RS1AF THRU RS1MF

Surface Mount Fast Recovery Rectifiers Reverse Voltage - 50 to 1000 V Forward Current - 1 A

FEATURES

- For surface mounted applications
- · Low profile package
- · Glass Passivated Chip Junction
- · Easy to pick and place
- · Fast reverse recovery time
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

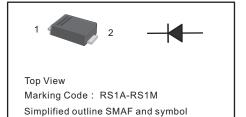
· Case: SMAF

• Terminals: Solderable per MIL-STD-750, Method 2026

Approx. Weight: 27mg / 0.00095oz

PINNING

PIN	DESCRIPTION		
1	Cathode		
2	Anode		



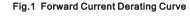
Absolute Maximum Ratings and Characteristics

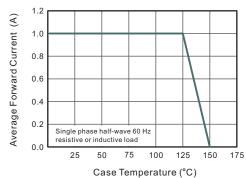
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbols	RS1AF	RS1BF	RS1DF	RS1GF	RS1JF	RS1KF	RS1MF	Units
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 °C	I _{F(AV)}	1							А
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I _{FSM}	30						А	
Maximum Forward Voltage at 1 A	V _F	1.3						V	
Maximum DC Reverse Current $T_a = 25 ^{\circ}\text{C}$ at Rated DC Blocking Voltage $T_a = 125 ^{\circ}\text{C}$	I _R	5 50						μА	
Typical Junction Capacitance at V _R =4V, f=1MHz	C _j	15						pF	
Maximum Reverse Recovery Time (1)	t _{rr}	150			250	500		ns	
Typical Thermal Resistance (2)	$R_{ heta_{JA}} \ R_{ heta_{JL}}$	80 30						°C/W	
Operating and Storage Temperature Range	T_{j},T_{stg}	-55 ~ +150						°C	

⁽¹⁾ Measured with $I_F = 0.5 A$, $I_R = 1 A$, $I_{rr} = 0.25 A$.

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





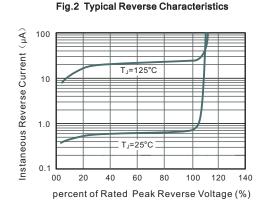


Fig.3 Typical Instaneous Forward Characteristics

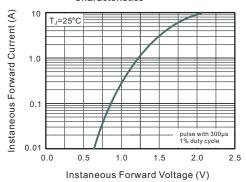


Fig.4 Typical Junction Capacitance

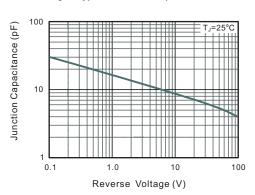
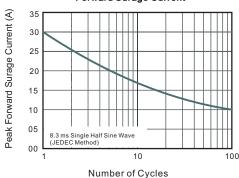


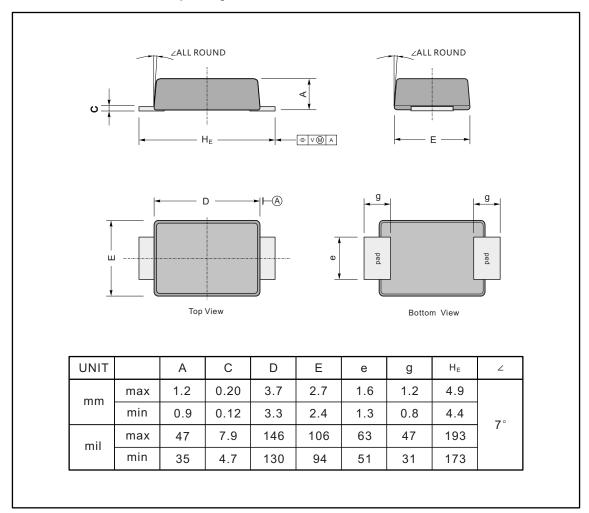
Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



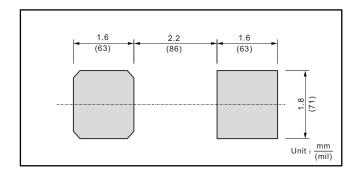
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SMAF



The recommended mounting pad size



Marking

Type number	Marking code				
RS1AF	RS1A				
RS1BF	RS1B				
RS1DF	RS1D				
RS1GF	RS1G				
RS1JF	RS1J				
RS1KF	RS1K				
RS1MF	RS1M				

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