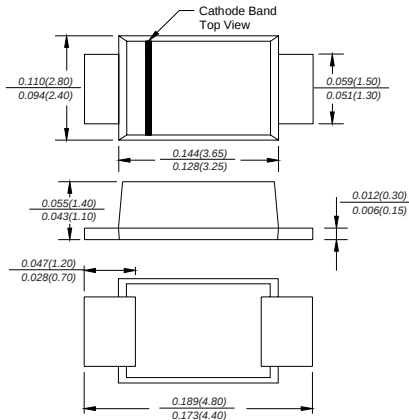


### SMAF



Dimensions in inches and (millimeters)

### FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 260°C/10 seconds at terminals

### MECHANICAL DATA

**Case:** SMAF molded plastic body

**Terminals:** leads solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.0014 ounce, 0.038 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

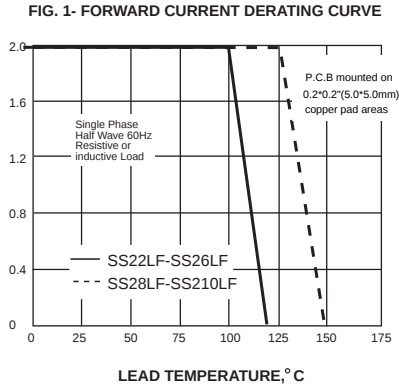
|                                                                                                               | SYMBOLS           | SS22LF      | SS23LF | SS24LF | SS25LF | SS26LF | SS28LF      | SS210LF | UNITS |
|---------------------------------------------------------------------------------------------------------------|-------------------|-------------|--------|--------|--------|--------|-------------|---------|-------|
| Maximum repetitive peak reverse voltage                                                                       | V <sub>RRM</sub>  | 20          | 30     | 40     | 50     | 60     | 80          | 100     | V     |
| Maximum RMS voltage                                                                                           | V <sub>RMS</sub>  | 14          | 21     | 28     | 35     | 42     | 56          | 70      | V     |
| Maximum DC blocking voltage                                                                                   | V <sub>DC</sub>   | 20          | 30     | 40     | 50     | 60     | 80          | 100     | V     |
| Maximum average forward rectified current at T <sub>L</sub> (see fig.1)                                       | I <sub>(AV)</sub> | 2.0         |        |        |        |        |             |         | A     |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on rated load                          | I <sub>FSM</sub>  | 50.0        |        |        |        |        |             |         | A     |
| Maximum instantaneous forward voltage at 2.0A                                                                 | V <sub>F</sub>    | 0.45        |        |        | 0.5    |        | 0.7         |         | 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>    | 0.5         |        |        |        |        | 0.2         |         | mA    |
|                                                                                                               |                   | 10.0        |        |        |        |        | 5.0         |         |       |
| Typical junction capacitance (NOTE 1)                                                                         | C <sub>J</sub>    | 220         |        |        | 180    |        |             |         | pF    |
| Typical thermal resistance (NOTE 2)                                                                           | R <sub>θJA</sub>  | 90.0        |        |        |        |        |             |         | °C/W  |
| Operating junction temperature range                                                                          | T <sub>J</sub>    | -55 to +125 |        |        |        |        | -55 to +150 |         | °C    |
| Storage temperature range                                                                                     | T <sub>STG</sub>  | -55 to +150 |        |        |        |        |             |         | °C    |

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

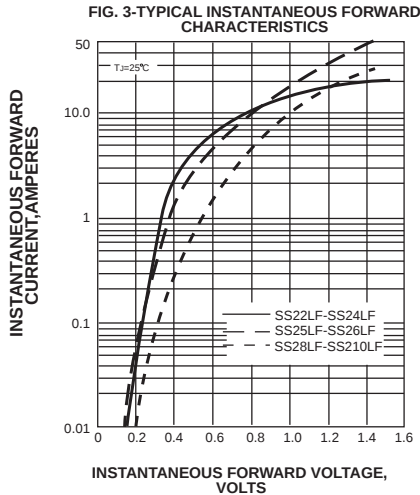
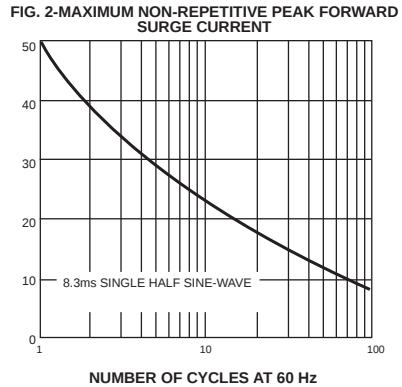
2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

# RATINGS AND CHARACTERISTIC CURVES SS22LF THRU SS210LF

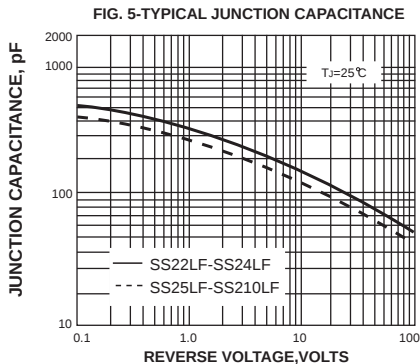
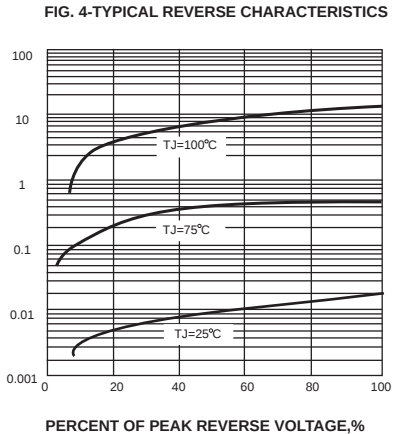
AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES



PEAK FORWARD SURGE CURRENT,  
AMPERES



INSTANTANEOUS REVERSE CURRENT,  
MILLIAMPERES



TRANSIENT THERMAL IMPEDANCE,  
°C/W

