

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 for consumer, and telecommunication.

Mechanical Data

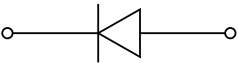
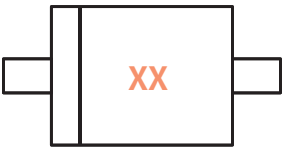
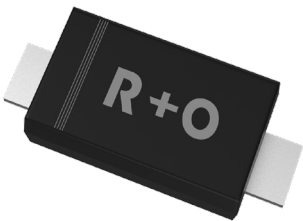
- Case: SMAF
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Cathode line denotes the cathode end

Function Diagram

Reverse Voltage
50-1000 V

Forward Current
3 Ampere

SMAF



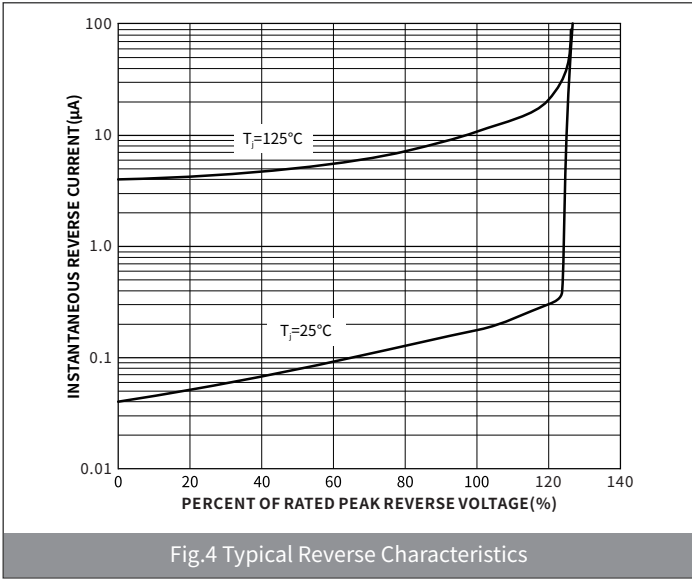
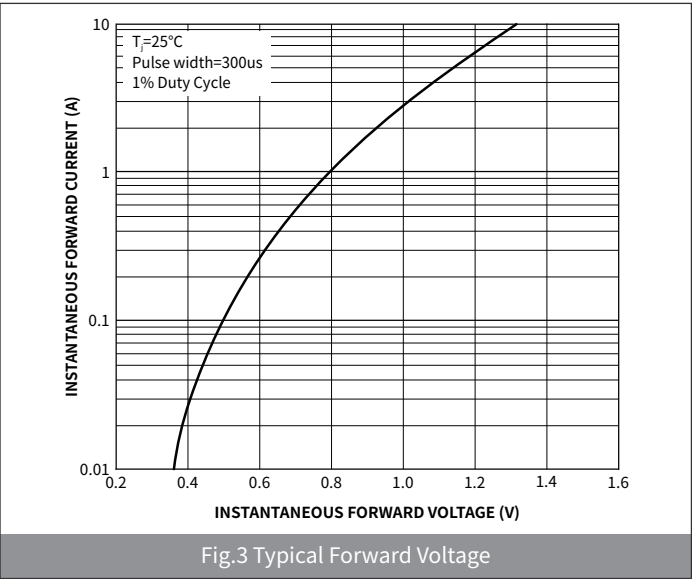
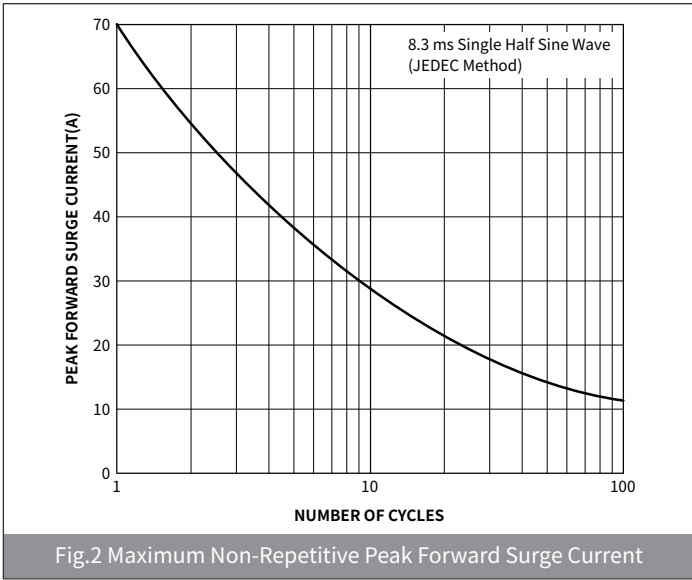
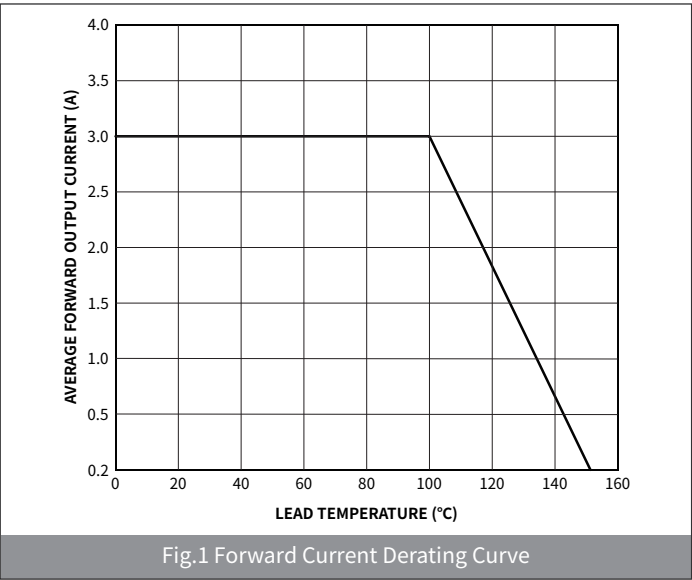
Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	RS3AF	RS3BF	RS3DF	RS3GF	RS3JF	RS3KF	RS3MF
Device marking code			RS3AF	RS3BF	RS3DF	RS3GF	RS3JF	RS3KF	RS3MF
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	3.0						
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I _{FSM}	A	70						
Storage temperature	T _{stg}	°C	-55 ~ +150						
Junction temperature	T _j	°C	-55 ~ +150						
Typical Thermal Resistance	R _{θJA}	°C /W	70						
	R _{θJL}	°C /W	23						

