

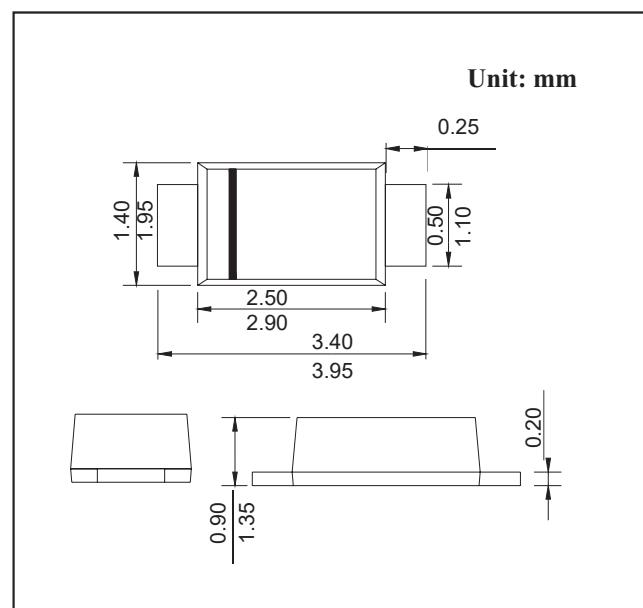
## SOD123FL PLASTIC SILICON RECTIFIERS

### FEATURES

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

### MECHANICAL DATA

- Case: SOD-123FL
- Terminals: Solderable per MIL-STD-750, Method 2026
- Mounting Position: Any



### MAXIMUM RATINGS AND CHARACTERISTICS

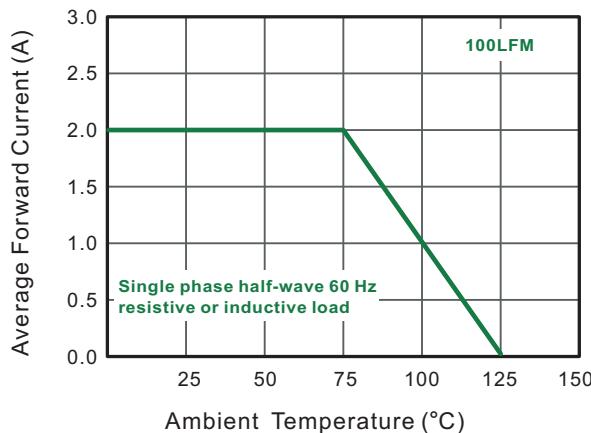
@ 25°C Ambient Temperature (unless otherwise noted)

| Parameter   | Symbols     | SS22       | SS24 | SS26     | SS28 | SS210 | SS212 | SS215 | SS220 | Units      |  |  |  |  |  |  |  |  |
|---|-------------|------------|------|----------|------|-------|-------|-------|-------|------------|--|--|--|--|--|--|--|--|
| Maximum Repetitive Peak Reverse Voltage   | $V_{RRM}$   | 20         | 40   | 60       | 80   | 100   | 120   | 150   | 200   | V          |  |  |  |  |  |  |  |  |
| Maximum RMS voltage   | $V_{RMS}$   | 14         | 28   | 42       | 56   | 70    | 84    | 105   | 140   | V          |  |  |  |  |  |  |  |  |
| Maximum DC Blocking Voltage   | $V_{DC}$    | 20         | 40   | 60       | 80   | 100   | 120   | 150   | 200   | V          |  |  |  |  |  |  |  |  |
| Maximum Average Forward Rectified Current   | $I_{F(AV)}$ | 2.0        |      |          |      |       |       |       | A     |            |  |  |  |  |  |  |  |  |
| Peak Forward Surge Current, 8.3ms<br>Single Half Sine-wave Superimposed<br>on Rated Load (JEDEC method) | $I_{FSM}$   | 50         |      |          |      | 40    |       |       |       | A          |  |  |  |  |  |  |  |  |
| Max Instantaneous Forward Voltage at 2A   | $V_F$       | 0.55       |      | 0.70     |      | 0.85  |       | 0.95  |       | V          |  |  |  |  |  |  |  |  |
| Maximum DC Reverse Current $T_a = 25^\circ C$<br>at Rated DC Reverse Voltage $T_a = 100^\circ C$        | $I_R$       | 0.5<br>10  |      | 0.3<br>5 |      |       |       |       |       | mA         |  |  |  |  |  |  |  |  |
| Typical Junction Capacitance <sup>1)</sup>  | $C_j$       | 220        |      | 80       |      |       |       |       |       | pF         |  |  |  |  |  |  |  |  |
| Operating Junction Temperature Range  | $T_j$       | -55 ~ +125 |      |          |      |       |       |       |       | $^\circ C$ |  |  |  |  |  |  |  |  |
| Storage Temperature Range   | $T_{stg}$   | -55 ~ +150 |      |          |      |       |       |       |       | $^\circ C$ |  |  |  |  |  |  |  |  |

