



RS1AF~RS1MF

SURFACE MOUNT FAST RECOVERY RECTIFIER

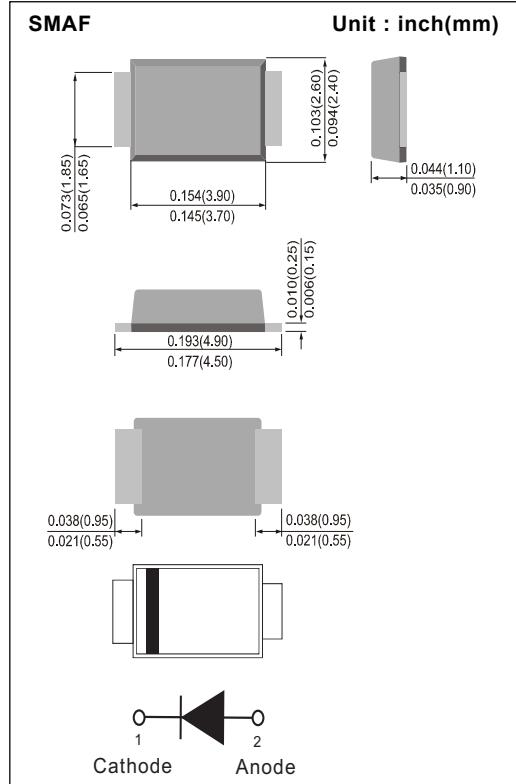
VOLTAGE 50-1000 Volt **CURRENT** 1 Ampere

FEATURES

- For surface mounted applications in order to optimize board space
- Low profile package
- Easy pick and place
- Fast Recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass Passivated Junction
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: SMAF molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Approx. Weight: 0.0011 ounces, 0.0328 grams
- Marking: Part number



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	RS1AF	RS1BF	RS1DF	RS1GF	RS1JF	RS1KF	RS1MF	UNITS
Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
DC Blocking Voltage	V _R	50	100	200	400	600	800	1000	V
Average Forward Current	I _{F(AV)}	1							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	30							A
Forward Voltage at 1A	V _F	1.3							V
DC Reverse Current at Rated DC Blocking Voltage T _J =25°C	I _R	1							μA
Typical Junction Capacitance V _R =4V, f=1MHz	C _J	15				7			pF
Typical Thermal Resistance , Junction to Lead (Note 1) Junction to Ambient (Note 2)	R _{θJL} R _{θJA}	31 150				°C / W			
Reverse Recovery Time (I _F =0.5A, I _R =-1A, I _{rr} =-0.25A)	T _{rr}	150			250	500		ns	
Operating Junction Temperature and Storage Temperature Range	T _J , T _{STG}	-55 to +150							°C

NOTES : 1. Mounted on a FR4 PCB, single-sided copper, with 48cm² copper pad area
2. Mounted on a FR4 PCB, single-sided copper, mini pad.



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TYPICAL CHARACTERISTIC CURVES

