CHINA BASE INTERNATIONAL

SMAF
RS1AF-RS1MF

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RS1AF THRU RS1MF

Surface Mount Fast Recovery Rectifier

Essential information; basic information

Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- High forward surge capability
- Fast reverse recovery time
- per J-STD-020, LF maximum peak of 260 °C

Typical Applications

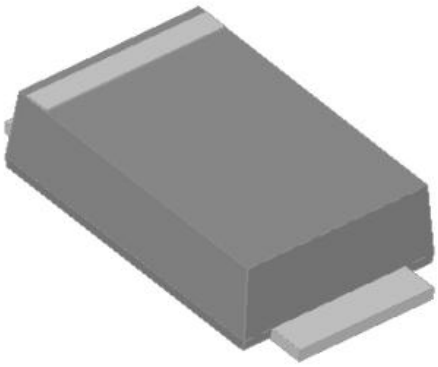
For use in high frequency rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, and telecommunication.

Mechanical Data

- Package: SMAF-L

Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant

- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: Cathode line denotes the cathode end



Maximum Ratings (Ta=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	RS1AF	RS1BF	RS1DF	RS1GF	RS1JF	RS1KF	RS1MF
Maximum Repetitive peak reverse voltage	VRRM	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	VRMS	V	35	70	140	280	420	560	700
Maximum DC Blocking Voltage	VDC	V	50	100	200	400	600	800	1000
AverageRectifiedOutputCurrent@60Hz sine wave, resistance load, TL (Fig.1)	IO	A	1.0						
ForwardSurgeCurrent(Non-repetitive) @60Hz Half-sine wave,1 cycle,Tj=25℃	IFSM	A	25						
Storage temperature	Tstg	℃	-55 ~ +150						
Junction temperature	Tj	℃	-55 ~ +150						
Maximum instantaneous forward voltage drop per diode	VF（IFM=1.0A）	V	1.35						
Maximum reverse recovery time	Trr （I_F=0.5A,I_R=1.0A, I_{rr}=0.25A ）	ns	150				250		500
Maximum DC reverse current at rated DC blocking voltage per diode	IR（Tj =25℃）	μA	5						
	IR（Tj =125℃）		100						

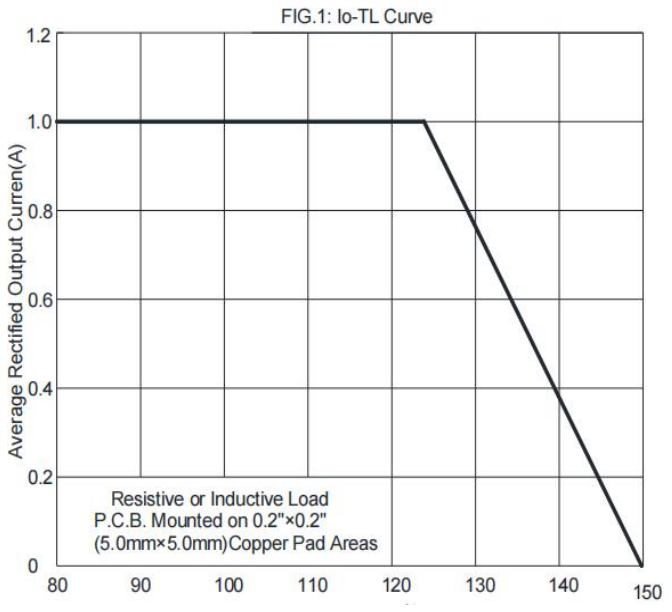
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Thermal Characteristics （Ta=25℃ Unless otherwise specified）

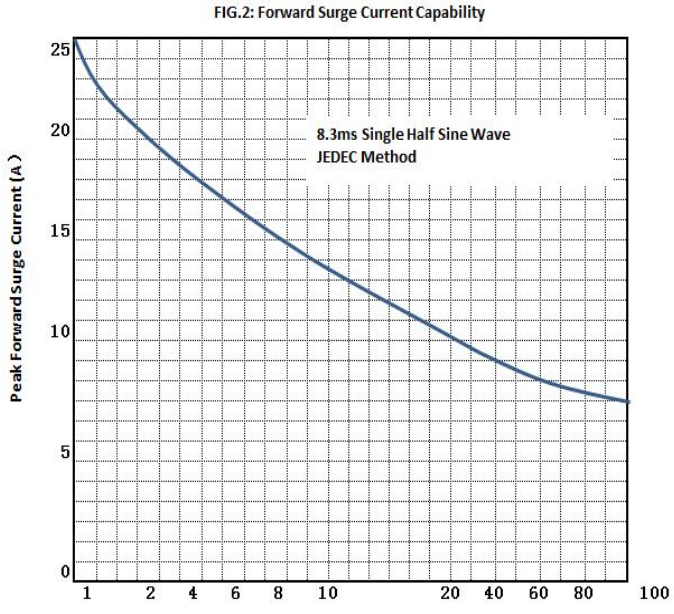
PARAMETER	SYMBOL	UNIT	RS1AF	RS1BF	RS1DF	RS1GF	RS1JF	RS1KF	RS1MF
Typical Thermal resistance	RθJ-A(1)	℃/W	70						
	RθJ-L(1)		20						
	RθJ-C(1)		18						