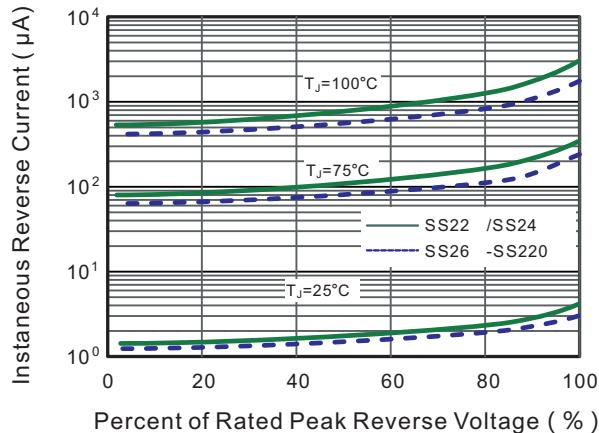
<sup>1)</sup>Measured at 1MHz and applied reverse voltage of 4 V D.C.

## RATINGS AND CHARACTERISTIC CURVES

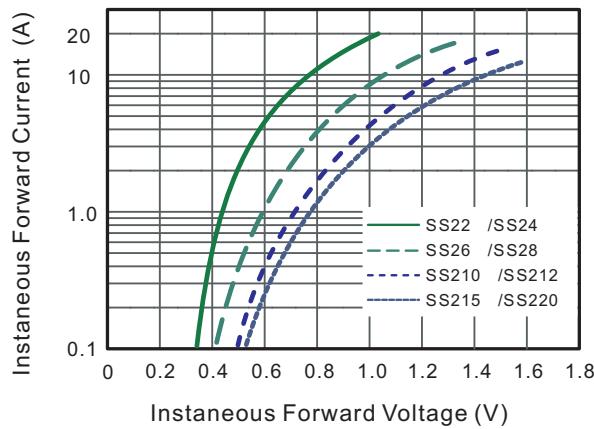
**Fig.1 Forward Current Derating Curve**



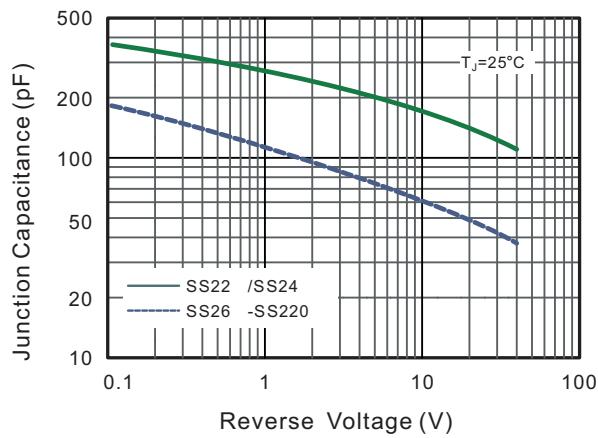
**Fig.2 Typical Reverse Characteristics**



**Fig.3 Typical Forward Characteristic**



**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**

