

SMAF Surface Mount Fast Recovery Rectifier

Features

- Low profile package
- Ideal for automated placement
- Glass passivated pallet chip junction
- Fast reverse recovery time
- Fast switching for high efficiency
- High forward surge capability

Applications

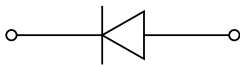
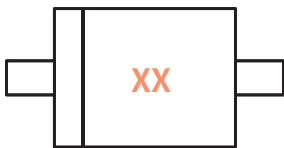
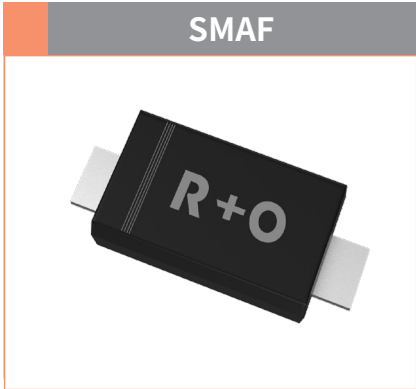
For use in fast switching rectification of power supplies,inverters, converters, and free wheeling diodes forconsumer, and telecommunication.

Mechanical Data

- Case: SMAF
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: Cathode line denotes the cathode end

Function Diagram

Reverse Voltage
50-1000 V
Forward Current
2 Ampere



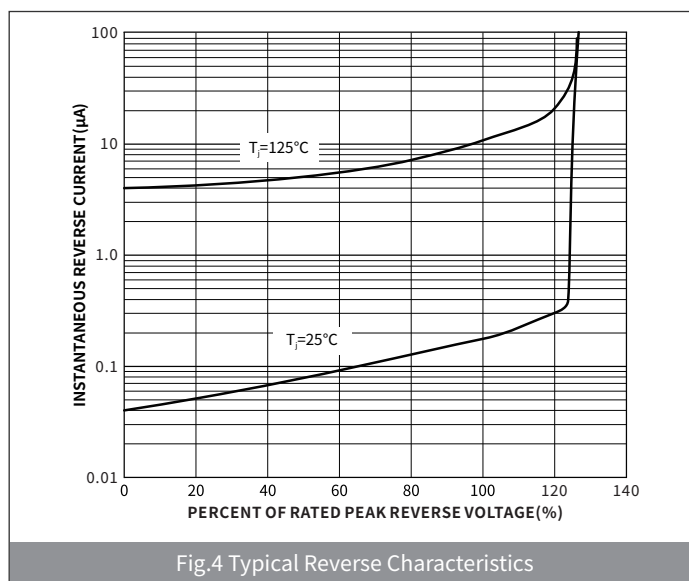
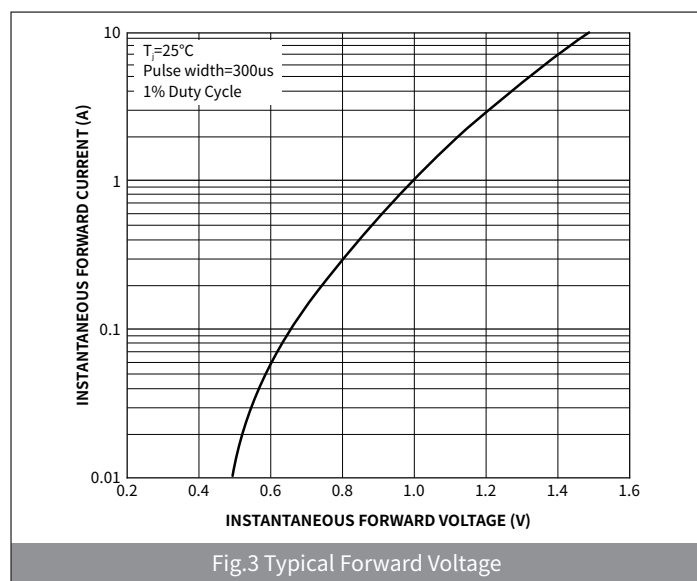
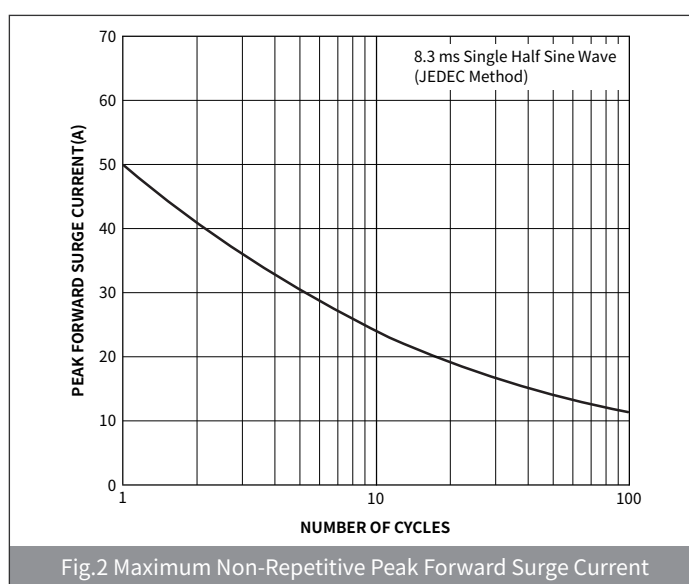
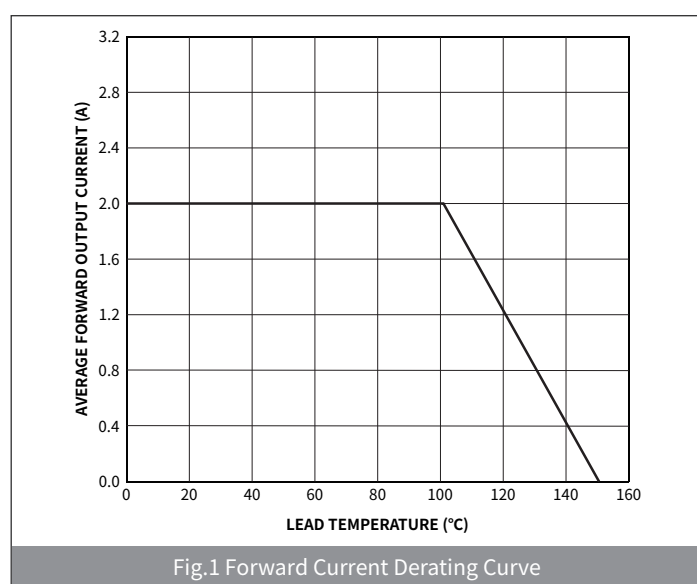
Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	RS2AF	RS2BF	RS2DF	RS2GF	RS2JF	RS2KF	RS2MF
Device marking code			RS2AF	RS2BF	RS2DF	RS2GF	RS2JF	RS2KF	RS2MF
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V _{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V _{DC}	V	50	100	200	400	600	800	1000
Maximum Average Forward Rectified Current @ 60Hz sinewave, Resistance load,TL (Fig.1)	I _{F(AV)}	A	2.0						
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I _{FSM}	A	50						
Storage temperature	T _{stg}	°C	-55 ~ +150						
Junction temperature	T _j	°C	-55 ~ +150						
Typical Thermal Resistance	R _{θJ-A}	°C /W	70						
	R _{θJ-L}	°C /W	20						

