

Surface Mount Fast Recovery Rectifiers

Reverse Voltage - 50 to 1000 V

Forward Current - 2 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



Top View

Marking Code: RS2A-RS2M

Simplified outline SMAF and symbol

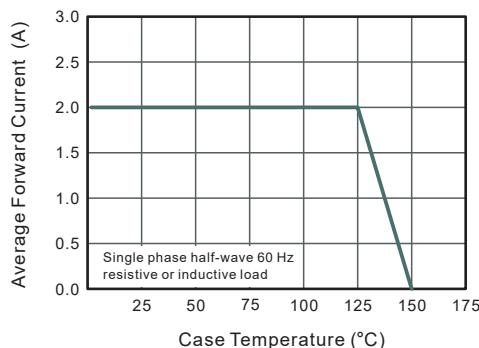
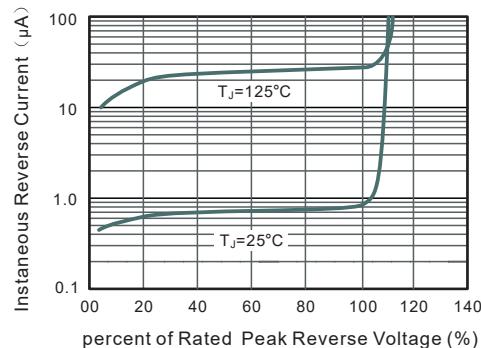
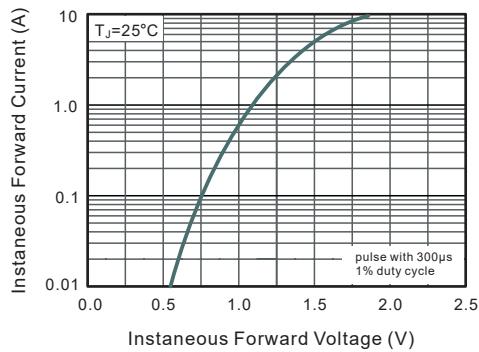
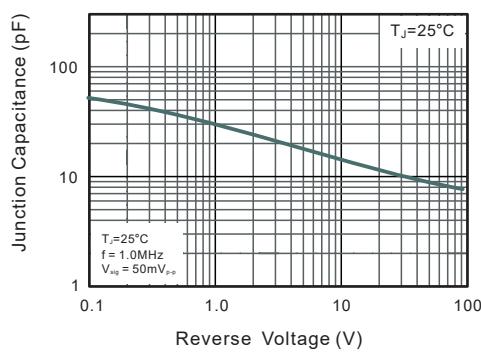
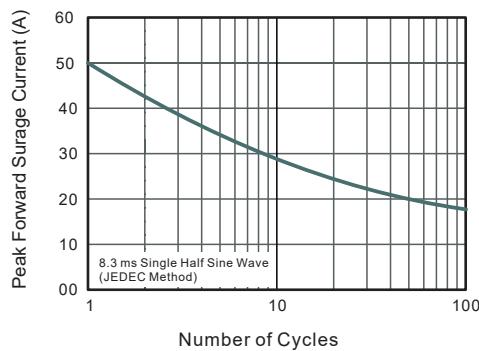
Absolute Maximum Ratings and Characteristics

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	RS2AF	RS2BF	RS2DF	RS2GF	RS2JF	RS2KF	RS2MF	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 $T_c = 125^\circ\text{C}$	$I_{F(AV)}$	2						A				
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	50						A				
Maximum Forward Voltage at 2 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	5 100						μA				
Typical Junction Capacitance at $V_R=4\text{V}$, $f=1\text{MHz}$	C_j	22						pF				
Maximum Reverse Recovery Time ⁽¹⁾	t_{rr}	150		250		500		ns				
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$ $R_{\theta JC}$	65 20						C/W				
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150						C				

