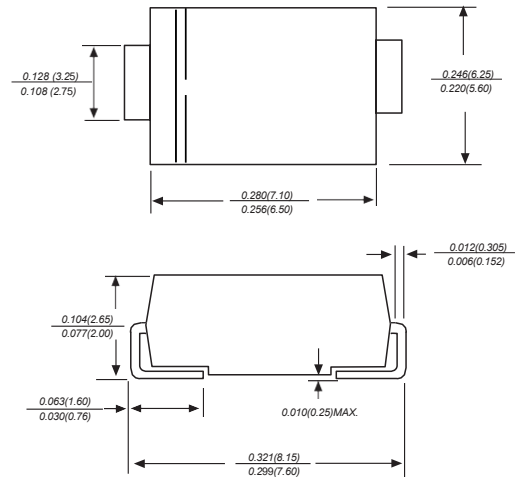


## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

### 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-214AB/SMC



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           | SS82C       | SS84C | SS86C | SS88C | SS810C | SS815C | SS820C | UNITS |
|--------------------------------------------------------------------------------------------------------|-------------------|-------------|-------|-------|-------|--------|--------|--------|-------|
| Marking Code                                                                                           |                   |             |       |       |       |        |        |        |       |
| Maximum repetitive peak reverse voltage                                                                | V <sub>RRM</sub>  | 20          | 40    | 60    | 80    | 100    | 150    | 200    | V     |
| Maximum RMS voltage                                                                                    | V <sub>RMS</sub>  | 14          | 28    | 42    | 56    | 70     | 105    | 140    | V     |
| Maximum DC blocking voltage                                                                            | V <sub>DC</sub>   | 20          | 40    | 60    | 80    | 100    | 150    | 200    | V     |
| Maximum average forward rectified current at TL(see fig.1)                                             | I <sub>(AV)</sub> | 8.0         |       |       |       |        |        |        | A     |
| Peak forward surge current<br>8.3ms single half sine-wave<br>superimposed on rated load (JEDEC Method) | I <sub>FSM</sub>  | 150         |       |       |       |        |        |        | A     |
| Maximum instantaneous forward voltage at 8.0A                                                          | V <sub>F</sub>    | 0.45        | 0.55  | 0.70  | 0.85  |        | 0.95   |        | V     |
| Maximum DC reverse current<br>at rated DC blocking voltage                                             | I <sub>R</sub>    | 1.0<br>50   |       |       |       |        |        |        | mA    |
| Typical junction capacitance (NOTE 1)                                                                  | C <sub>J</sub>    | 900         |       | 600   |       |        |        |        | pF    |
| Typical thermal resistance (NOTE 2)                                                                    | R <sub>θJA</sub>  | 35          |       |       |       |        |        |        | °C/W  |
| Operating junction temperature range                                                                   | T <sub>J</sub>    | -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 2.0"x2.0" (5.0x5.0cm) copper pad areas

