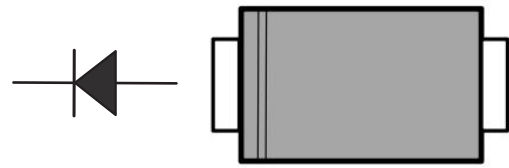


Surface Mount General Purpose Silicon Rectifiers

| Parameter | Value | Unit |
|-------------|---------|------|
| V_{RRM} | 50~1000 | V |
| $I_{F(AV)}$ | 2.0 | A |



SMAF

Features

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place

Applications

- For use in general purpose rectification in power supplies, inverters, converters, and as freewheeling diodes for consumer and telecommunications applications.

Absolute Maximum Ratings and Characteristics (Ta=25°C unless otherwise noted)

| Parameter | Symbol | S2AF | S2BF | S2DF | S2GF | S2JF | S2KF | S2MF | Units |
|--|-----------------|------------|------|------|------|------|------|------|---------------|
| 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 | $I_{F(AV)}$ | 2.0 | | | | | | | A |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load | I_{FSM} | 50 | | | | | | | A |
| Maximum Instantaneous Forward Voltage at 2A | V_F | 1.1 | | | | | | | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | I_R | 5 | | | | | | | μA |
| | | 100 | | | | | | | |
| Typical Junction Capacitance (1) | C_j | 22 | | | | | | | pF |
| Typical Thermal Resistance (2) | $R_{\theta JA}$ | 65 | | | | | | | $^{\circ}C/W$ |
| | $R_{\theta JC}$ | 20 | | | | | | | |
| Operating and Storage Temperature Range | T_j, T_{stg} | -55 ~ +150 | | | | | | | $^{\circ}C$ |

(1) Measured at 1 MHz and applied reverse voltage of 4 VD.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