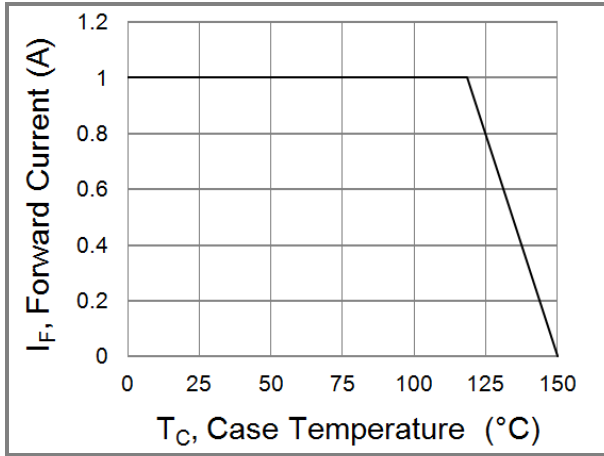


Fig.1 Forward Current Derating Curve

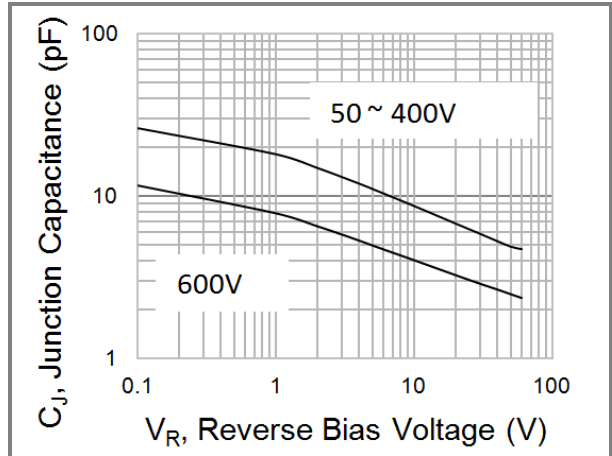


Fig. 2 Typical Junction Capacitance

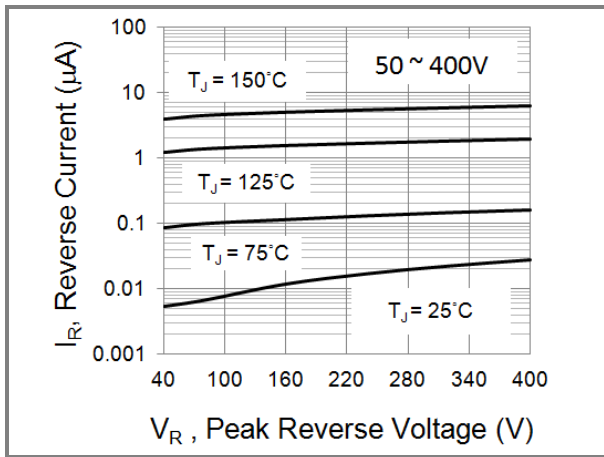


Fig.3 Typical Reverse Characteristics

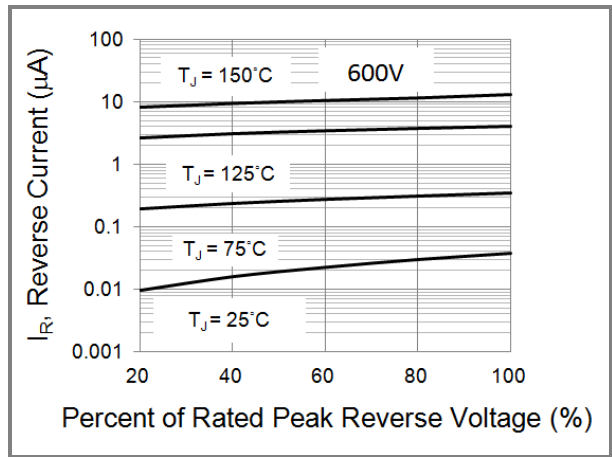


Fig.4 Typical Reverse Characteristics

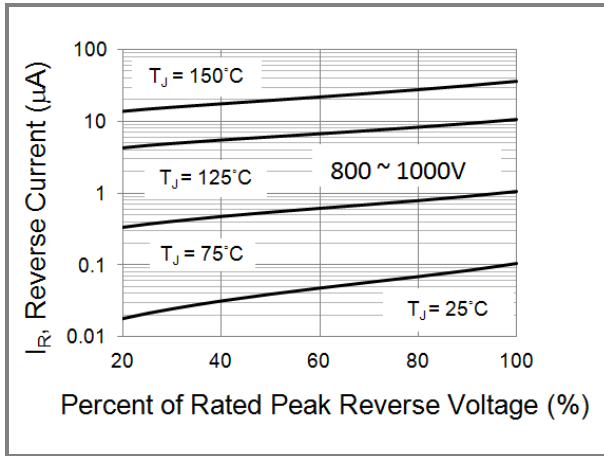


Fig.5 Typical Reverse Characteristics

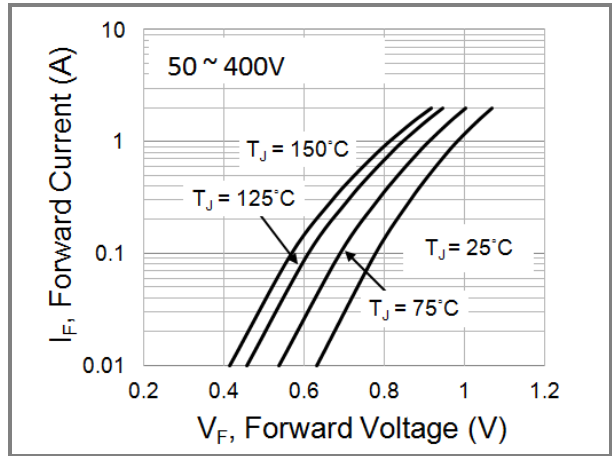
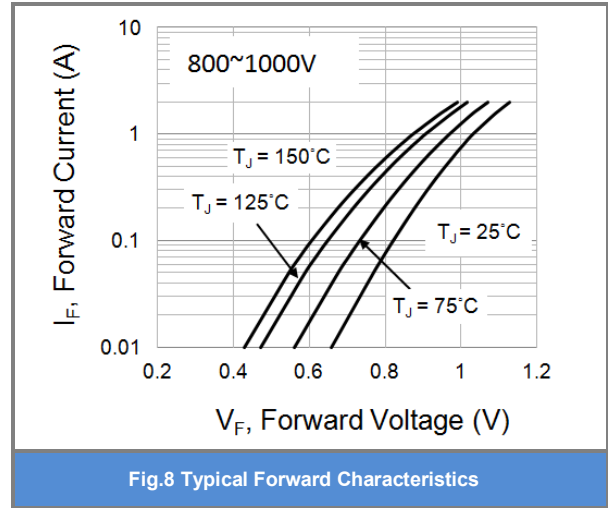
