

RS2AF THRU RS2MF

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



Simplified outline SMAF and symbol

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	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 $T_c = 125^\circ C$	$I_{F(AV)}$	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 1 A	V_F	1.3							V				
Maximum DC Reverse Current $T_a = 25^\circ C$ at Rated DC Blocking Voltage $T_a = 125^\circ C$	I_R	5 100							μA				
Typical Junction Capacitance at $V_R=4V$ $f=1M$	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							$^\circ C/W$				
Operating and Storage Temperature Range	T_J, T_{stg}	-55 ~ +150							$^\circ C$				

(1) Measured with $IF = 0.5 A$, $IR = 1 A$, $Irr = 0.25 A$

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

Rating And Characteristic Curves

Fig.1 Forward Current Derating Curve

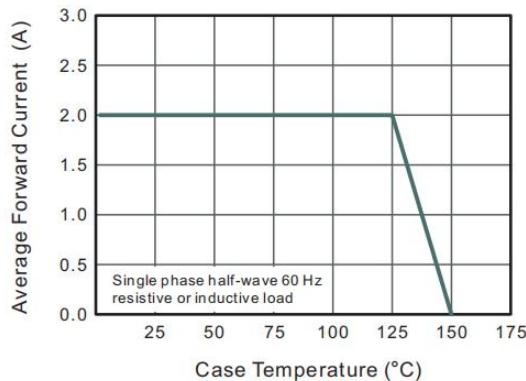


Fig.2 Typical Reverse Characteristics

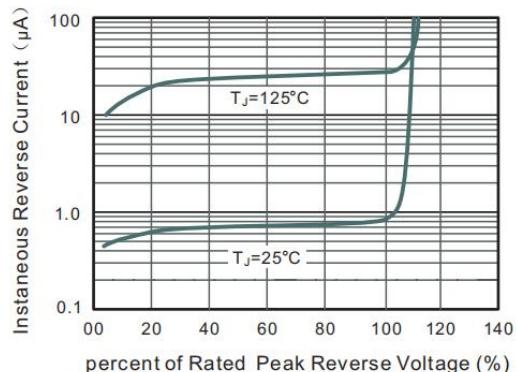


Fig.3 Typical Instantaneous Forward Characteristics

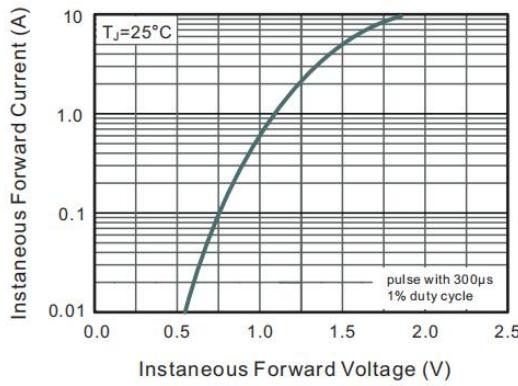


Fig.4 Typical Junction Capacitance

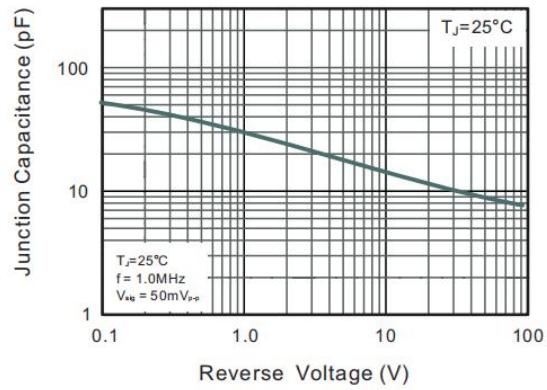
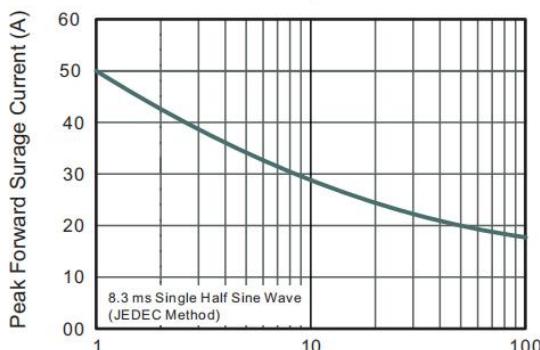


Fig.5 Maximum Non-Repetitive Peak

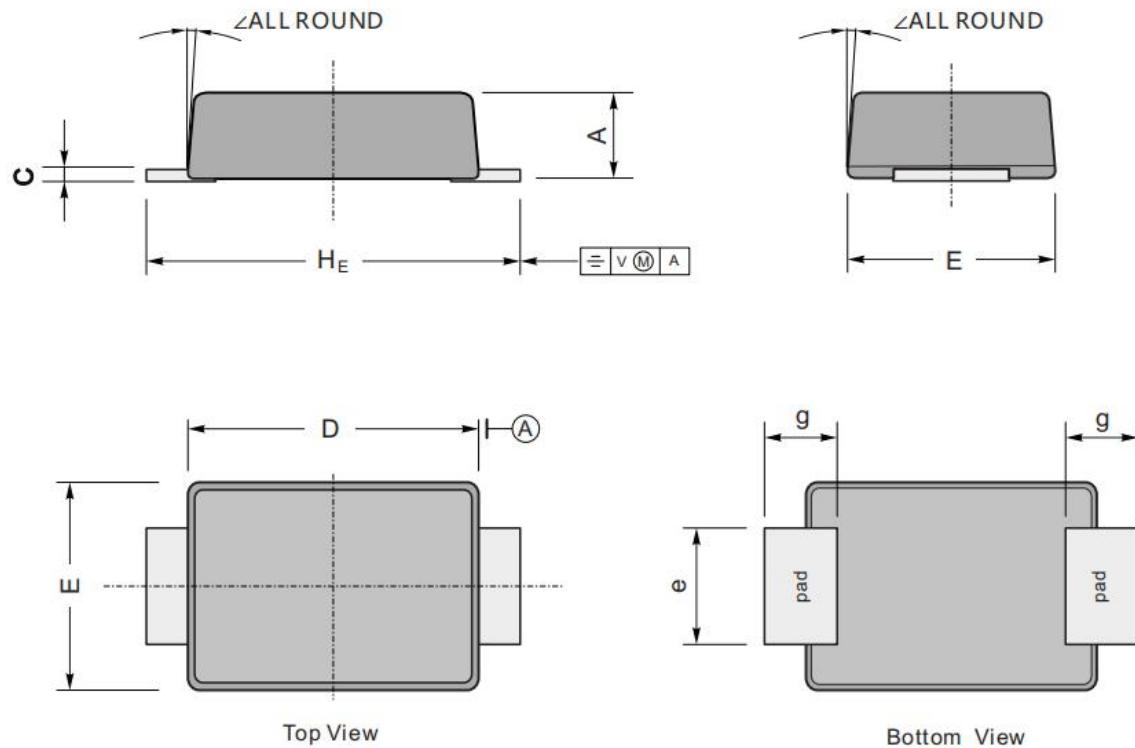
Forward Surge Current



Package Outline

Plastic surface mounted package; 2 leads

SMAF



Top View

Bottom View

UNIT		A	C	D	E	e	g	H_E	\angle
mm	max	1.2	0.20	3.7	2.7	1.6	1.2	4.9	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	
mil	max	47	7.9	146	106	63	47	193	7°
	min	35	4.7	130	94	51	31	173	

The recommended mounting pad size

