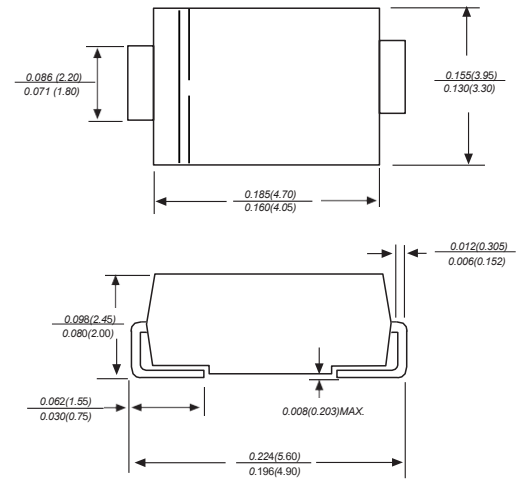


## SURFACE MOUNT GENERAL RECTIFIER

### Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Idea for printed circuit board
- ◆ Open Junction chip
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed  
250°C/10 seconds at terminals

### DO-214AA/SMB



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                            | S3AB        | S3BB | S3DB | S3GB | S3JB | S3KB | S3MB | 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                                                              | $I_{(AV)}$                         | 3.0         |      |      |      |      |      |      | A             |
| Peak forward surge current<br>8.3ms single half sine-wave<br>superimposed on rated load (JEDEC Method) | $I_{FSM}$                          | 90          |      |      |      |      |      |      | A             |
| Maximum instantaneous forward voltage at 3.0A                                                          | $V_F$                              | 1.1         |      |      |      |      |      |      | 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)                                                                  | $C_J$                              | 35          |      |      |      |      |      |      | pF            |
| Typical thermal resistance (NOTE 2)                                                                    | $R_{\theta JA}$<br>$R_{\theta JC}$ | 48<br>16    |      |      |      |      |      |      | $^{\circ}C/W$ |
| Operating junction and storage temperature range                                                       | $T_J, T_{STG}$                     | -55 to +150 |      |      |      |      |      |      | $^{\circ}C$   |

**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

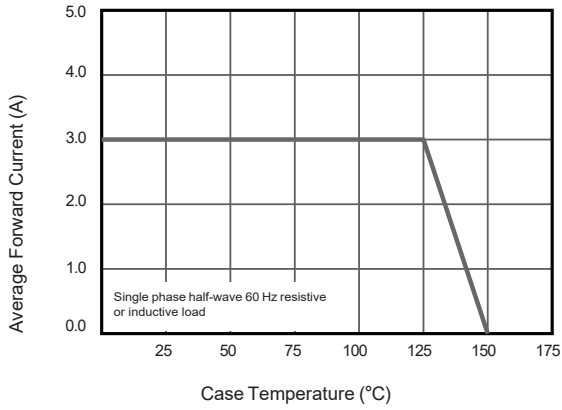


Fig.2 Typical Instantaneous Reverse Characteristics

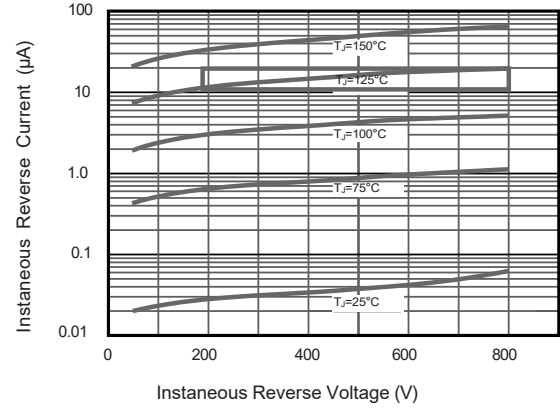


Fig.3 Typical Forward Characteristic

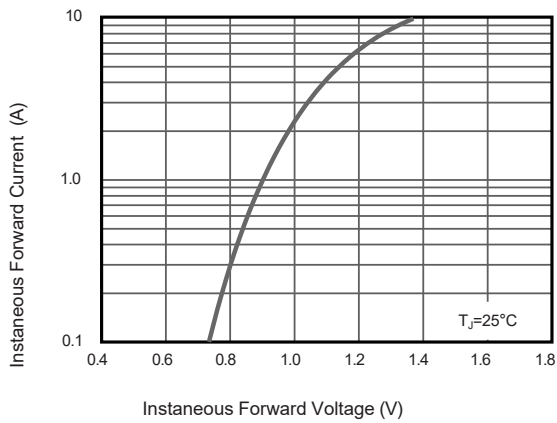


Fig.4 Typical Junction Capacitance

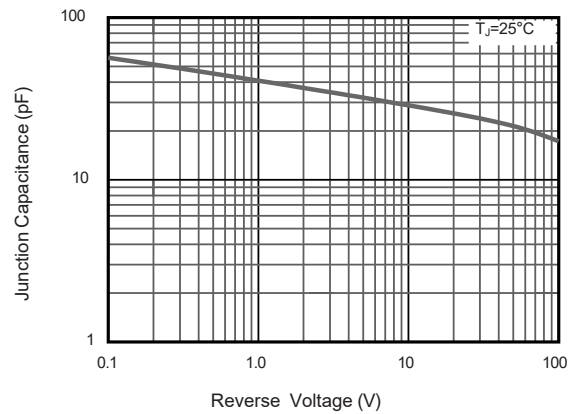
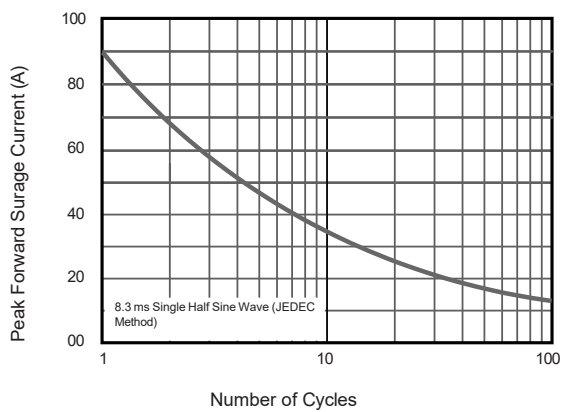


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.