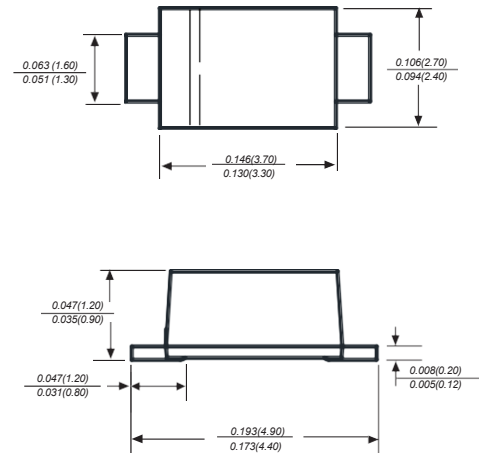


## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

### 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

SMAF



Dimensions in inches and (millimeters)

### 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%.

| Parameter                                                                                                 | SYMBOLS                        | SS12F       | SS13F | SS14F | SS15F | SS16F      | SS18F      | SS110F | SS1150F    | SS1200F | UNITS |
|-----------------------------------------------------------------------------------------------------------|--------------------------------|-------------|-------|-------|-------|------------|------------|--------|------------|---------|-------|
| Marking Code                                                                                              |                                |             |       |       |       |            |            |        |            |         |       |
| Maximum repetitive peak reverse voltage                                                                   | V <sub>RRM</sub>               | 20          | 30    | 40    | 50    | 60         | 80         | 100    | 150        | 200     | V     |
| Maximum RMS voltage                                                                                       | V <sub>RMS</sub>               | 14          | 21    | 28    | 35    | 42         | 56         | 70     | 105        | 140     | V     |
| Maximum DC blocking voltage                                                                               | V <sub>DC</sub>                | 20          | 30    | 40    | 50    | 60         | 80         | 100    | 150        | 200     | V     |
| Maximum average forward rectified current at TL(see fig.1)                                                | I <sub(av)< sub=""></sub(av)<> | 1.0         |       |       |       |            |            |        |            |         | A     |
| Peak forward surge current<br>8.3ms single half sine-wave<br>superimposed on rated load (JEDEC Method)    | I <sub>FSM</sub>               | 25          |       |       |       |            |            |        |            |         | A     |
| Maximum instantaneous forward voltage at 1.0A                                                             | V <sub>F</sub>                 | 0.55        |       |       | 0.70  |            | 0.85       |        | 0.90       |         | V     |
| Maximum DC reverse current<br>at rated DC blocking voltage<br>T <sub>A</sub> =25℃<br>T <sub>A</sub> =100℃ | I <sub>R</sub>                 | 0.3<br>10.0 |       |       |       |            | 0.2<br>5.0 |        | 0.1<br>2.0 |         | mA    |
| Typical junction capacitance (NOTE 1)                                                                     | C <sub>J</sub>                 | 110         |       |       | 80    |            |            |        |            |         | pF    |
| Typical thermal resistance (NOTE 2)                                                                       | R <sub>θJA</sub>               | 95.0        |       |       |       |            |            |        |            |         | ℃/W   |
| Operating junction temperature range                                                                      | T <sub>J</sub>                 | -55 to +125 |       |       |       | -55to +150 |            |        |            |         | ℃     |
| Storage temperature range                                                                                 | T <sub>STG</sub>               | -55to +150  |       |       |       |            |            |        |            |         | ℃     |

