S2AF THRU S2MF

Surface Mount General Purpose Silicon Rectifiers

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Reverse Voltage - 50 to 1000 V

Forward Current - 2 A

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

Top View
Marking Code : S2A-S2M
Simplified outline SMAF and symbol

FEATURES

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Juntion
- Easy to pick and place
- 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 0.00086oz

Maximum Ratings and Electrical characteristics

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

Parameter	Symbols	S2AF	S2BF	S2DF	S2GF	S2JF	S2KF	S2MF	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 Ta = 65 °C	$I_{F(AV)}$	2							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	60							A
Maximum Instantaneous Forward Voltage at 2 A	V_F	1.1							V
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta =125 °C	I_R	5 50							μA
Typical Junction Capacitance 1)	C_j	30							pF
Typical Thermal Resistance 2)	$R_{\theta JA}$	50							°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150							°C

1) Measured at 1 MHz and applied reverse voltage of 4 V D.C
2) Thermal resistance from junction to ambient at 0.375" (9.5 mm) lead length, P.C.B. mounted

Fig.1 Forward Current Derating Curve

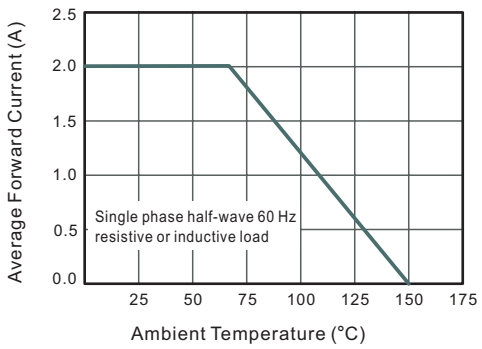


Fig.2 Typical Instaneous Reverse Characteristics

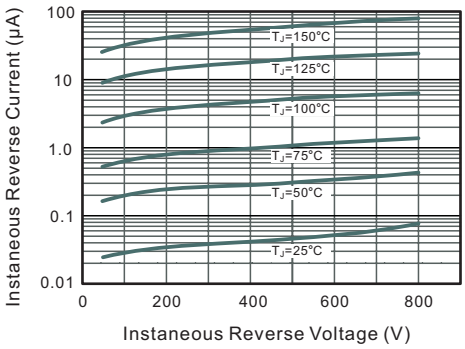


Fig.3 Typical Forward Characteristic

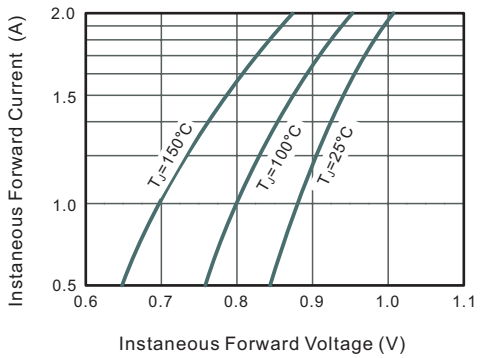
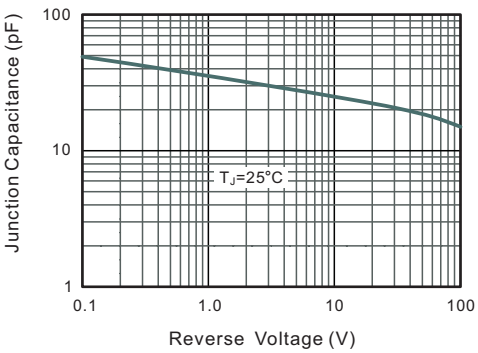


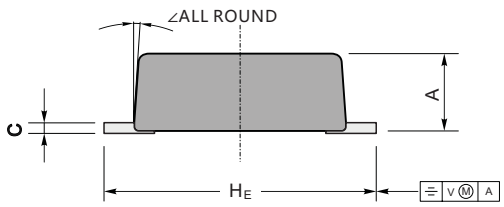
Fig.4 Typical Junction Capacitance

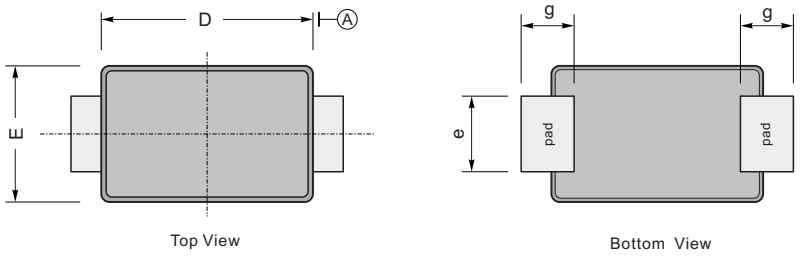


PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SMAF





UNIT		A	C	D	E	e	g	H_E	∠
mm	max	1.1	0.23	3.7	2.7	1.6	1.3	4.9	7°
	min	0.9	0.18	3.3	2.4	1.3	1.0	4.4	
mil	max	43	9.1	146	106	63	51	193	
	min	35	7.1	130	94	51	39	173	

The recommended mounting pad size

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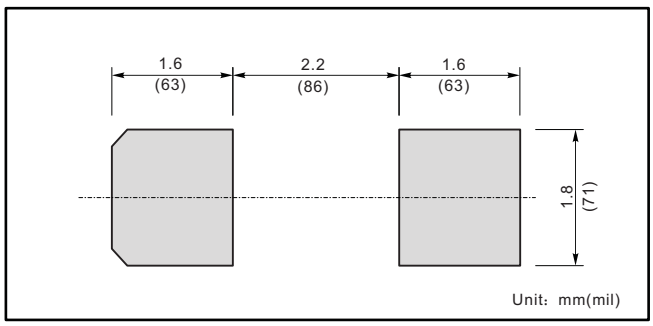

Marking

Type number	Marking code
S2AF	S2A
S2BF	S2B
S2DF	S2D
S2GF	S2G
S2JF	S2J
S2KF	S2K
S2MF	S2M