● Electrical Characteristics (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	RS2AF	RS2BF	RS2DF	RS2GF	RS2JF	RS2KF	RS2MF
Maximum instantaneous forward voltage	I _F =2.0A	V _F	V	1.3						
Maximum reverse recovery time	I _F =0.5A,I _R =1.0A,I _{rr} =0.25A	T _{rr}	ns	150				250	500	
Maximum DC reverse currentat rated DC blocking voltage	V _R =V _{DC} , T _A =25°C	I _{R1}	μA	5.0						
	V _R =V _{DC} , T _A =125°C	I _{R2}		500						
Typical junction capacitance	4.0V DC,1MHz	C _J	pF	50						

● Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)



RS2AF THRU RS2MF

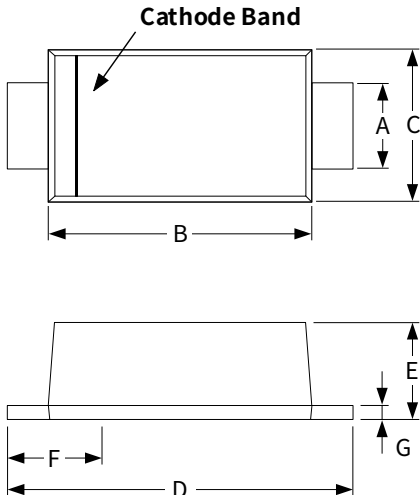
SURFACE MOUNT FAST RECOVERY RECTIFIER

● Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SMAF	R1	0.034	3000	12000	120000	7"
SMAF	R2	0.034	7500	15000	120000	11"
SMAF	R3	0.034	7500	/	120000	13"

● Package Outline Dimensions (SMAF)

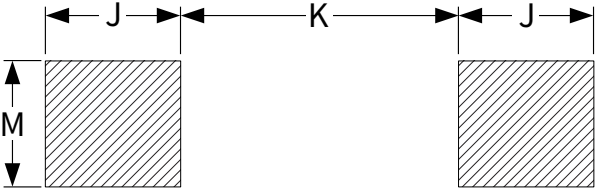
Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.30	1.60	0.051	0.063
B	3.30	3.70	0.129	0.145
C	2.40	2.70	0.094	0.105
D	4.40	4.90	0.172	0.191
E	0.90	1.20	0.035	0.047
F	0.80	1.20	0.031	0.047
G	0.12	0.20	0.005	0.008



The diagram shows two views of the SMAF package. The top view is a rectangle with dimensions B (width) and C (height). A vertical line on the left side is labeled 'Cathode Band'. The bottom view is a trapezoid with dimensions D (total width), E (height), F (bottom width), and G (thickness). Dimension A is the height of the package body.

● Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
M	1.80	-	0.070	-
J	1.60	-	0.063	-
K	-	2.2	-	0.086



The diagram shows a suggested pad layout for the SMAF package. It consists of two shaded rectangular pads. The distance between the inner edges of the pads is labeled K. The width of each pad is labeled J. The height of each pad is labeled M.