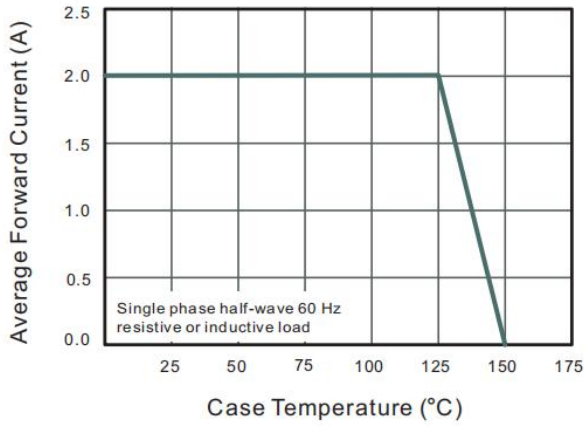


Fig.2 Typical Instantaneous Reverse Characteristics

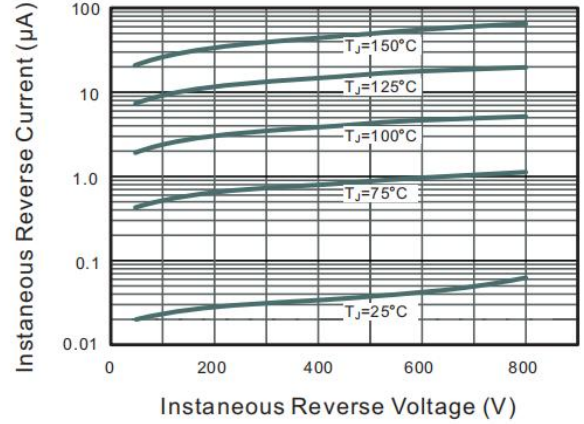


Fig.3 Typical Forward Characteristic

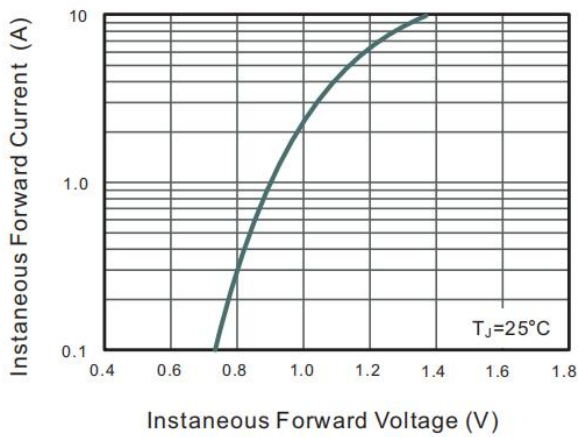


Fig.4 Typical Junction Capacitance

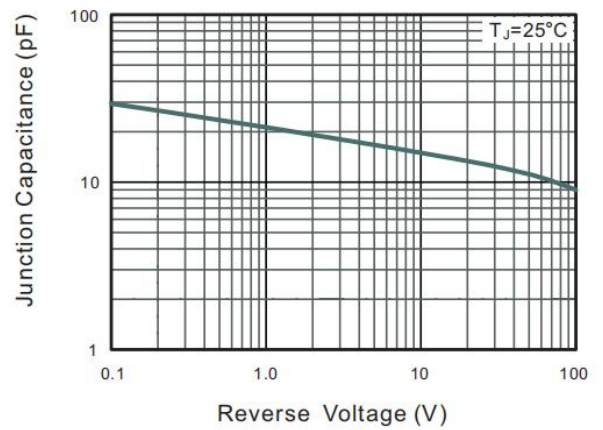
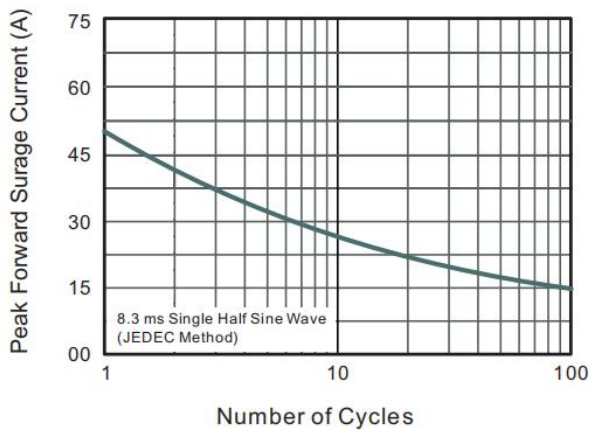
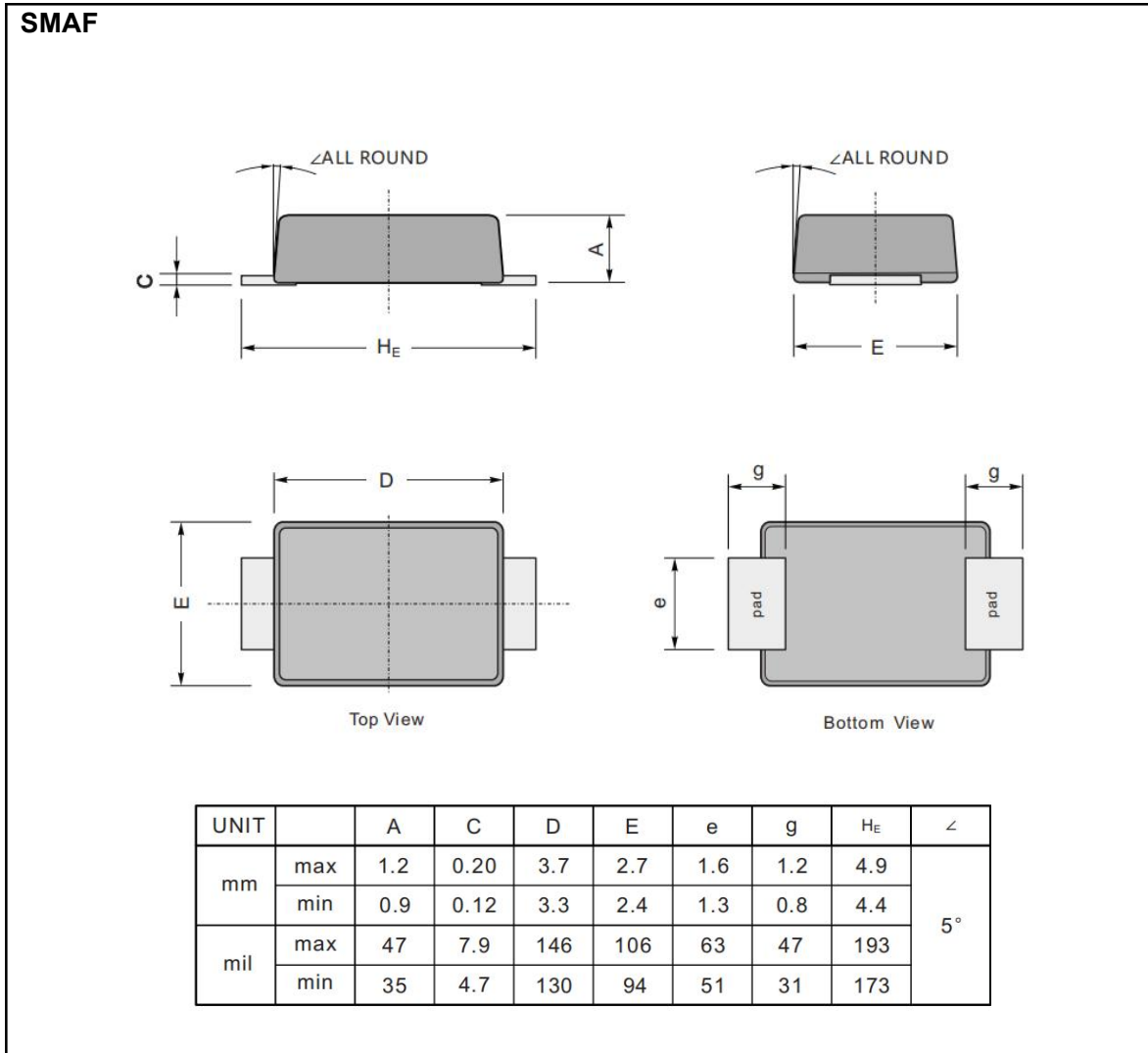