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

2. P.C.B. mounted with 2.0"x2.0" (5.0x5.0cm) copper pad areas

## Typical Characteristics

Fig.1 Forward Current Derating Curve

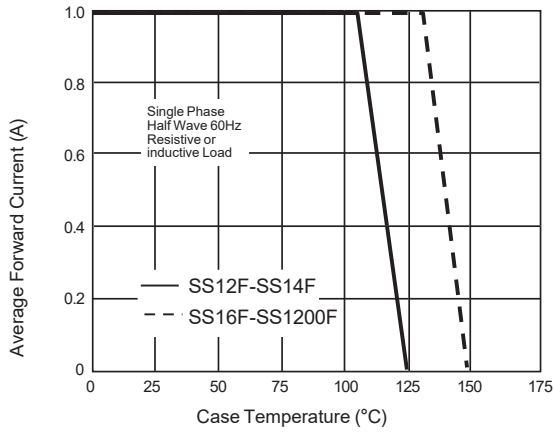


Fig.2 Typical Reverse Characteristics

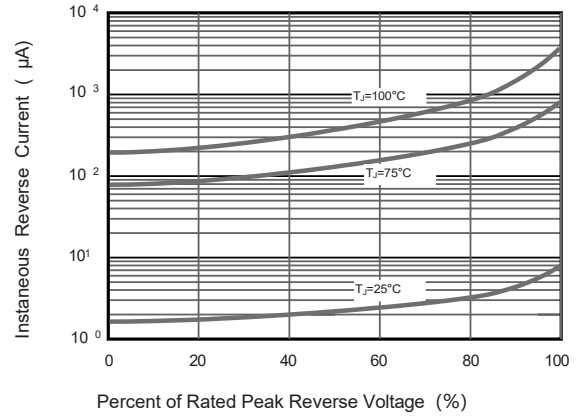


Fig.3 Typical Forward Characteristic

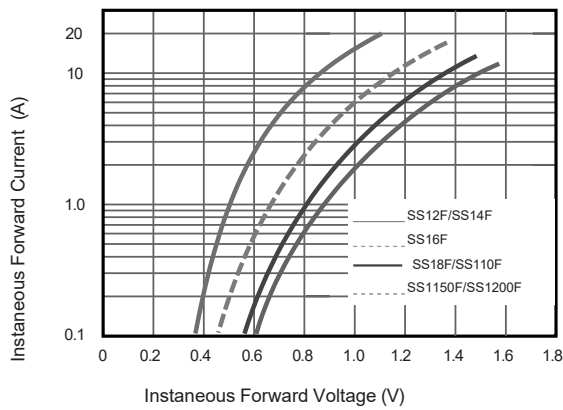


Fig.4 Typical Junction Capacitance

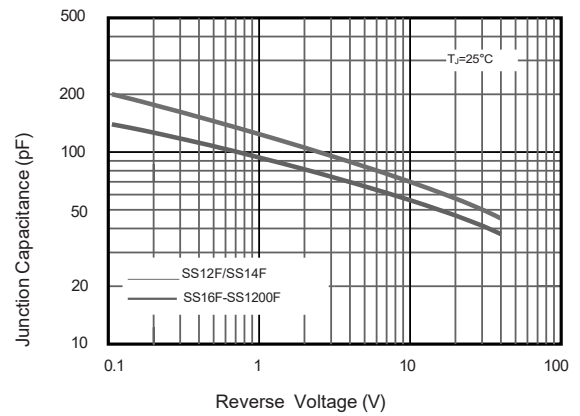


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

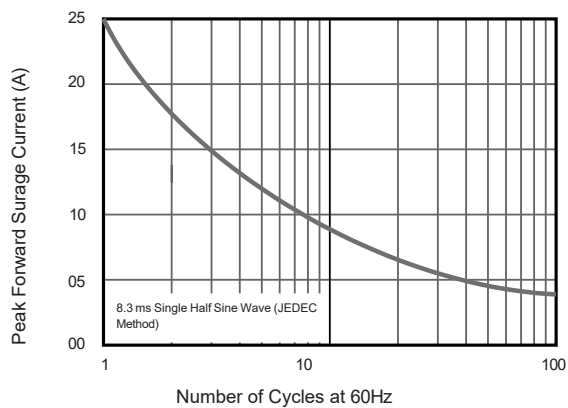
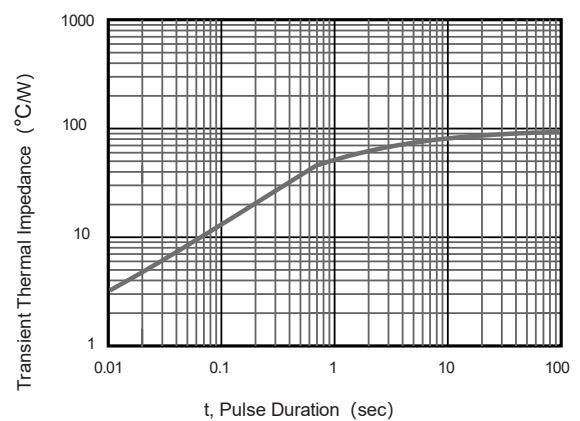


Fig.6 Typical Transient Thermal Impedance



The curve above is for reference only.