

Surface Mount Fast Recovery Rectifiers**Reverse Voltage - 50 to 1000 V****Forward Current - 3 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: SMBF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 57mg / 0.002oz

PINNING

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



Top View

Marking Code: R3AB-R3MB

Simplified outline SMBF symbol

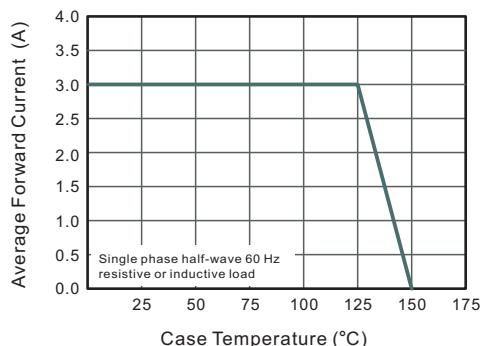
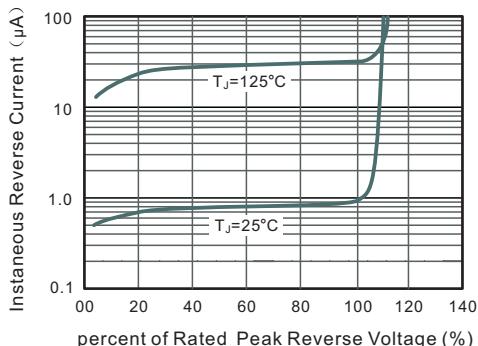
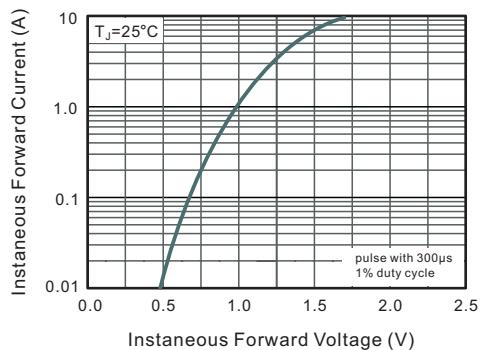
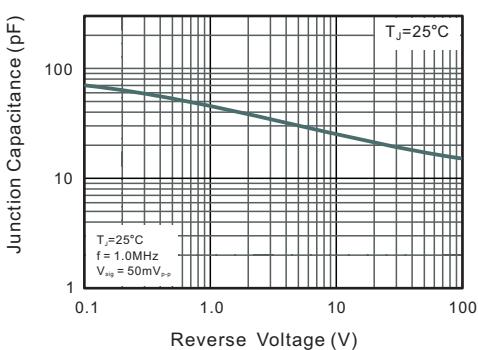
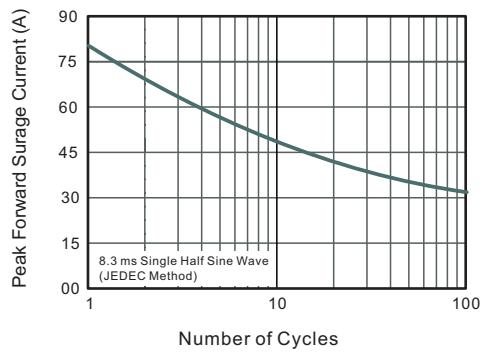
Absolute Maximum Ratings and Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| Parameter | Symbols | RS3ABF | RS3BBF | RS3DBF | RS3GBF | RS3JBF | RS3KBF | RS3MBF | 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 _c = 125 °C | I _{F(AV)} | | | | | | | | A |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load | I _{FSM} | | | | | | | | A |
| Maximum Forward Voltage at 3 A | V _F | | | | | | | | V |
| Maximum DC Reverse Current T _a = 25 °C at Rated DC Blocking Voltage T _a = 125 °C | I _R | | | | 5 | | | | µA |
| Typical Junction Capacitance at V _R =4V, f=1MHz | C _j | | | | 100 | | | | pF |
| Maximum Reverse Recovery Time ⁽¹⁾ | t _{rr} | | | 150 | | 250 | 500 | | ns |
| Typical Thermal Resistance ⁽²⁾ | R _{θJA} R _{θJC} | | | | 45 | | | | °C/W |
| Operating and Storage Temperature Range | T _j , T _{stg} | | | | -55 ~ +150 | | | | °C |

(1) Measured with I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A.