## Typical Characteristics

Fig.1 Forward Current Derating Curve

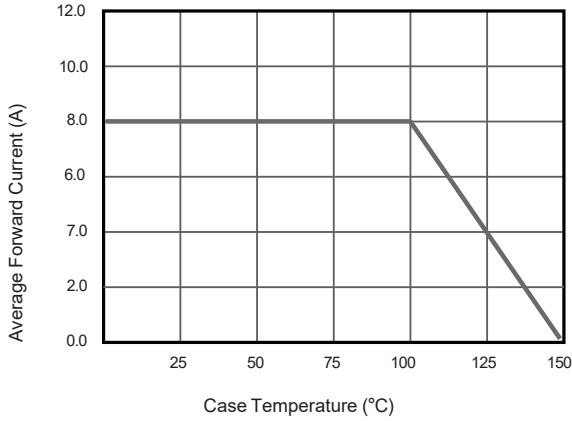


Fig.2 Typical Reverse Characteristics

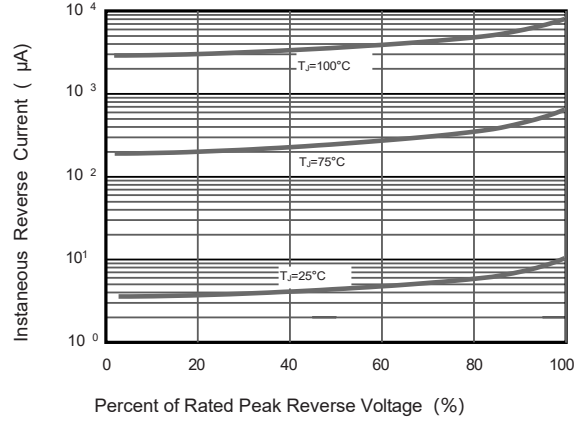


Fig.3 Typical Forward Characteristic

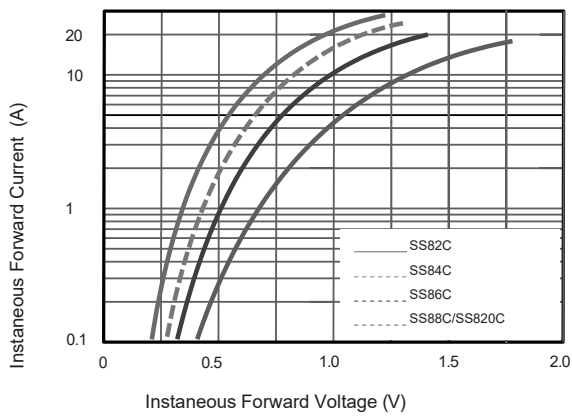


Fig.4 Typical Junction Capacitance

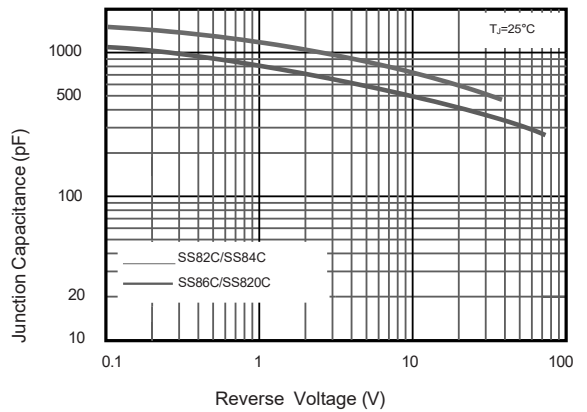


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

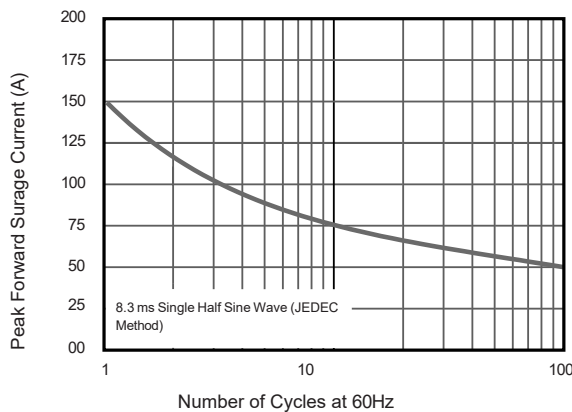
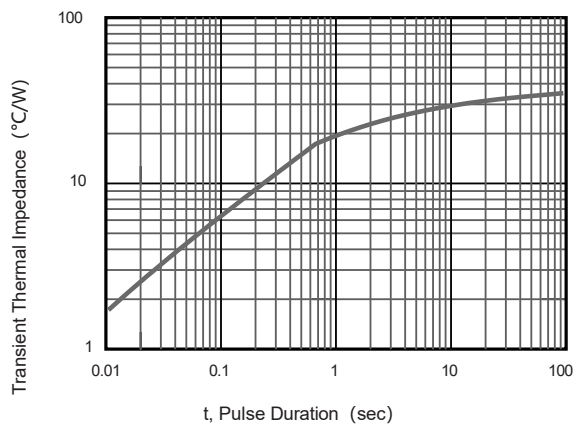


Fig.6 Typical Transient Thermal Impedance



The curve above is for reference only.