



## DESCRIPTION

The S1AF~S1MF are available in SMAF package

## FEATURES

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Available in SMAF package

## ORDERING INFORMATION

Package Type	Part Number
SMAF	S1AF
	S1BF
	S1DF
	S1GF
	S1JF
	S1KF
	S1MF
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

## MECHANICAL DATA

Case: SMAF

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

Approx. Weight: 27mg / 0.00086oz

## PIN DESCRIPTION





## ABSOLUTE MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	S1AF	S1BF	S1DF	S1GF	S1JF	S1KF	S1MF	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 $T_A=65^\circ\text{C}$	$I_{F(AV)}$	1							A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	25							A
Max Instantaneous Forward Voltage at 1A	$V_F$	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	$T_A=25^\circ\text{C}$							$\mu\text{A}$
		$T_A=125^\circ\text{C}$							
Typical Junction Capacitance <sup>NOTE1</sup>	$C_J$	4							pF
Typical Thermal Resistance <sup>NOTE2</sup>	$R_{\theta JA}$	180							$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 ~ 150							$^\circ\text{C}$

NOTE1: Measured at 1MHz and applied reverse voltage of 4 V D.C

NOTE2: Thermal resistance from junction to ambient at 0.375" (9.5 mm) lead length, P.C.B. mounted