Note:(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

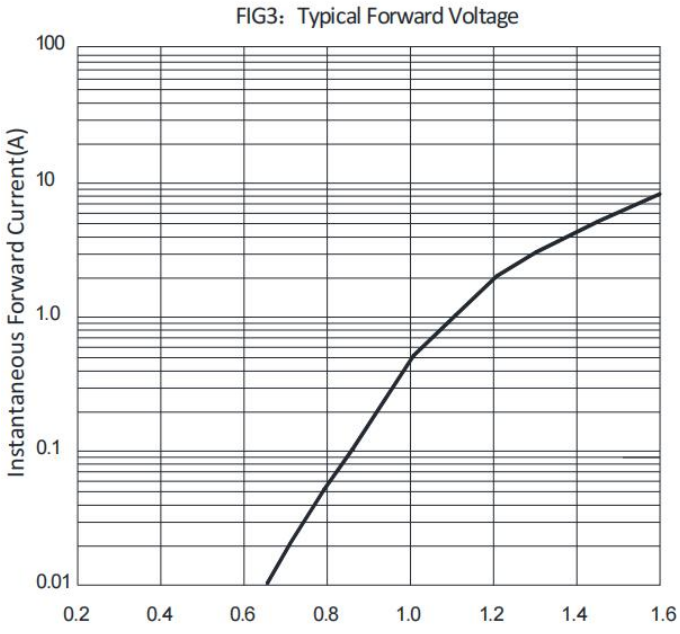
Characteristics (Typical)



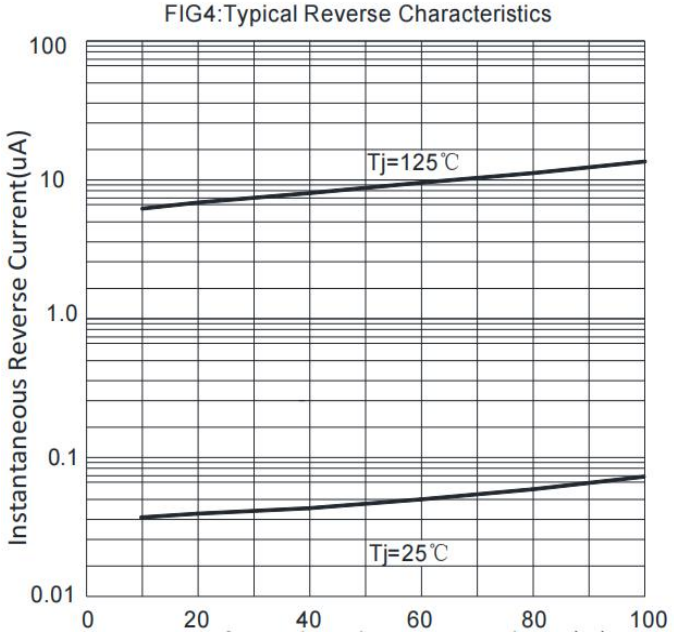
Lead Temperature (℃)



Number of Cycles



Instantaneous Forward Voltage(V)



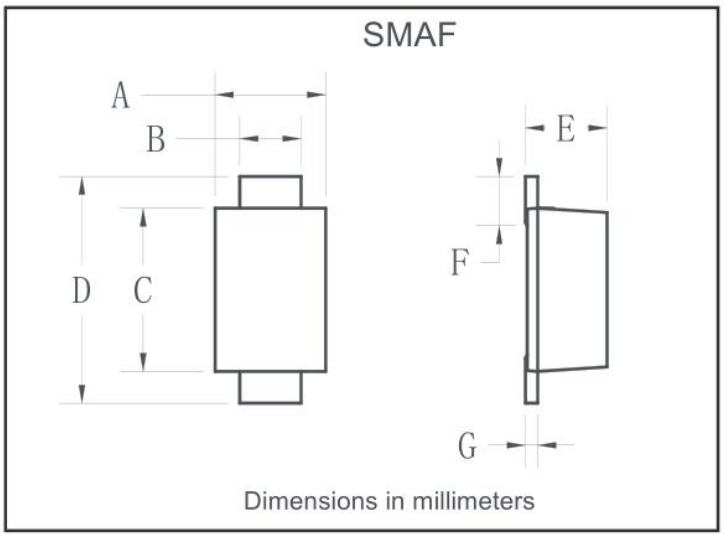
Percent of Rated Peak Reverse Voltage (%)

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Ordering Information (Example)

type specification	manner of packin	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
RS1AF-RS1MF （SMAF-L）	T/B	3000	18000	180000	7” reel
		3000	21000	210000	7” reel
		3000	24000	240000	7” reel
		5000	10000	100000	11” reel
		10000	20000	200000	13” reel

Outline Dimensions



SMAF		
Dim	Min	Max
A	2.40	2.80
B	1.35	1.45
C	3.40	3.60
D	4.40	4.80
E	1.05	1.25
F	0.50	1.00
G	0.15	0.22

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