

Surface Mount Fast Recovery Rectifiers
Reverse Voltage - 50 to 1000 V
Forward Current - 2 A
FEATURES

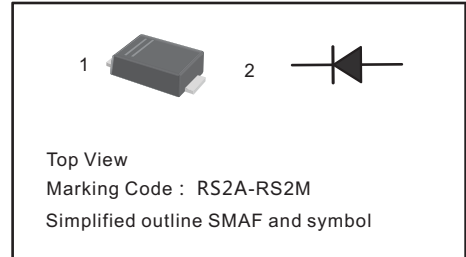
- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Fast reverse recovery time
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- Case: SMAF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 27mg 0.00086oz

PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1 | Cathode |
| 2 | Anode |


Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

| Parameter | Symbols | RS2AF | RS2BF | RS2DF | RS2GF | RS2JF | RS2KF | RS2MF | 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 at $T_a = 65\text{ }^\circ\text{C}$ | $I_{F(AV)}$ | 2 | | | | | | | A |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method) | I_{FSM} | 50 | | | | | | | A |
| Maximum Instantaneous Forward Voltage at 2 A | V_F | 1.3 | | | | | | | V |
| Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 125\text{ }^\circ\text{C}$ | I_R | 5 100 | | | | | | | μA |
| Maximum Reverse Recovery Time ¹⁾ | t_{rr} | 150 | | | 250 | | 500 | | ns |
| Typical Junction Capacitance ²⁾ | C_j | 40 | | | | | | | pF |
| Operating and Storage Temperature Range | T_j, T_{stg} | -55 ~ +150 | | | | | | | $^\circ\text{C}$ |

 1) Measured with $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{rr} = 0.25\text{ A}$