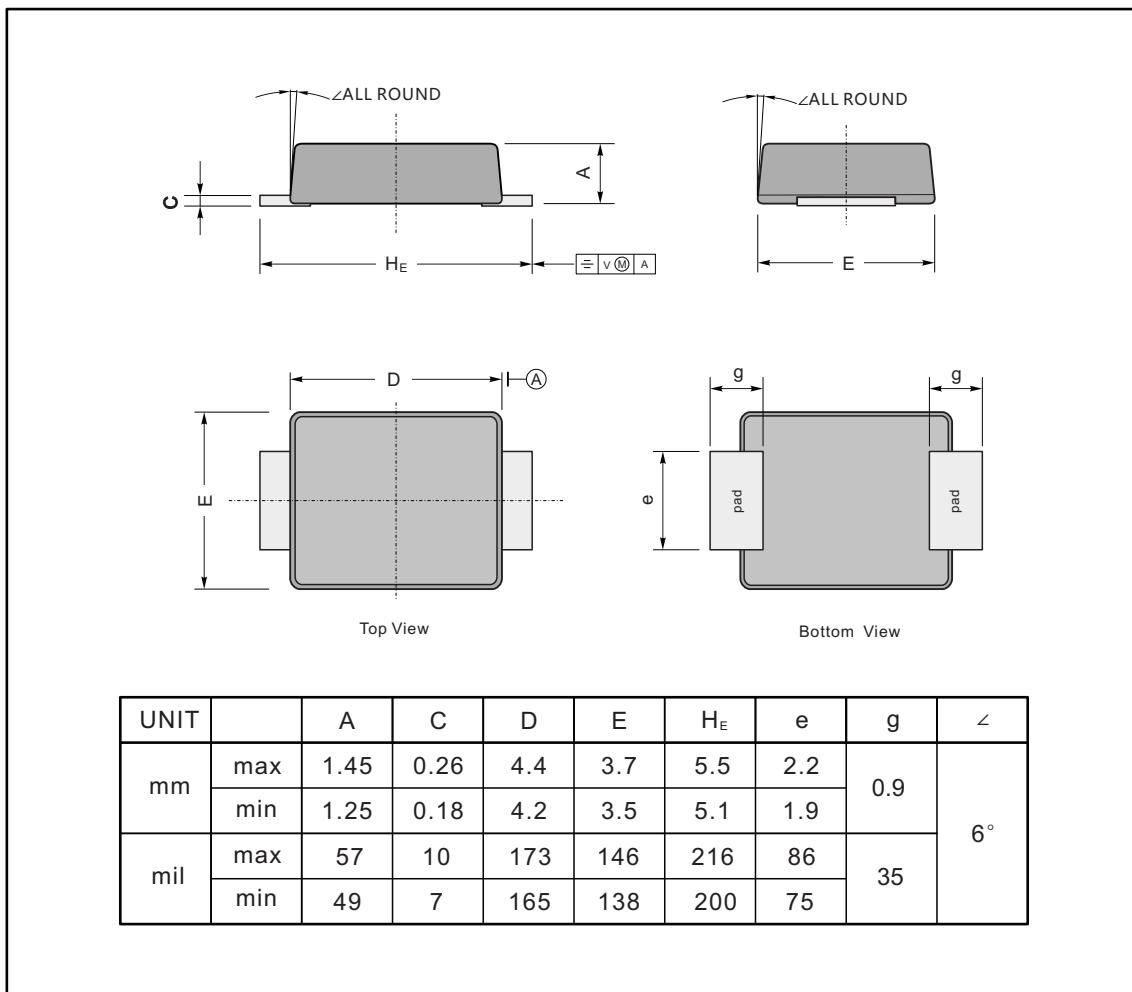
(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Fig.1 Maximum Average Forward Current Rating**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

SMBF



The recommended mounting pad size

