

RS3AF THRU RS3MF

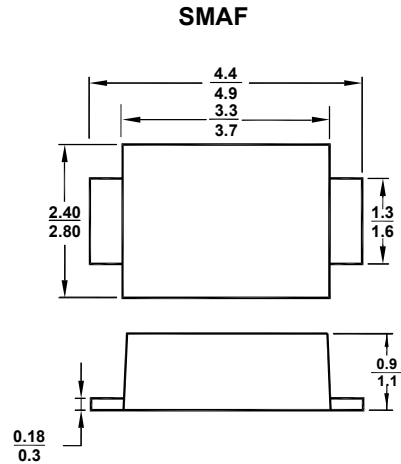
Surface Mount Fast Recovery Rectifier
Reverse Voltage - 50 to 1000 V
Forward Current - 3 A

Features

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

Mechanical Data

- **Case:** SMAF
- **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%.

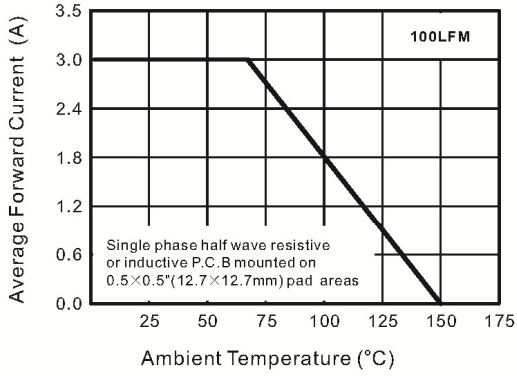
Parameter	Symbols	RS3AF	RS3BF	RS3DF	RS3GF	RS3JF	RS3KF	RS3MF	Units
	Marking	RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	-
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	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 $T_a = 25^\circ\text{C}$ $T_a = 125^\circ\text{C}$	I_R	5 150							μA
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 Junction Capacitance at $V_R = 4\text{ V}$, $f = 1\text{ MHz}$	C_j	60							pF
Typical Thermal Resistance ¹⁾	$R_{\theta JA}$	60							$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	T_j , T_{stg}	- 55 to + 150							$^\circ\text{C}$

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

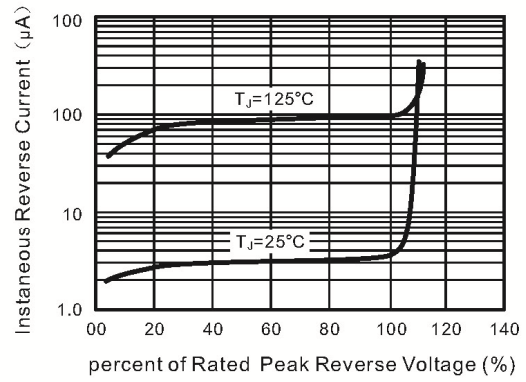
TOP DYNAMIC

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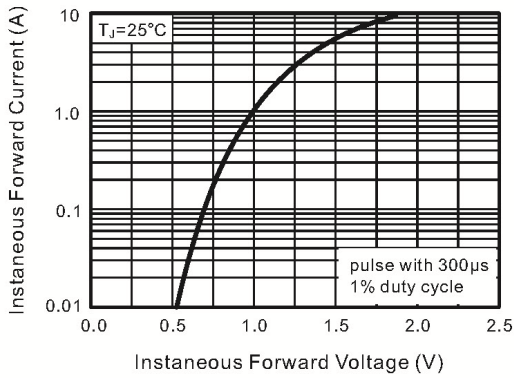
Forward Current Derating Curve



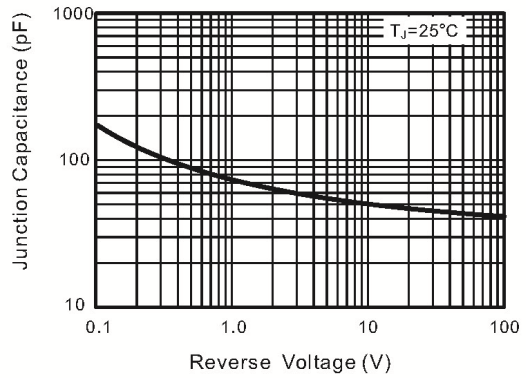
Typical Reverse Characteristics



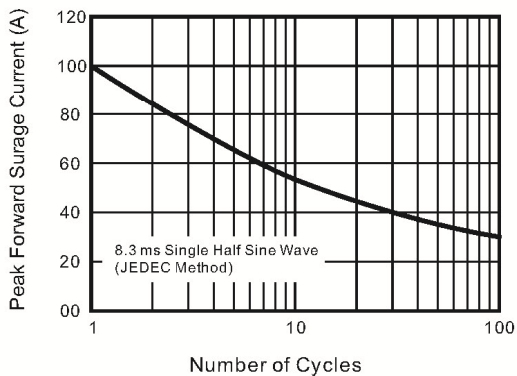
Typical Instantaneous Forward Characteristics



Typical Junction Capacitance



Maximum Non-Repetitive Peak Forward Surge Current



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