

RS3AF-AT THRU RS3MF-AT

SURFACE MOUNT FAST RECOVERY RECTIFIERS

Forward Current-3A

Reverse Voltage-50V to 1000V

FEATURES

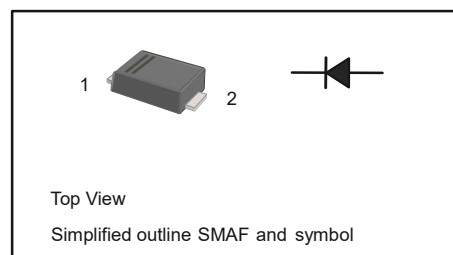
- ◆ For surface mount applications
- ◆ Glass passivated chip junction
- ◆ Low profile package
- ◆ Fast reverse recovery time
- ◆ Lead free in comply with EU RoHS2011/65/EU directives

MECHANICAL DATA

- ◆ Case: SMAF molded plastic body
- ◆ Terminals: Solderable per MIL-STD-750 , Method 2026
- ◆ Weight: Approximated 0.027 grams

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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 derating by 20 %.

PARAMETER	SYMBOL	RS3AF -AT	RS3BF -AT	RS3DF -AT	RS3GF -AT	RS3JF -AT	RS3KF -AT	RS3MF -AT	UNIT
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 $T_C=125^\circ\text{C}$	$I_{F(AV)}$	3							A
Peak Forward Surge Current (Note1)	I_{FSM}	100							A
Maximum Forward Voltage at 3.0 A	V_F	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage at $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	I_R	5 100							μA
Typical Junction Capacitance at $V_R=4\text{V}$, $f=1\text{MHz}$	C_J	32							pF
Maximum Reverse Recovery Time (Note2)	T_{rr}	150				250	500		nS
Typical Thermal Resistance (Note3)	$R_{\theta JA}$ $R_{\theta JC}$	50 16							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$

Notes: 1. Measured at 8.3 ms single half sine wave superimposed on rated load (JEDEC Method).

2. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $J_{rr}=0.25\text{A}$.

3. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Dated: 05/2016

Rev:1.0

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RATINGS AND CHARACTERISTIC CURVES

