

# S1AF THRU S1MF

## SURFACE MOUNT GENERAL PURPOSE SILICON RECTIFIER

Reverse Voltage – 50 to 1000 V

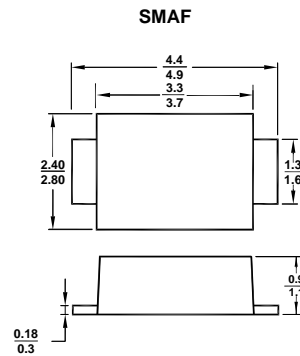
Forward Current – 1 A

### Features

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

### Mechanical Data

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



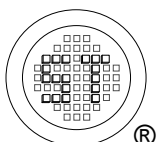
All Dimensions in mm

### 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	S1AF	S1BF	S1DF	S1GF	S1JF	S1KF	S1MF	Units
Marking		S1A	S1B	S1D	S1G	S1J	S1K	S1M	-
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 $T_a = 65^\circ\text{C}$	$I_{F(AV)}$	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	30							A
Maximum Forward Voltage at 1 A	$V_F$	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	5 50							$\mu\text{A}$
Typical Junction Capacitance at $V_R = 4\text{ V}$ , $f = 1\text{ MHz}$	$C_J$	4							pF
Typical Thermal Resistance <sup>1)</sup>	$R_{\theta JA}$	180							$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_j, T_{stg}$	- 55 to + 150							$^\circ\text{C}$

<sup>1)</sup> P.C.B. mounted with 0.2 X 0.2" ( 5 X 5 mm) copper pad areas.

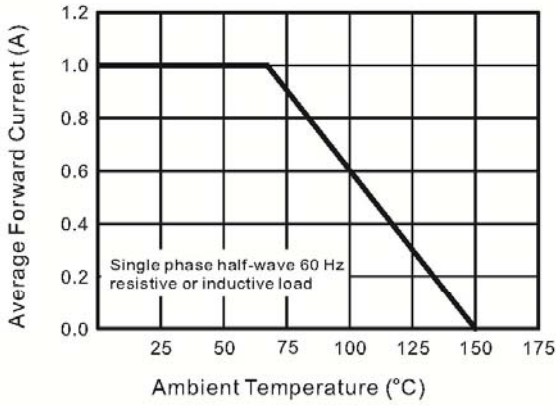


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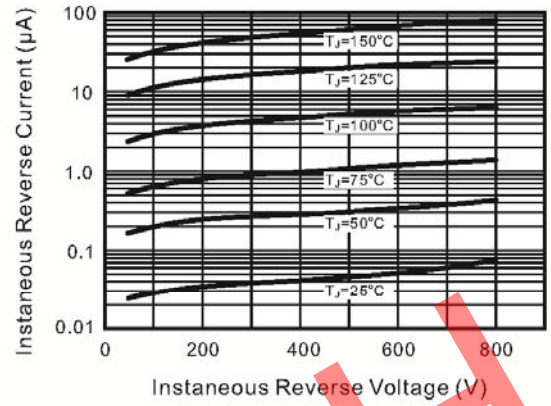


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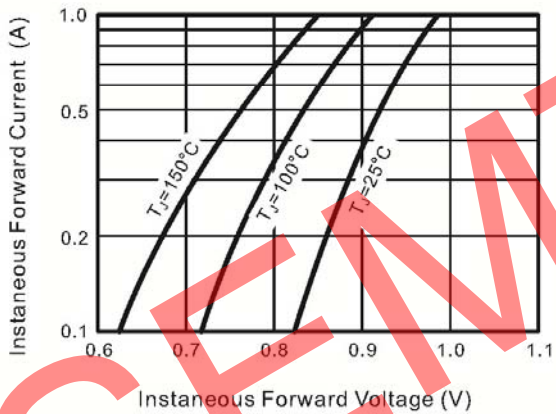
Forward Current Derating Curve



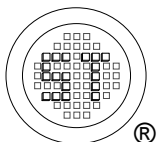
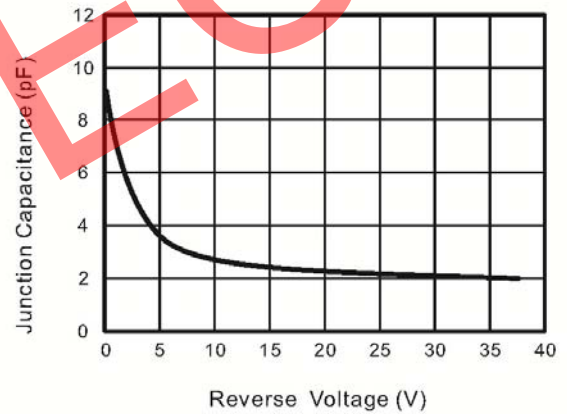
Typical Instantaneous Reverse Characteristics



Typical Forward Characteristic



Typical Junction Capacitance



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