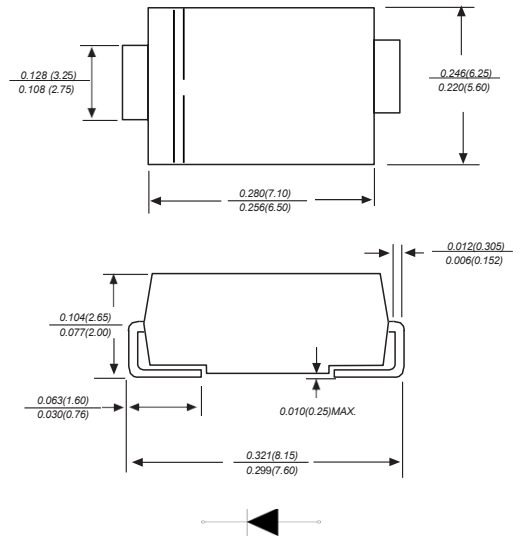


## SURFACE MOUNT GENERAL RECTIFIER

### Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Low reverse leakage
- ◆ 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         | S10AC       | S10BC | S10DC | S10GC | S10JC | S10KC | S10MC | UNITS         |
|--------------------------------------------------------------------------------------------------------|-----------------|-------------|-------|-------|-------|-------|-------|-------|---------------|
| Marking Code                                                                                           |                 |             |       |       |       |       |       |       |               |
| Maximum repetitive peak reverse voltage                                                                | $V_{RRM}$       | 50          | 100   | 200   | 400   | 600   | 800   | 1000  | V             |
| Maximum RMS voltage                                                                                    | $V_{RMS}$       | 35          | 70    | 140   | 280   | 420   | 560   | 700   | V             |
| Maximum DC blocking voltage                                                                            | $V_{DC}$        | 50          | 100   | 200   | 400   | 600   | 800   | 1000  | V             |
| Maximum average forward rectified current                                                              | $I_{(AV)}$      | 10.0        |       |       |       |       |       |       | A             |
| Peak forward surge current<br>8.3ms single half sine-wave<br>superimposed on rated load (JEDEC Method) | $I_{FSM}$       | 200         |       |       |       |       |       |       | A             |
| Maximum instantaneous forward voltage at 10.0A                                                         | $V_F$           | 1.0         |       |       |       |       |       |       | V             |
| Maximum DC reverse current<br>$T_A=25^{\circ}C$<br>at rated DC blocking voltage<br>$T_A=125^{\circ}C$  | $I_R$           | 5<br>100    |       |       |       |       |       |       | $\mu A$       |
| Typical junction capacitance (NOTE 1)                                                                  | $C_J$           | 100         |       |       |       |       |       |       | pF            |
| Typical thermal resistance (NOTE 2)                                                                    | $R_{\theta JA}$ | 10          |       |       |       |       |       |       | $^{\circ}C/W$ |
| Operating junction and storage temperature range                                                       | $T_J, T_{STG}$  | -55 to +150 |       |       |       |       |       |       | $^{\circ}C$   |

**Note:** 1. Measured at 1 MHz and applied reverse voltage of 4 V D.C  
2. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

## Typical Characteristics

Fig.1 Forward Current Derating Curve

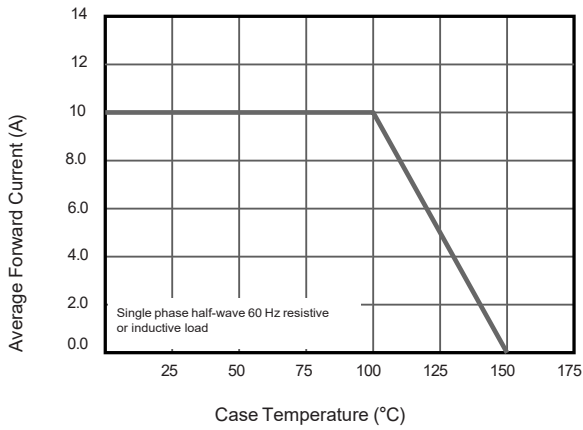


Fig.2 Typical Reverse Characteristics

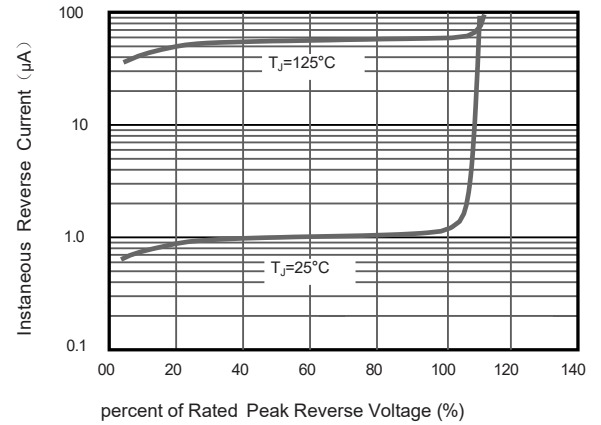


Fig.3 Typical Forward Characteristic

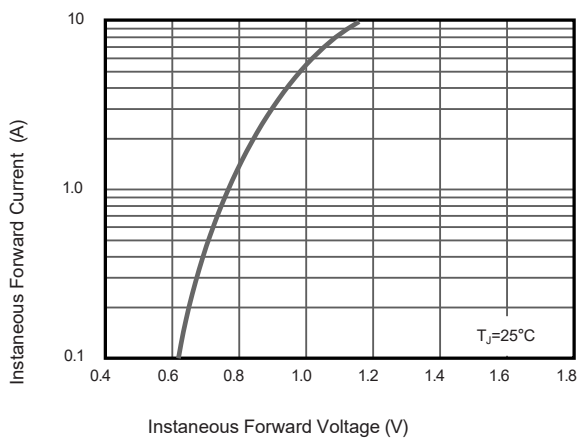


Fig.4 Typical Junction Capacitance

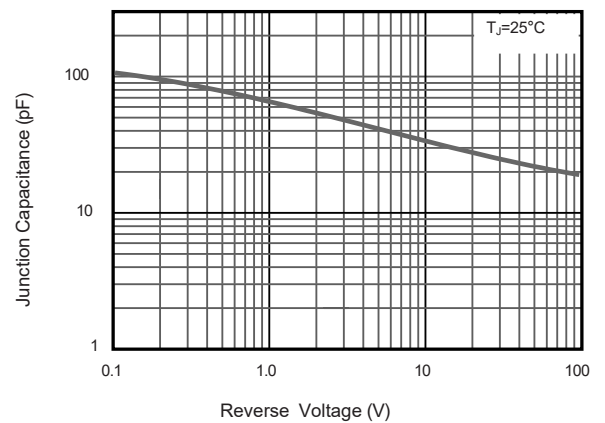
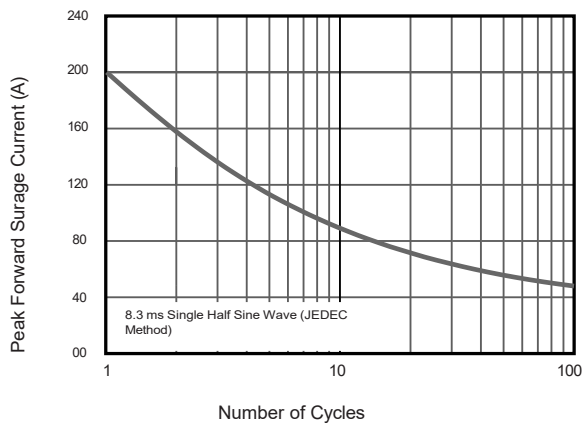


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.