Fig.1 Maximum Average Forward Current Rating

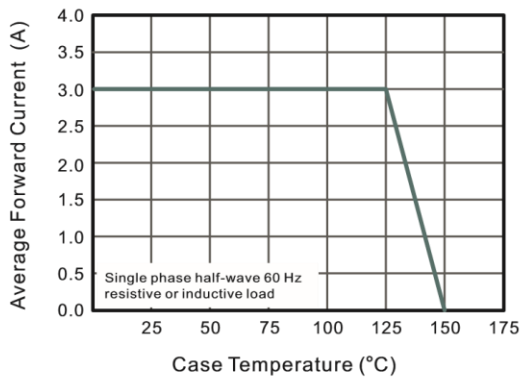


Fig.2 Typical Reverse Characteristics

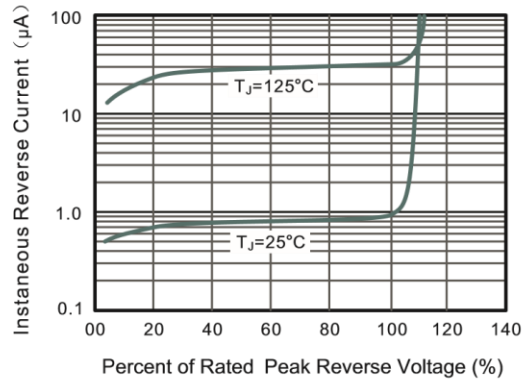


Fig.3 Typical Instantaneous Forward Characteristics

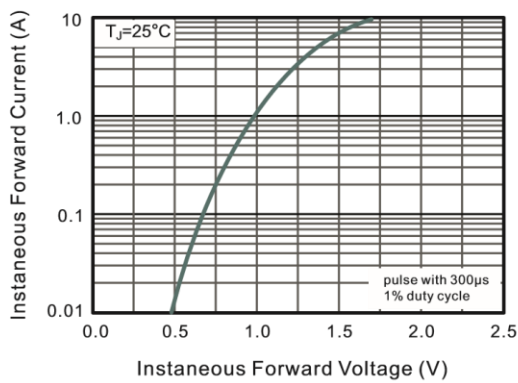


Fig.4 Typical Junction Capacitance

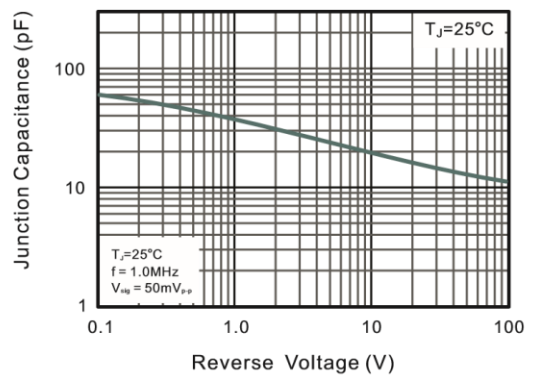
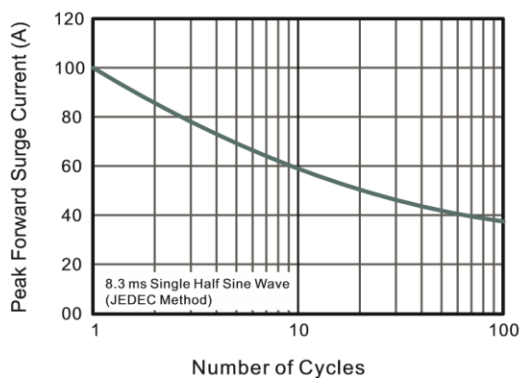


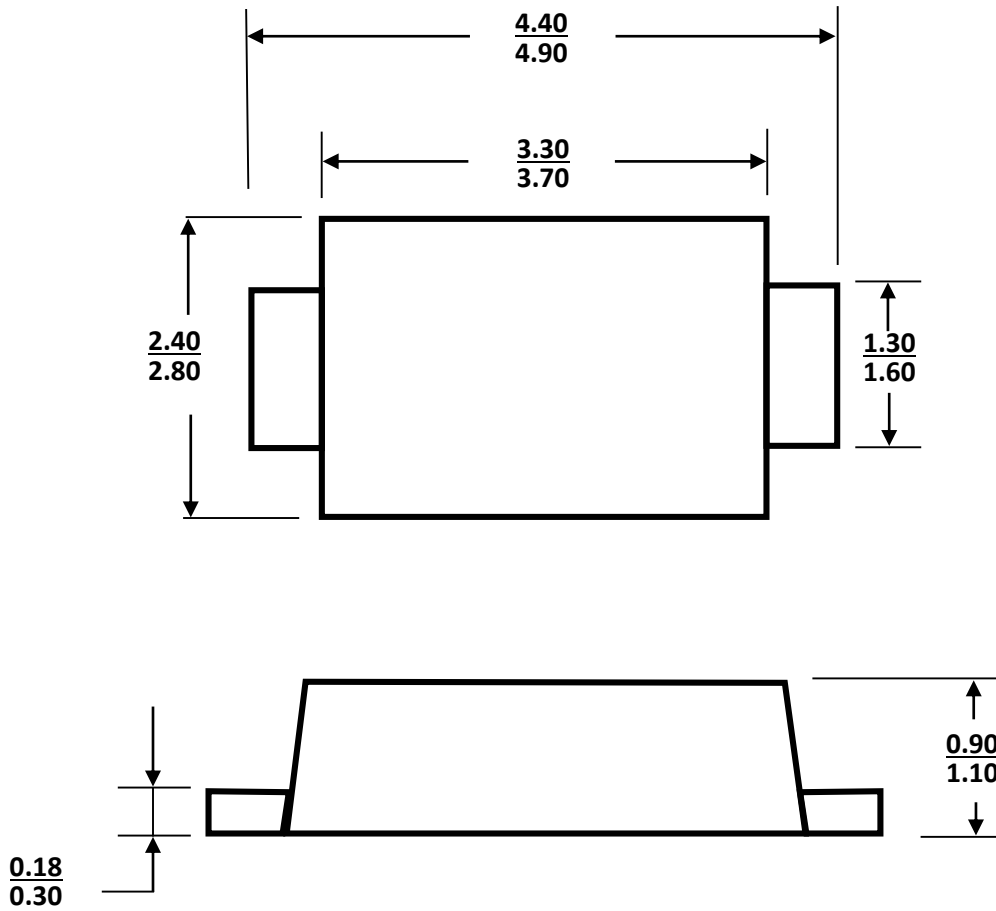
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



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PACKAGE OUTLINE

SMAF



Dimensions in millimeters

ORDERING INFORMATION

Device	Package	Shipping
RS3AF-AT thru RS3MF-AT	SMAF	3,000/Tape & Reel (7 inches)
		10,000/ Tape & Reel (13 inches)

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