |     |     |     |      | A     |
| Forward Voltage per element    @I <sub>F</sub> =1.0A                                                                     | V <sub>FM</sub>                   | 1.3        |     |     |     |     |     |      | V     |
| Peak Reverse Current                @T <sub>A</sub> =25℃<br>At Rated DC Blocking Voltage    @T <sub>A</sub> =100℃        | I <sub>R</sub>                    | 5.0<br>100 |     |     |     |     |     |      | uA    |
| Maximum reverse recovery time (NOTE 1)                                                                                   | trr                               | 150        |     |     |     | 250 | 500 |      | ns    |
| Typical junction capacitance (NOTE 2)                                                                                    | C <sub>J</sub>                    | 15         |     |     |     |     |     |      | pF    |
| Operating and Storage Temperature Range                                                                                  | T <sub>J</sub> , T <sub>STG</sub> | -55to+150  |     |     |     |     |     |      | ℃     |

Note:1. Measured with  $I_F=0.5A$ ,  $I_R=1A$ ,  $I_{rr}=0.25A$ .

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



FIG. 1- FORWARD CURRENT DERATING CURVE

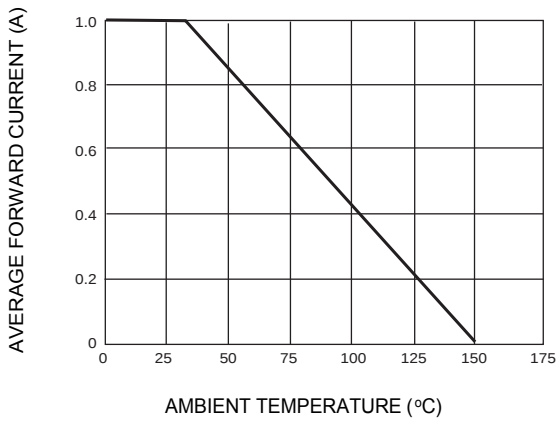


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

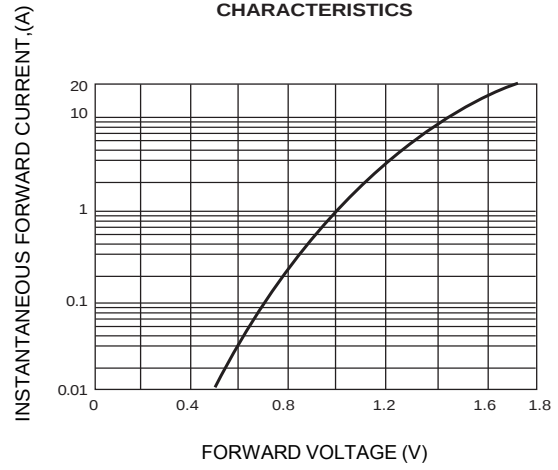


FIG. 3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

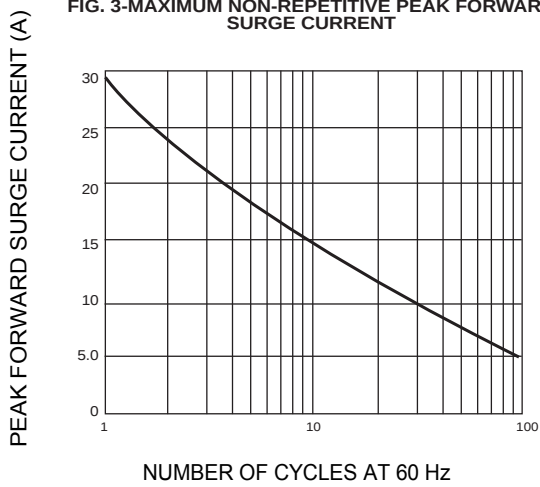


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