2) Measured at 1MHz and applied reverse voltage of 4V D.C

Fig.1 Forward Current Derating Curve

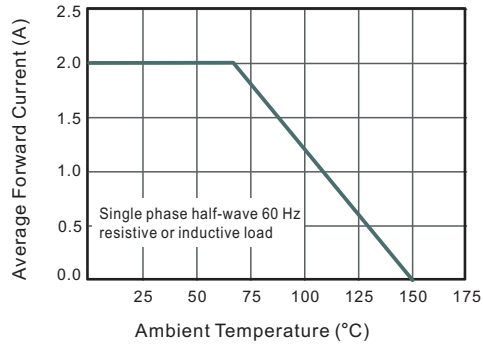


Fig.2 Typical Reverse Characteristics

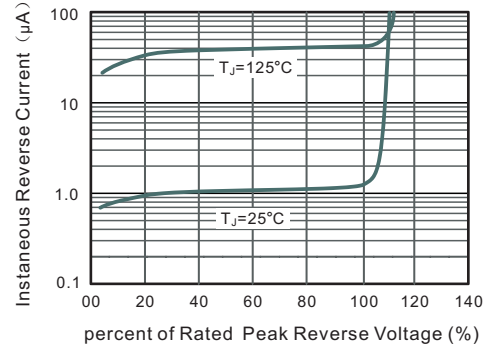


Fig.3 Typical Instantaneous Forward Characteristics

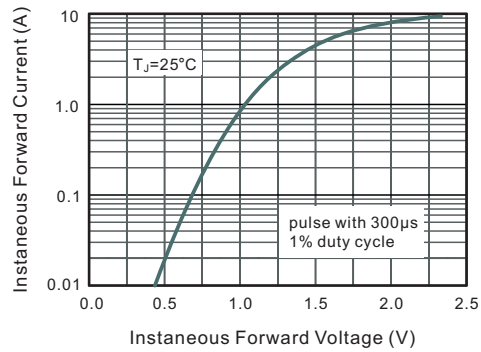


Fig.4 Typical Junction Capacitance

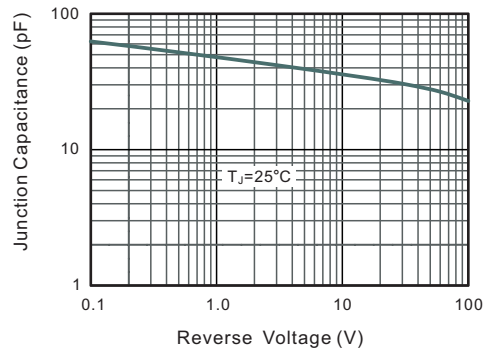
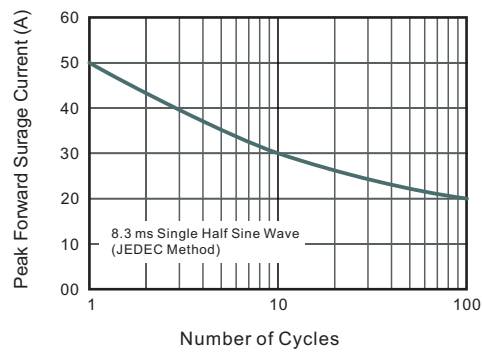
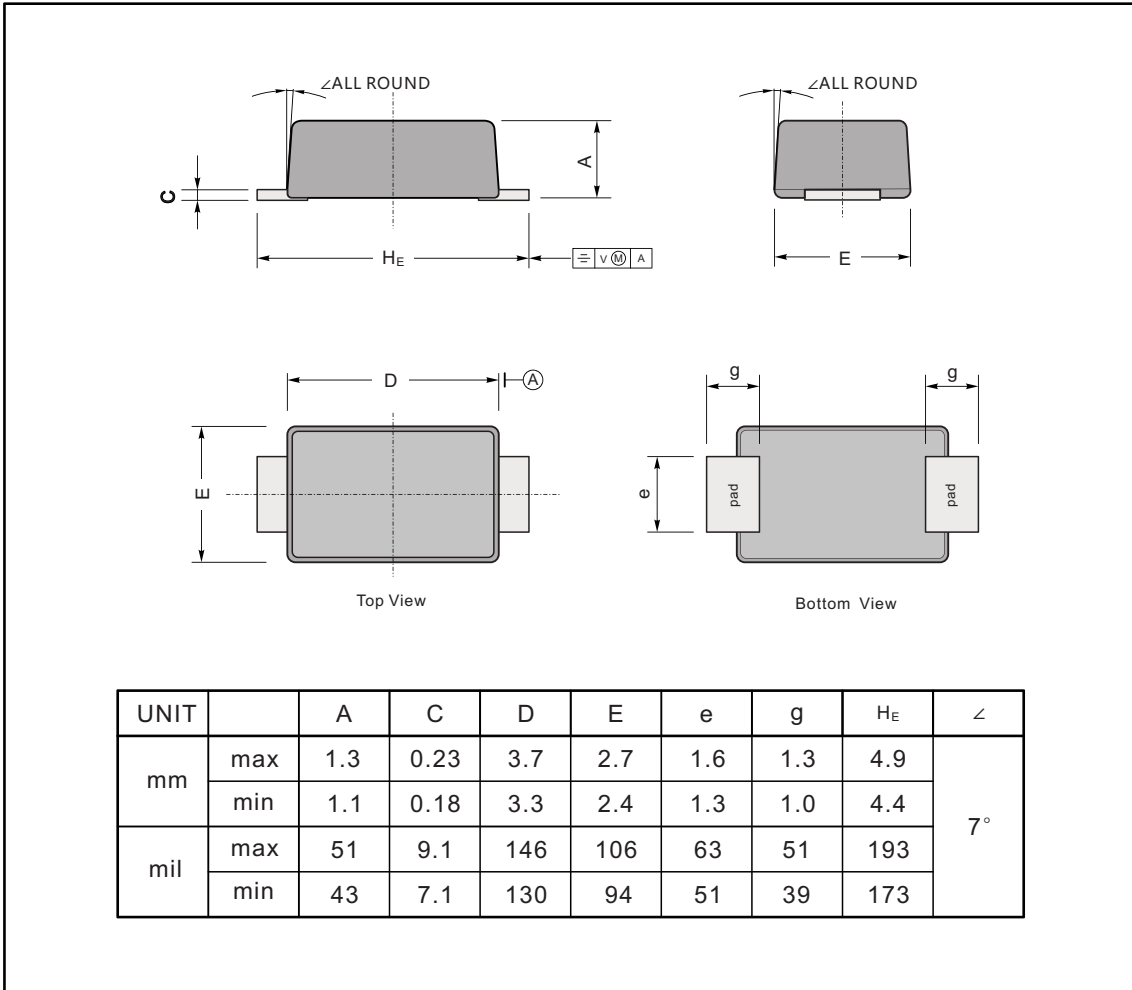
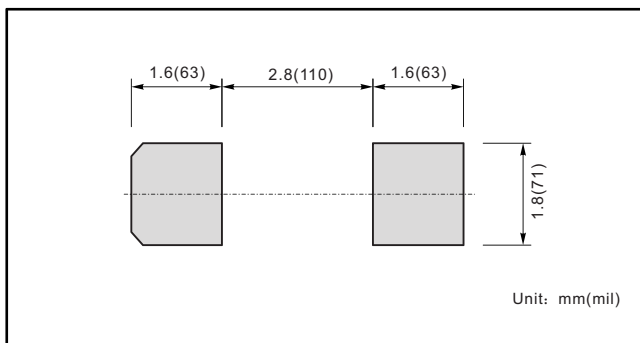


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SMAF

The recommended mounting pad size

Marking

| Type number | Marking code |
|-------------|--------------|
| RS2AF | RS2A |
| RS2BF | RS2B |
| RS2DF | RS2D |
| RS2GF | RS2G |
| RS2JF | RS2J |
| RS2KF | RS2K |
| RS2MF | RS2M |