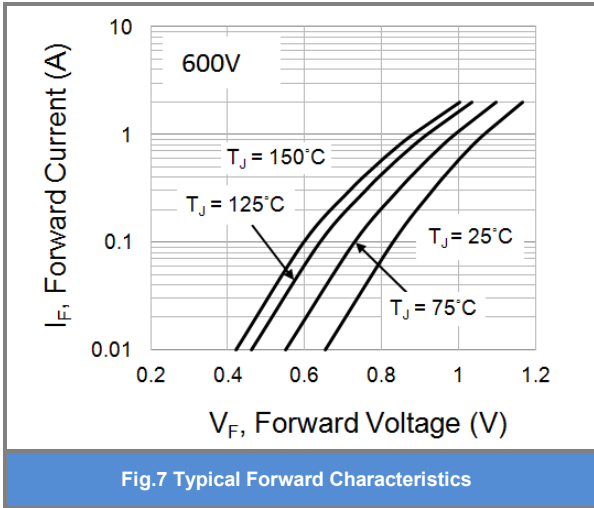


Fig.6 Typical Forward Characteristics



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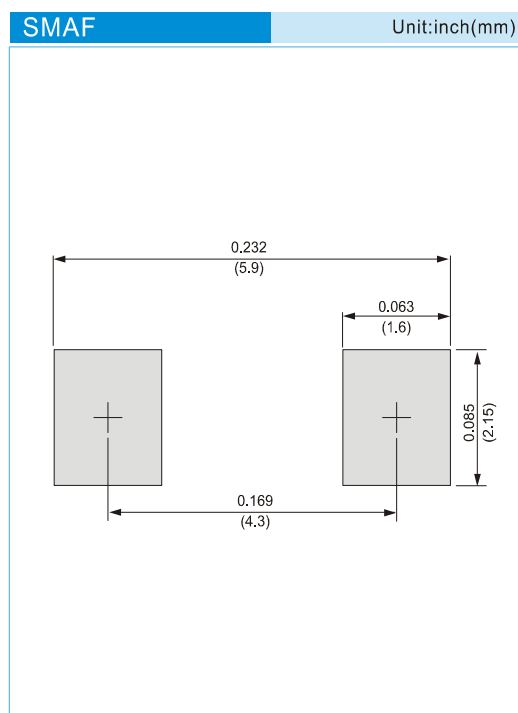


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PART NO PACKING CODE VERSION

Part No Packing Code	Package Type	Packing Type	Marking	Version
RS1AF_R1_00001	SMAF	3K pcs / 7" reel	RS1AF	Halogen free
RS1AF_R2_00001	SMAF	10K pcs / 13" reel	RS1AF	Halogen free

MOUNTING PAD LAYOUT





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