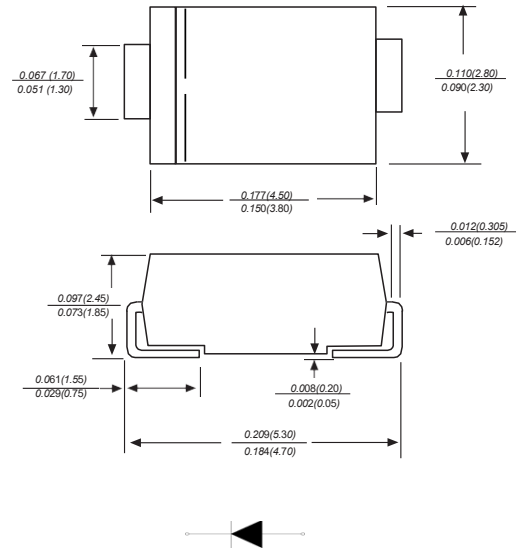


## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

### 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:  
250 °C/10 seconds at terminals

### DO-214AC/SMA



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                        | SS52        | SS53 | SS54 | SS55        | SS56 | SS58 | SS510 | SS5150 | SS5200 | 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                                                                 | I <sub(av)< sub=""></sub(av)<> | 5.0         |      |      |             |      |      |       |        |        | A     |
| Peak forward surge current<br>8.3ms single half sine-wave<br>superimposed on rated load (JEDEC Method)    | I <sub>FSM</sub>               | 120         |      |      |             |      |      |       |        |        | A     |
| Maximum instantaneous forward voltage at 5.0A                                                             | V <sub>F</sub>                 | 0.55        |      |      | 0.70        |      | 0.85 |       |        |        | V     |
| Maximum DC reverse current    T <sub>A</sub> =25℃<br>at rated DC blocking voltage    T <sub>A</sub> =100℃ | I <sub>R</sub>                 | 1.0<br>50   |      |      |             |      |      |       |        |        | mA    |
| Typical junction capacitance (NOTE 1)                                                                     | C <sub>J</sub>                 | 500         |      |      | 300         |      |      |       |        |        | pF    |
| Typical thermal resistance (NOTE 2)                                                                       | R <sub>θJA</sub>               | 60.0        |      |      |             |      |      |       |        |        | ℃/W   |
| Operating junction temperature range                                                                      | T <sub>J</sub>                 | -55 to +125 |      |      | -55 to +150 |      |      |       |        |        | ℃     |
| Storage temperature range                                                                                 | T <sub>STG</sub>               | -55 to +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

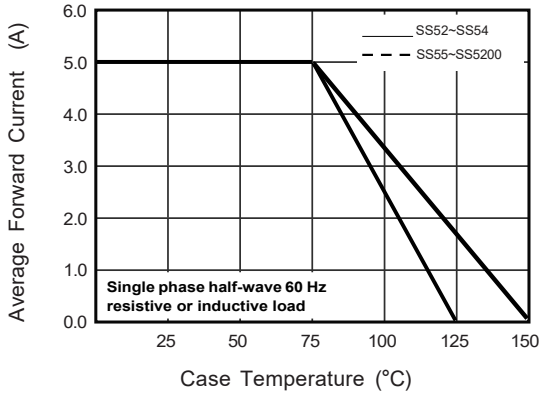


Fig.2 Typical Reverse Characteristics

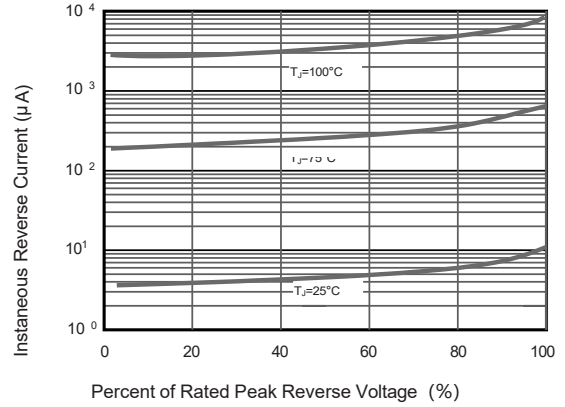


Fig.3 Typical Forward Characteristic

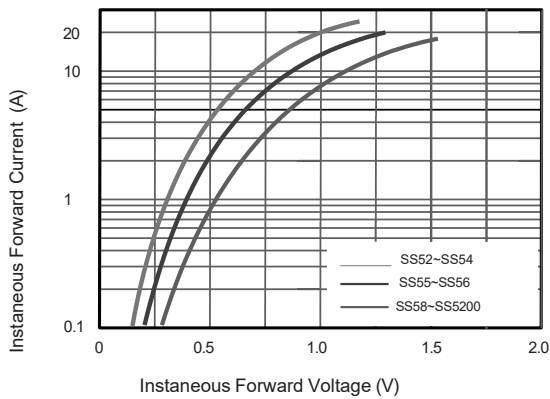


Fig.4 Typical Junction Capacitance

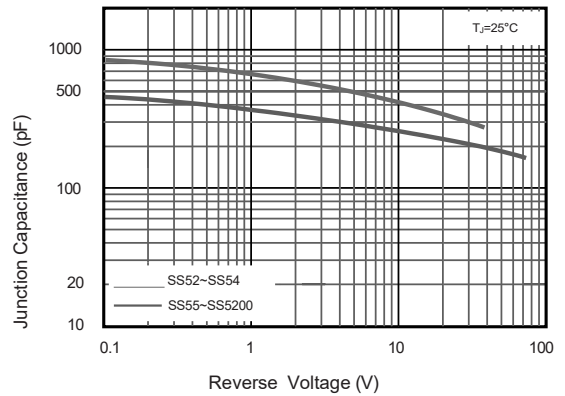


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

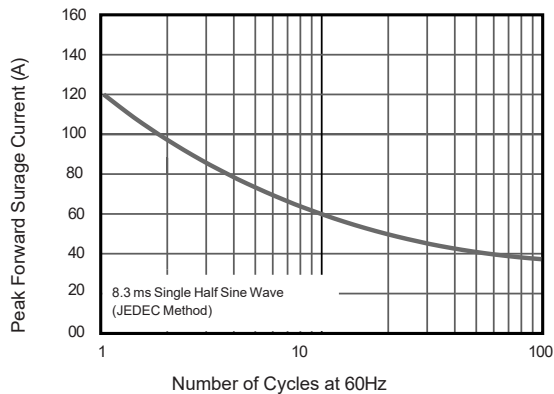
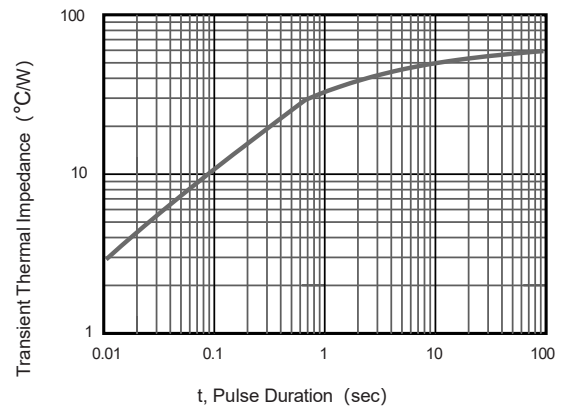


Fig.6- Typical Transient Thermal Impedance



The curve above is for reference only.