

# **RS1AF THRU RS1MF**

## SURFACE MOUNT SUPER FAST RECTIFIER

#### **FEATURES**

Reverse Voltage: 50 to 1000 V Forward Current - 1 A

• Foor surface moounted applications

• Low profile package

• Glass Passivated Chip Juntion

• Easy to pick and place

• Fast reverse recovery time

• Lead free in comply with EU RoHS 2011/65/EU directives

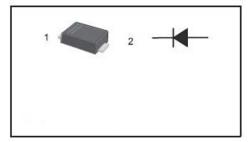
### **MECHANICAL DATA**

• Case: SMAF

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

• pprox. Weight: 27mg 0.00086oz

#### PINNING PIN DESCRIPTION Cathode 1 2 Anode



## **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	RS1AF	RS1BF	RS1DF	RS1GF	RS1JF	RS1KF	RS1MF	Units
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at Ta = 65 °C	I <sub>F(AV)</sub>				1				А
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>				25				А
Maximum Instantaneous Forward Voltage at 1 A	V <sub>F</sub>				1.3				٧
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta =125 °C	I <sub>R</sub>				5 100				μА
Maximum Reverse Recovery Time 1)	t <sub>rr</sub>		15	50		250	50	00	ns
Typical Junction Capacitance 2)	Cj				15				pF
Operating and Storage Temperature Range	$T_{j}, T_{stg}$	-55 ~ +150						°C	

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<sup>2)</sup> Measured at 1MHz and applied reverse voltage of 4V D.C



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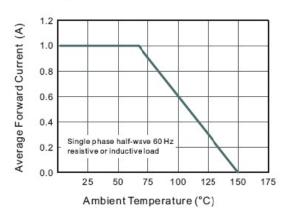


Fig.3 Typical Instaneous Forward Characteristics

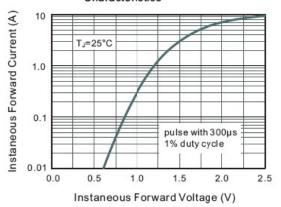


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

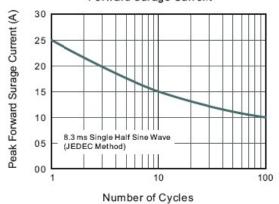


Fig.2 Typical Reverse Characteristics

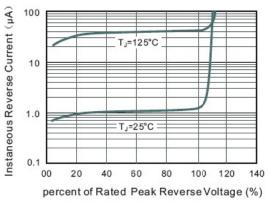
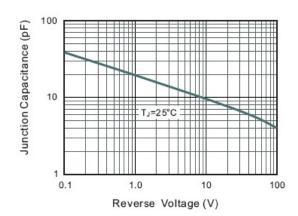


Fig.4 Typical Junction Capacitance





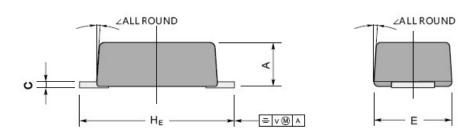
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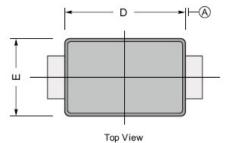
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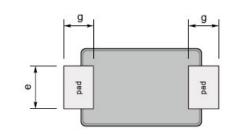
### PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

#### **SMAF**



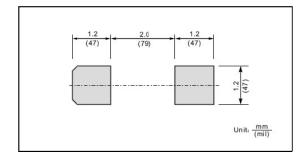




W Bottom View

UNIT		Α	С	D	Е	е	g	HE	<b>∠</b>
mm	max	1.3	0.23	3.7	2.7	1.6	1.3	4.9	7°
	min	1.1	0.18	3.3	2.4	1.3	1.0	4.4	
mil	max	51	9.1	146	106	63	51	193	
	min	43	7.1	130	94	51	39	173	

### 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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