## TYPICAL CHARACTERISTICS

Figure. 1 Forward Current Derating Curve

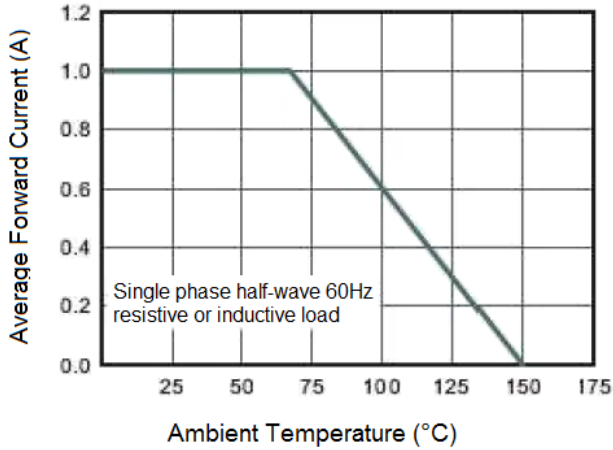


Figure. 2 Typical Instantaneous Reverse Characteristics

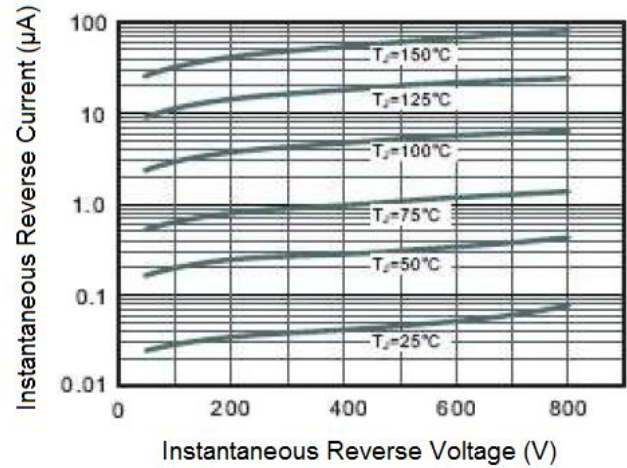


Figure. 3 Typical Forward Characteristic

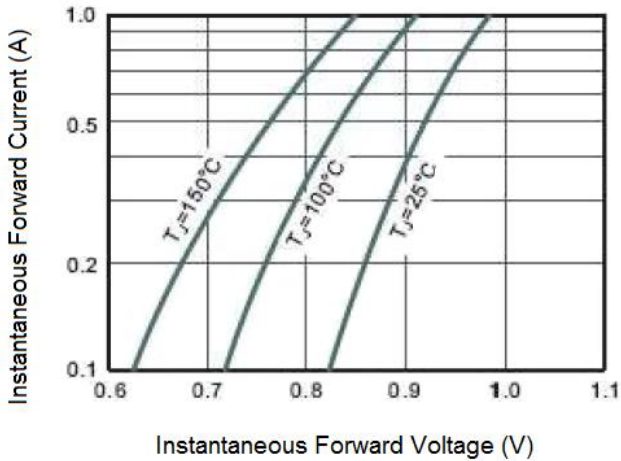
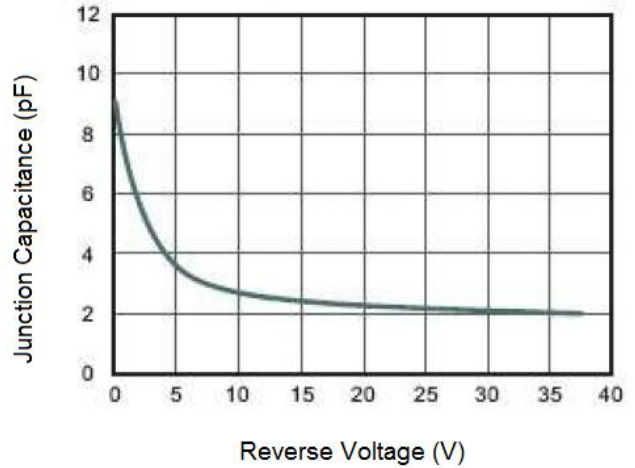


Figure. 4 Typical Junction Capacitance

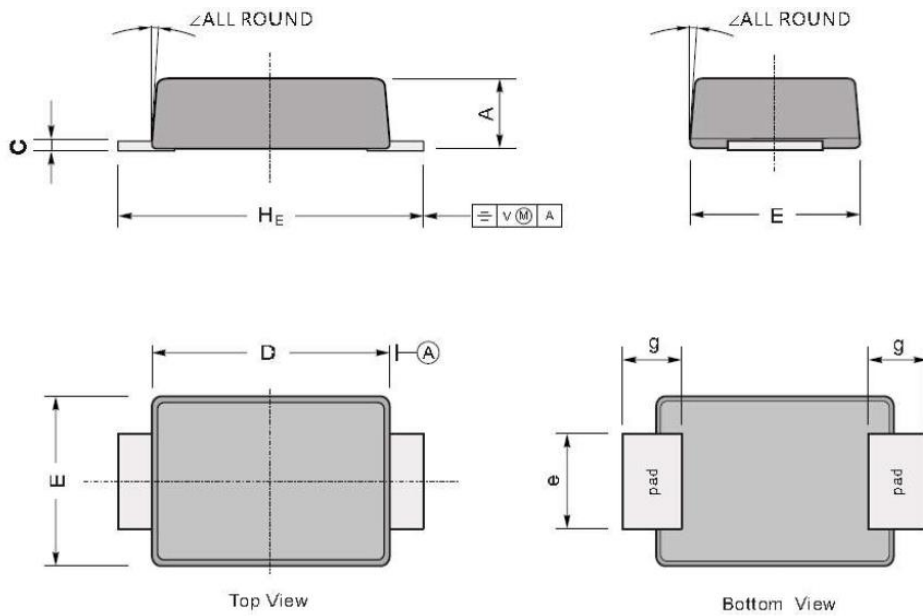




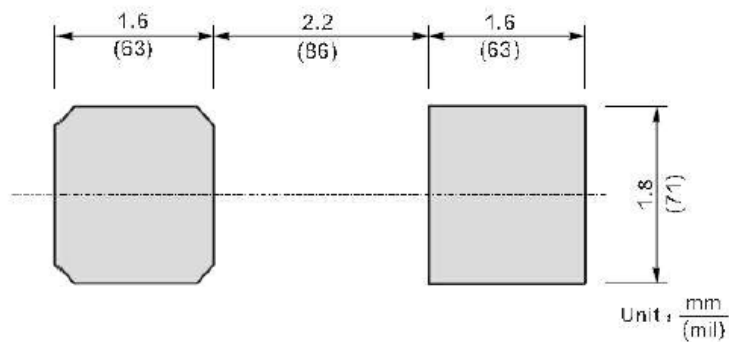
**PACKAGE INFORMATION**

Dimension in SMAF (Unit: mm)

Plastic surface mounted package; 2 leads



The recommended mounting pad size



Unit:  $\frac{\text{mm}}{\text{mil}}$

UNIT		A	C	D	E	e	g	H <sub>E</sub>	$\sphericalangle$
mm	Max	1.1	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	43	7.9	146	106	63	47	193	
	Min	35	4.7	130	94	51	31	173	



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