

# RS3ABF THRU RS3MBF

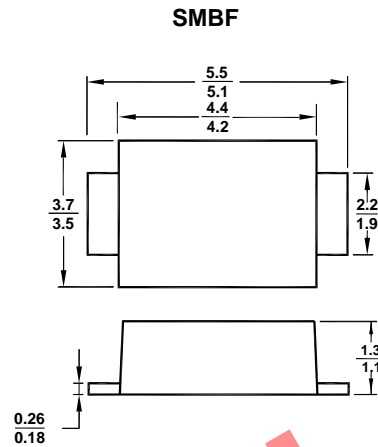
**Surface Mount Fast Recovery Rectifier**  
**Reverse Voltage - 50 to 1000 V**  
**Forward Current - 3 A**

## Features

- Glass Passivated Chip Junction
- For surface mounted applications
- Low profile package
- Fast reverse recovery time

## Mechanical Data

- **Case:** SMBF
- **Terminals:** Solderable per MIL-STD-750, Method 2026



All Dimensions in mm

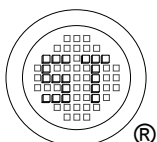
## Absolute Maximum Ratings and Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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

| Parameter  | Symbols         | RS3ABF        | RS3BBF | RS3DBF | RS3GBF | RS3JBF | RS3KBF | RS3MBF | Units              |
|--|-----------------|---------------|--------|--------|--------|--------|--------|--------|--------------------|
|  | Marking         | R3AB          | R3BB   | R3DB   | R3GB   | R3JB   | R3KB   | R3MB   | -                  |
| 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 $T_a = 65^\circ\text{C}$                                      | $I_{F(AV)}$     | 3             |        |        |        |        |        |        | A                  |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)          | $I_{FSM}$       | 100           |        |        |        |        |        |        | A                  |
| Maximum Forward Voltage at 3 A   | $V_F$           | 1.3           |        |        |        |        |        |        | V                  |
| Maximum Reverse Current at Rated DC Blocking Voltage $T_a = 25^\circ\text{C}$<br>$T_a = 125^\circ\text{C}$ | $I_R$           | 5<br>150      |        |        |        |        |        |        | $\mu\text{A}$      |
| Typical Junction Capacitance at $V_R = 4\text{ V}$ , $f = 1\text{ MHz}$                                    | $C_j$           | 60            |        |        |        |        |        |        | pF                 |
| Maximum Reverse Recovery Time at $I_F = 0.5\text{ A}$ , $I_R = 1\text{ A}$ , $I_{rr} = 0.25\text{ A}$      | $t_{rr}$        | 150           |        |        |        |        | 250    |        | ns                 |
| Typical Thermal Resistance <sup>1)</sup>   | $R_{\theta JA}$ | 55            |        |        |        |        |        |        | $^\circ\text{C/W}$ |
| Operating Junction and Storage Temperature Range   | $T_j, T_{stg}$  | - 55 to + 150 |        |        |        |        |        |        | $^\circ\text{C}$   |

<sup>1)</sup> P.C.B. mounted with 0.5 X 0.5" (12.7 X 12.7 mm) copper pad areas.

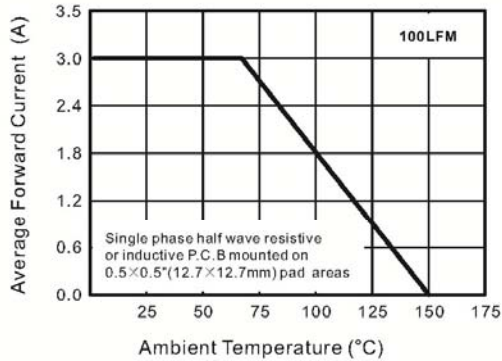


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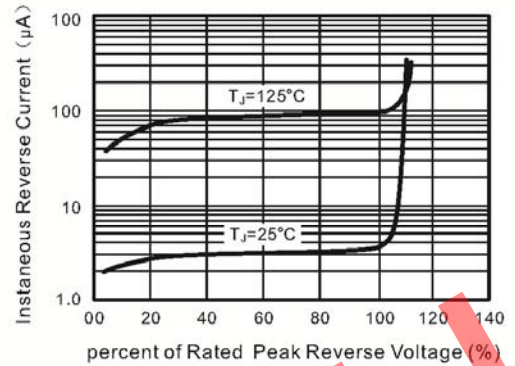


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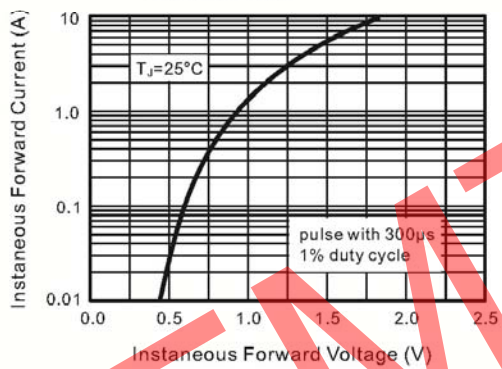
Forward Current Derating Curve



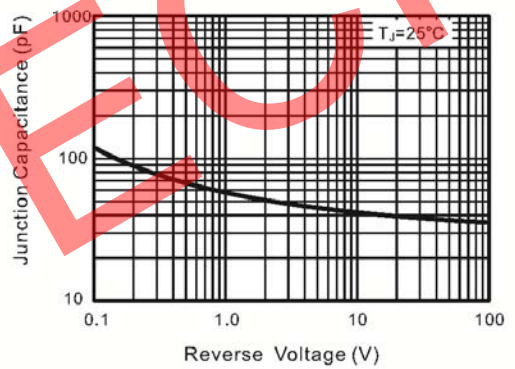
Typical Reverse Characteristics



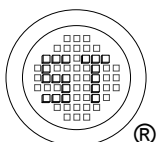
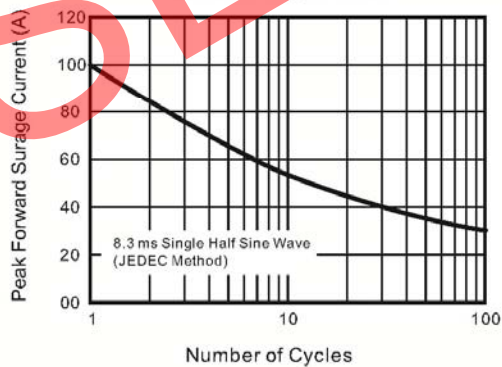
Typical Instantaneous Forward Characteristics



Typical Junction Capacitance



Maximum Non-Repetitive Peak Forward Surge Current



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