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

Table with 11 columns: PARAMETER, TEST CONDITIONS, SYMBOL, UNIT, RS3AF, RS3BF, RS3DF, RS3GF, RS3JF, RS3KF, RS3MF. Rows include Maximum instantaneous forward voltage, Maximum reverse recovery time, Maximum DC reverse current, and Typical junction capacitance.

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



RS3AF THRU RS3MF

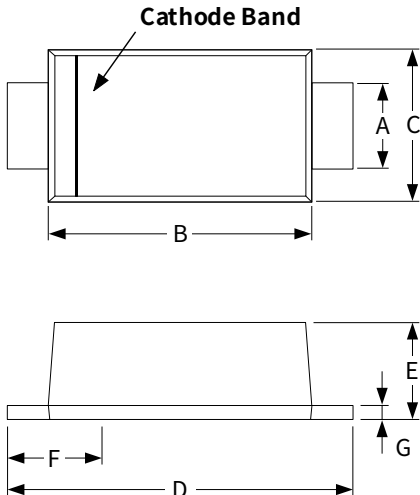
SURFACE MOUNT FAST RECOVERY RECTIFIER

● 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)

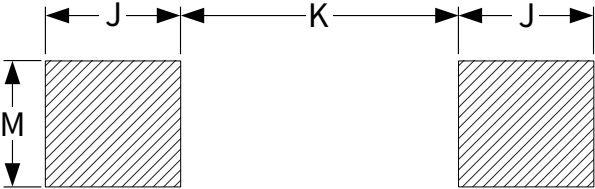
Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.30	1.60	0.051	0.063
B	3.30	3.70	0.129	0.145
C	2.40	2.70	0.094	0.105
D	4.40	4.90	0.172	0.191
E	0.90	1.20	0.035	0.047
F	0.80	1.20	0.031	0.047
G	0.12	0.20	0.005	0.008



The diagram shows the top and side views of the SMAF package. The top view labels dimensions A (height of the cathode band), B (width of the cathode band), C (height of the package), D (total width), E (height of the package body), F (width of the package body), and G (height of the package body). The side view labels dimensions A (height of the cathode band), B (width of the cathode band), C (height of the package), D (total width), E (height of the package body), F (width of the package body), and G (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 the suggested pad layout for the SMAF package. It includes dimensions J (width of the pad), K (width of the pad), and M (height of the pad).