

# S5ABF THRU S5MBF

## Surface Mount General Purpose Silicon Rectifiers

Reverse Voltage – 50 to 1000 V

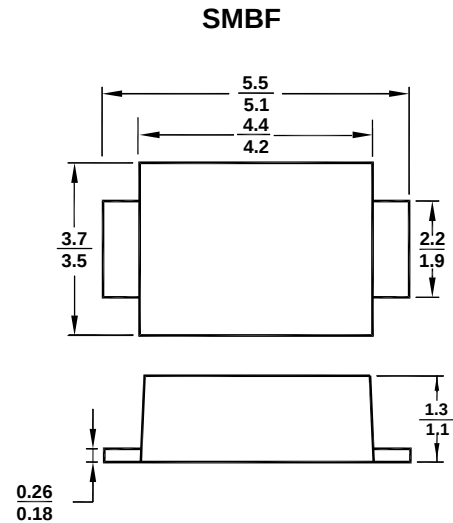
Forward Current – 5 A

### Features

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

### Mechanical Data

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



All Dimensions in mm

### 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         | S5ABF         | S5BBF | S5DBF | S5GBF | S5JBF | S5KBF | S5MBF | Units              |
|---------------------------------------------------------------------------------------------------------------------|-----------------|---------------|-------|-------|-------|-------|-------|-------|--------------------|
|                                                                                                                     | Marking         | S5AB          | S5BB  | S5DB  | S5GB  | S5JB  | S5KB  | S5MB  | -                  |
| 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                                                                           | $I_{F(AV)}$     | 5             |       |       |       |       |       |       | 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 5 A                                                                                      | $V_F$           | 1.1           |       |       |       |       |       |       | V                  |
| Maximum DC Reverse Current<br>$T_a = 25^\circ\text{C}$<br>at Rated DC Blocking Voltage<br>$T_a = 125^\circ\text{C}$ | $I_R$           | 5<br>150      |       |       |       |       |       |       | $\mu\text{A}$      |
| Typical Junction Capacitance <sup>1)</sup>                                                                          | $C_J$           | 50            |       |       |       |       |       |       | pF                 |
| Typical Thermal Resistance <sup>2)</sup>                                                                            | $R_{\theta JA}$ | 35            |       |       |       |       |       |       | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range                                                                             | $T_j, T_{stg}$  | - 55 to + 150 |       |       |       |       |       |       | $^\circ\text{C}$   |

<sup>1)</sup> Measured at 1 MHz and applied reverse voltage of 4 V D.C

<sup>2)</sup> P.C.B. mounted with 1.0 X 1.0" (2.54 X 2.54 cm) copper pad areas.

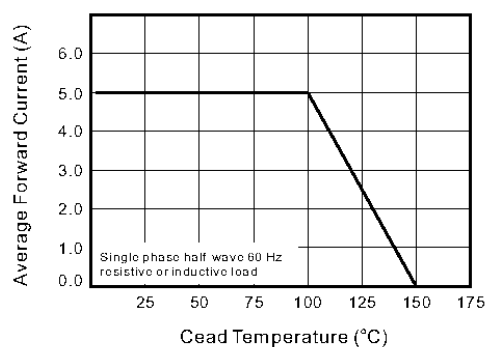
**TOP DYNAMIC**



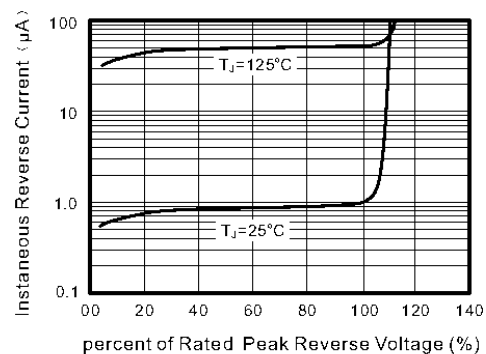
Dated: 11/12/2015 JD Rev: 01

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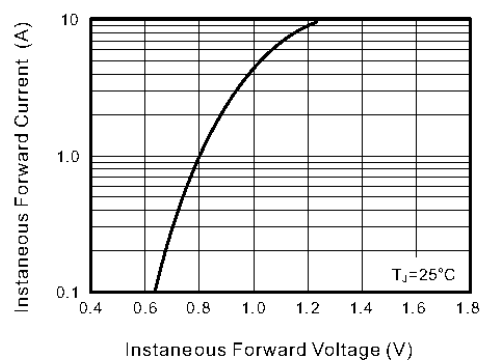
Forward Current Derating Curve



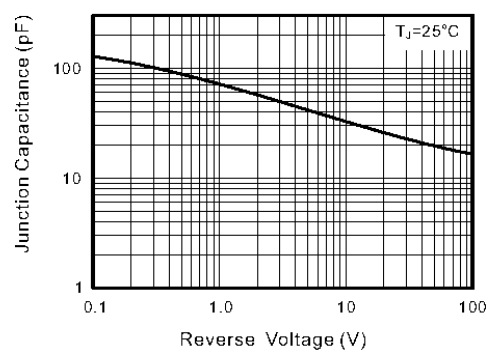
Typical Reverse Characteristics



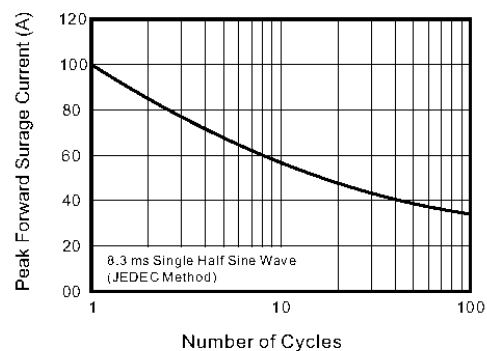
Typical Forward Characteristic



Typical Junction Capacitance



Maximum Non-Repetitive Peak Forward Surge Current



TOP DYNAMIC