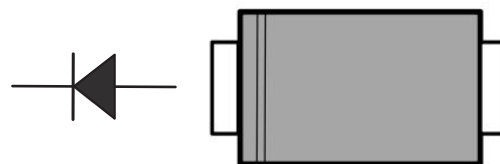


Surface Mount Schottky Barrier Rectifier

| Parameter | Value | Unit |
|-------------|--------|------|
| V_{RRM} | 20~200 | V |
| $I_{F(AV)}$ | 3.0 | A |



SMAF

Features

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability

Applications

- For use in low-voltage, high-frequency inverters, free-wheeling applications, DC/DC converters, and polarity protection circuits.

Absolute Maximum Ratings and Characteristics (at $T_J = 25^\circ\text{C}$ unless otherwise specified)

| Parameter | Symbol | SS32F | SS34F | SS36F | SS38F | SS310F | SS312F | SS315F | SS320F | Units | |
|---|------------------------------------|------------|-------|-------|------------|--------|--------|--------|--------|------------------|---------------------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 20 | 40 | 60 | 80 | 100 | 120 | 150 | 200 | V | |
| Maximum RMS voltage | V_{RMS} | 14 | 28 | 42 | 56 | 70 | 84 | 105 | 140 | V | |
| Maximum DC Blocking Voltage | V_{DC} | 20 | 40 | 60 | 80 | 100 | 120 | 150 | 200 | V | |
| Maximum Average Forward Rectified Current | $I_{F(AV)}$ | 3.0 | | | | | | | | A | |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 80 | | | | | | | | A | |
| Max Instantaneous Forward Voltage at 3A | V_F | 0.55 | | 0.70 | | 0.85 | | 0.95 | | V | |
| Maximum DC Reverse Current at Rated DC Reverse Voltage | I_R | 0.5 5 | | | 0.3 3 | | | | | mA | |
| Typical Junction Capacitance (1) | C_j | 250 | | | 180 | | | | | pF | |
| Typical Thermal Resistance (2) | $R_{\theta JA}$ $R_{\theta JC}$ | 70 18 | | | | | | | | | $^\circ\text{C}/\text{W}$ |
| Operating Junction Temperature Range | T_j | -55 ~ +125 | | | -55 ~ +150 | | | | | $^\circ\text{C}$ | |
| Storage Temperature Range | T_{stg} | -55 ~ +150 | | | | | | | | $^\circ\text{C}$ | |

Notes:

