

RS1AF THRU RS1MF-HAF

Surface Mount Fast Recovery Rectifier

Reverse Voltage - 50 to 1000 V

Forward Current - 1 A

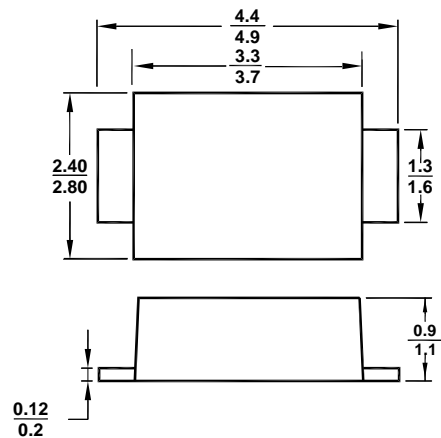
SMAF

Features

- Glass Passivated Chip Junction
- For surface mounted applications
- Low profile package
- Fast reverse recovery time
- Halogen and Antimony Free(HAF),RoHS compliant

Mechanical Data

- **Case:** SMAF
- **Terminals:** Solder plated, 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	RS1AF	RS1BF	RS1DF	RS1GF	RS1JF	RS1KF	RS1MF	Units
	Marking	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	-
Maximum Recurrent 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	1.3							V
Maximum Reverse Current at Rated DC Blocking Voltage	I_R	$T_a = 25^\circ\text{C}$							μA
		$T_a = 125^\circ\text{C}$							
Typical Junction Capacitance at $V_R = 4\text{ V}$, $f = 1\text{ MHz}$	C_j	15							pF
Typical Thermal Resistance ¹⁾	$R_{\theta JA}$	115							$^\circ\text{C/W}$
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	500		ns
Operating Junction and Storage Temperature Range	T_j, T_{stg}	- 55 to + 150							$^\circ\text{C}$

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

TOP DYNAMIC



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 ISO 9001 : 2008 Certificate No. 50114012
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Fig.1 Forward Current Derating Curve

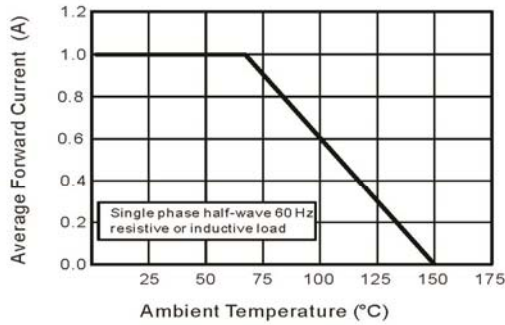


Fig.2 Typical Reverse Characteristics

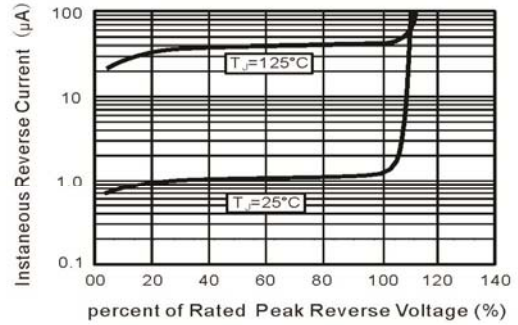


Fig.3 Typical Instantaneous Forward Characteristics

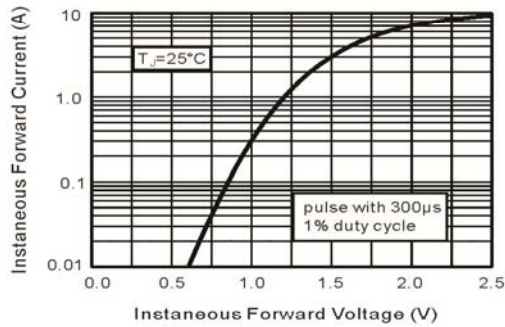


Fig.4 Typical Junction Capacitance

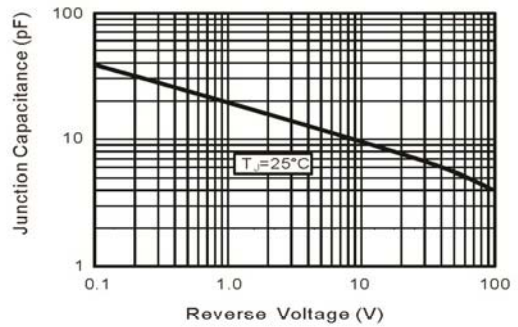
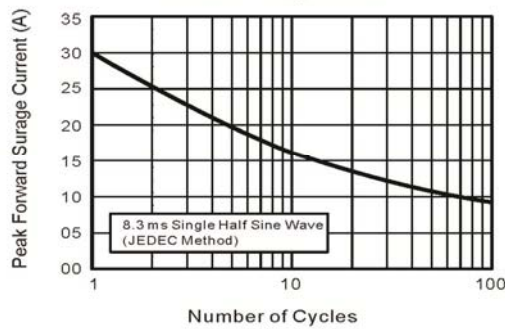


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



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