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

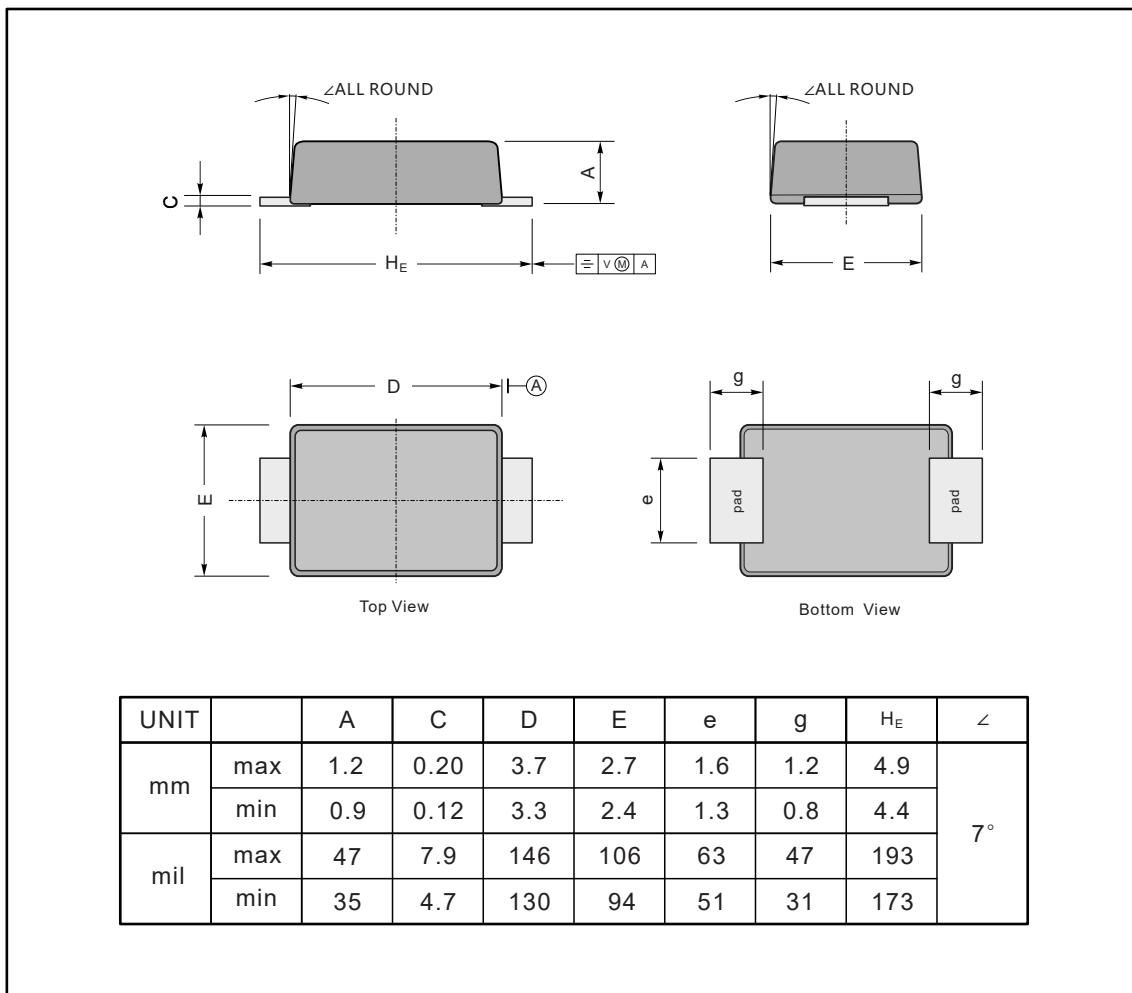
(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

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


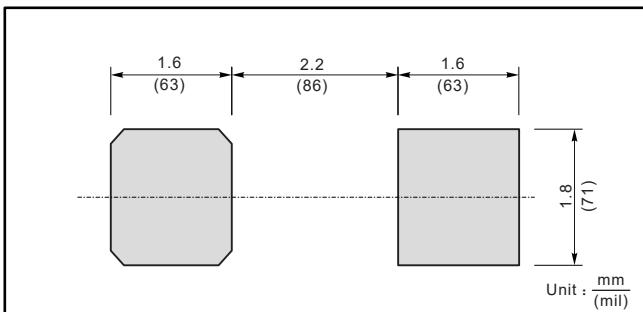
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SMAF



The recommended mounting pad size



Marking

Type number	Marking code
RS2AF	RS2A
RS2BF	RS2B
RS2DF	RS2D
RS2GF	RS2G
RS2JF	RS2J
RS2KF	RS2K
RS2MF	RS2M