- (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

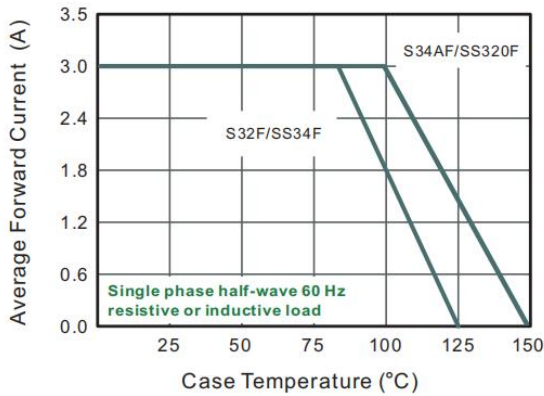


Fig.2 Typical Reverse Characteristics

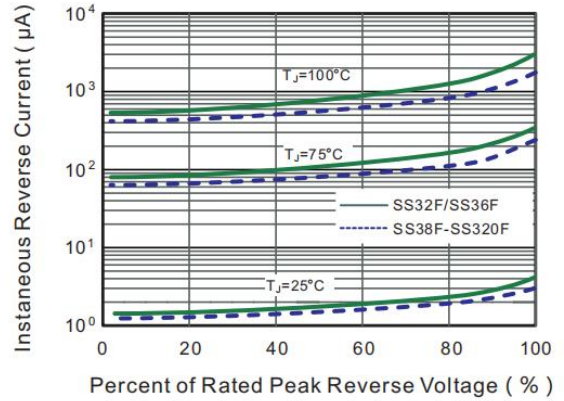


Fig.3 Typical Forward Characteristic

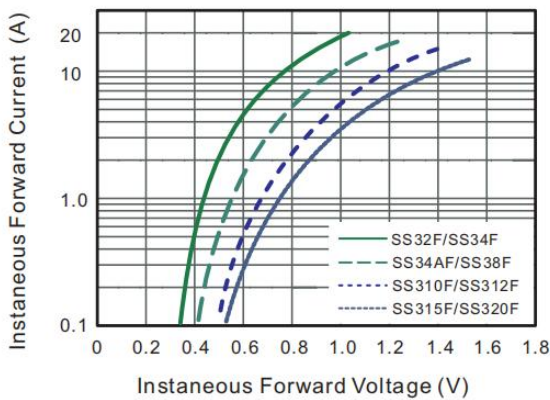


Fig.4 Typical Junction Capacitance

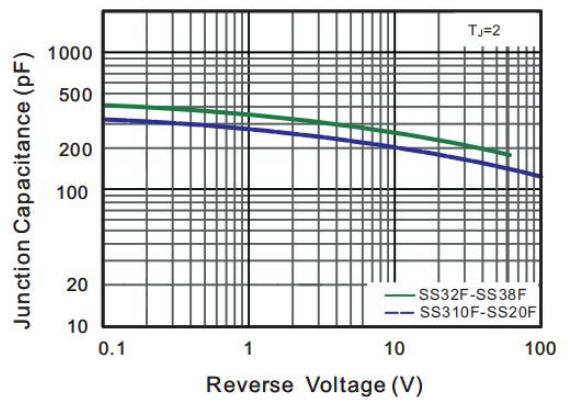


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

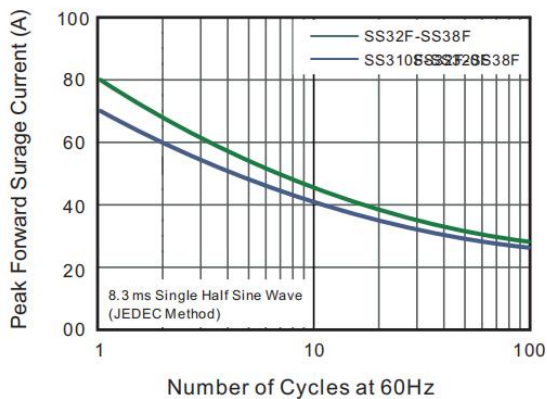
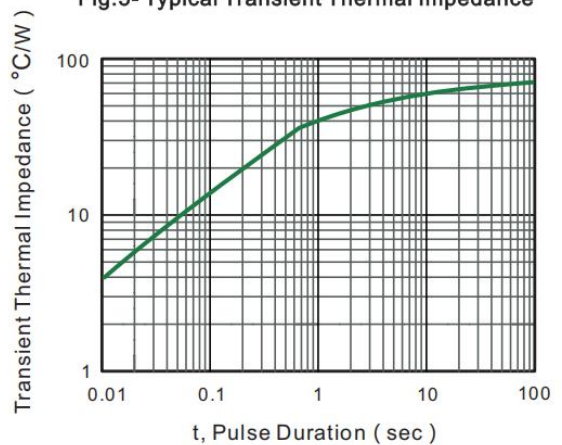
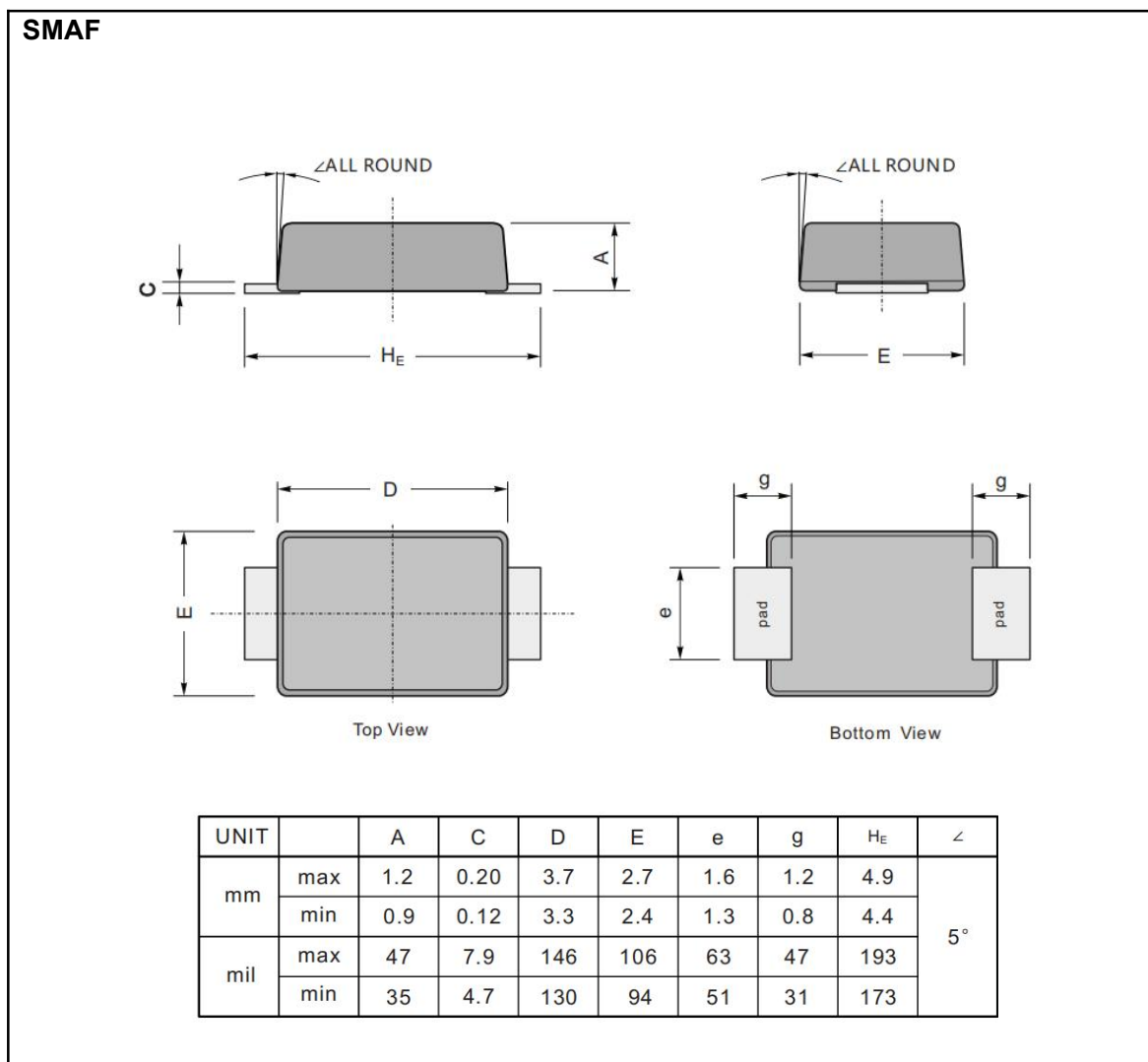