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

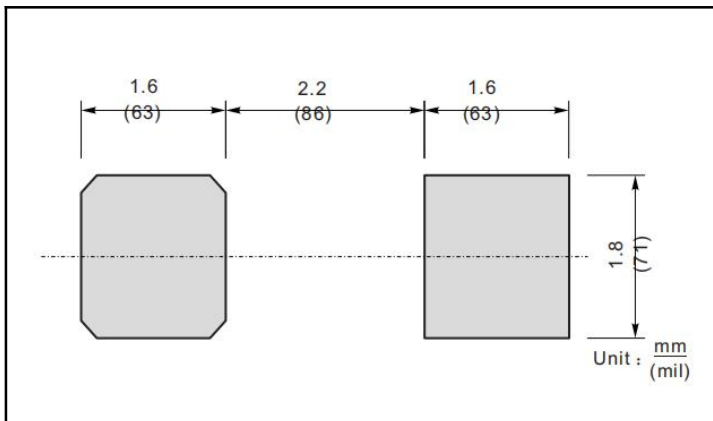


Package Outlines

Plastic surface mounted package; 2 leads



The recommended mounting pad size



Marking

| Type number | Marking code |
|-------------|--------------|
| S2AF | S2AF |
| S2BF | S2BF |
| S2DF | S2DF |
| S2GF | S2GF |
| S2JF | S2JF |
| S2KF | S2KF |
| S2MF | S2MF |

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