

S5ABF THRU S5MBF

Surface Mount General Purpose Silicon Rectifiers

Reverse Voltage – 50 to 1000 V

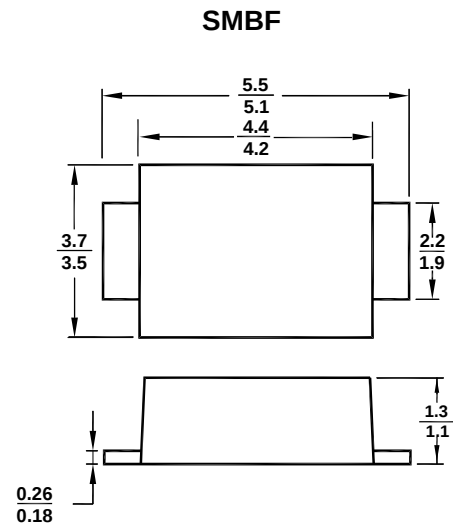
Forward Current – 5 A

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 $T_a = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 125^\circ\text{C}$	I_R	5 150							μA
Typical Junction Capacitance ¹⁾	C_J	50							pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	35							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	- 55 to + 150							$^\circ\text{C}$

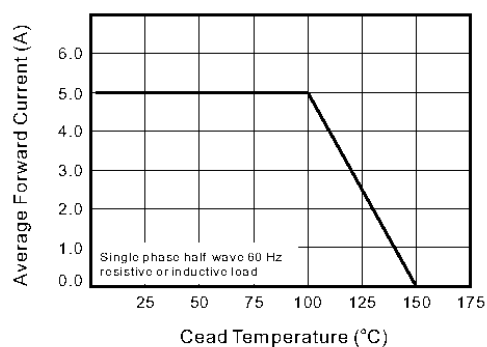
¹⁾ Measured at 1 MHz and applied reverse voltage of 4 V D.C

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

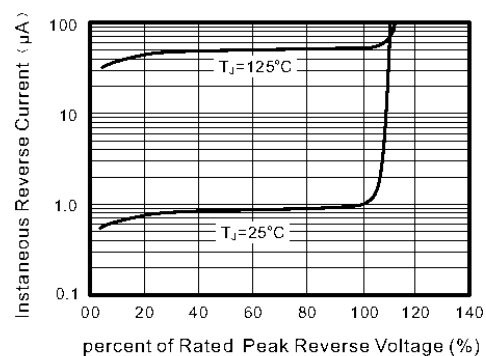
TOP DYNAMIC

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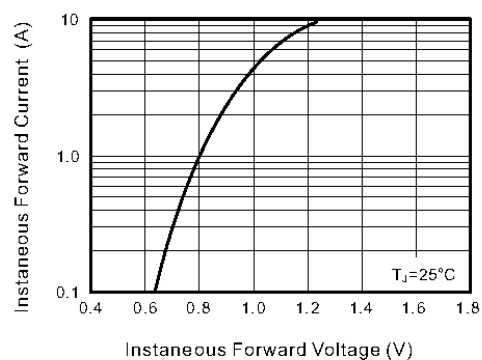
Forward Current Derating Curve



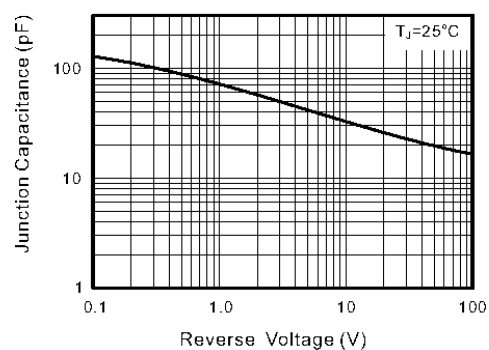
Typical Reverse Characteristics



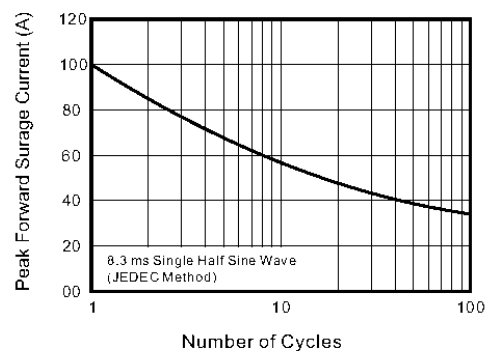
Typical Forward Characteristic



Typical Junction Capacitance



Maximum Non-Repetitive Peak Forward Surge Current



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