Fig.5- Typical Transient Thermal Impedance

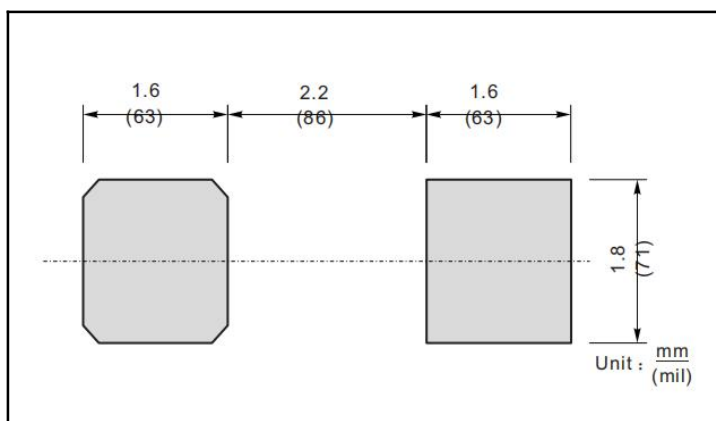


Package outlines

Plastic surface mounted package; 2 leads



The recommended mounting pad size



Marking

| Type number | Marking code |
|-------------|--------------|
| SS32F | SS32F |
| SS34F | SS34F |
| SS36F | SS36F |
| SS38F | SS38F |
| SS310F | SS310F |
| SS312F | SS312F |
| SS315F | SS315F |
| SS320F | SS320F |

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