

SMAF Surface Mount Schottky Barrier Rectifier

Features

- High efficiency operation
- Metal silicon junction, majority carrier conduction
- Ultra low forward voltage drop, low power losses
- High forward surge current capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

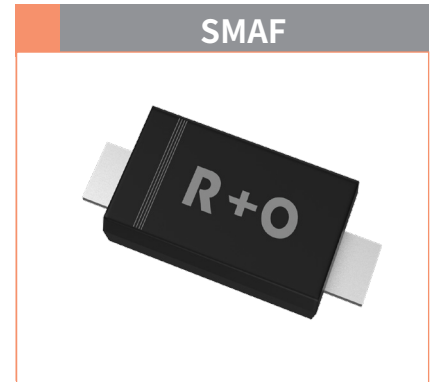
Reverse Voltage
20-100 V
Forward Current
3 Ampere

Applications

For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

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



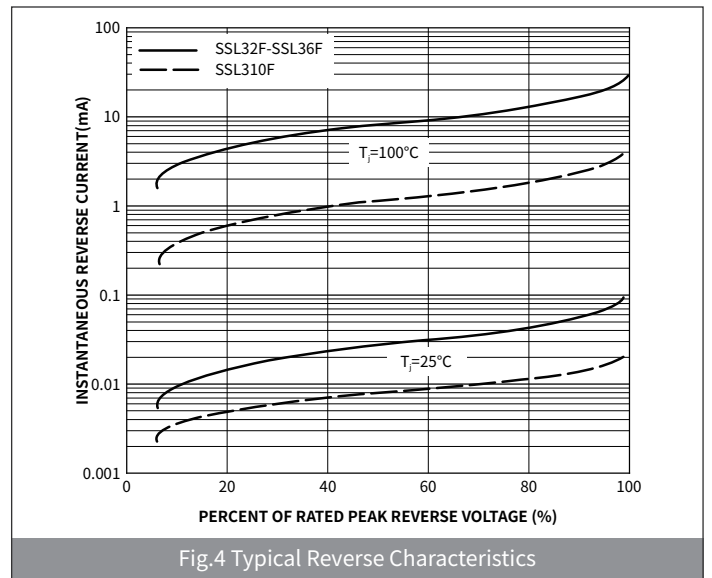
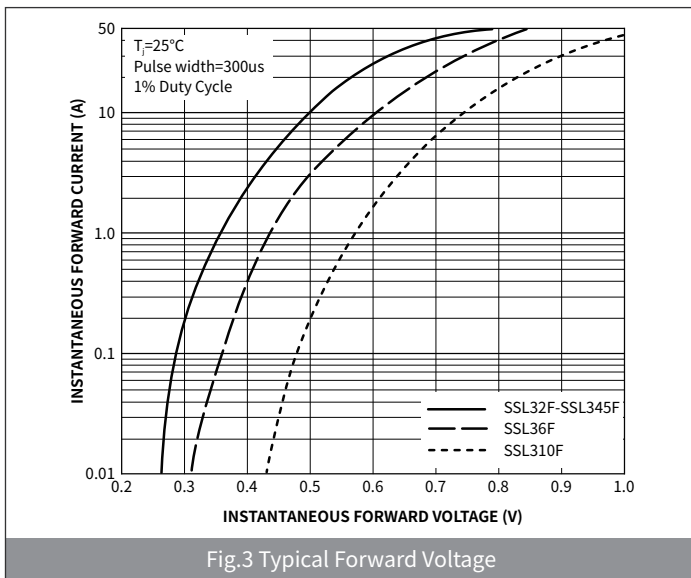
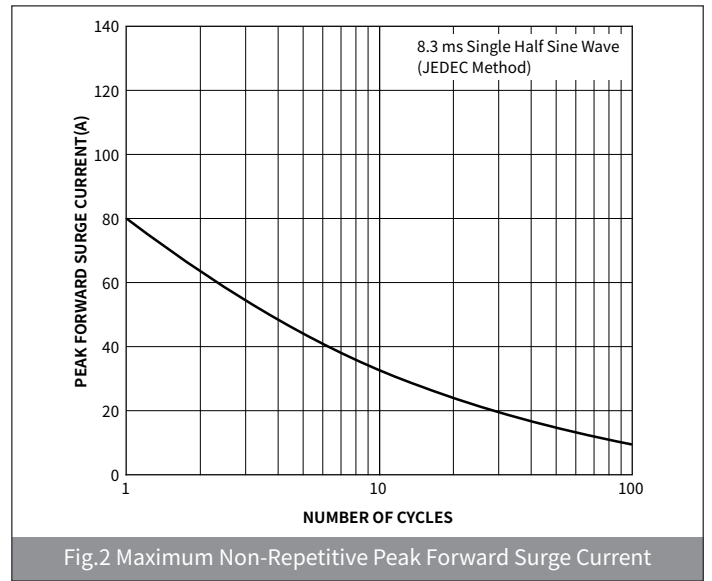
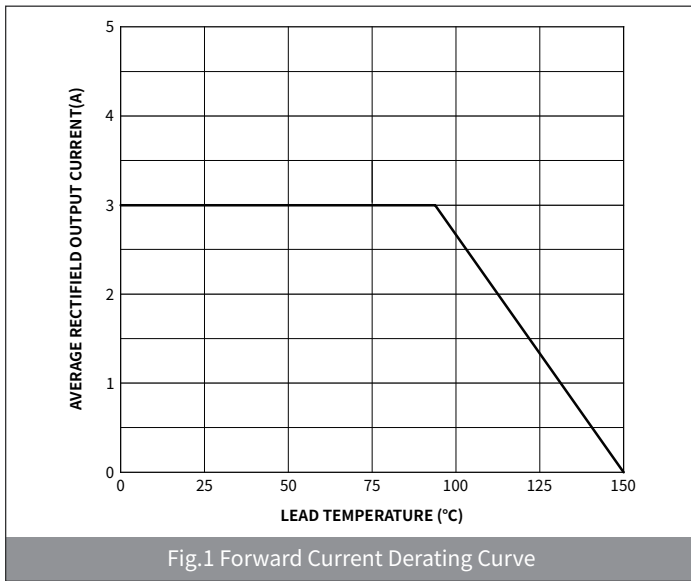
Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SSL32F	SSL34F	SSL345F	SSL36F	SSL310F	
Device marking code			SSL32F	SSL34F	SSL345F	SSL36F	SSL310F	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	20	40	45	60	100	
Maximum RMS Voltage	V_{RMS}	V	14	28	32	42	70	
Maximum DC blocking Voltage	V_{DC}	V	20	40	45	60	100	
Maximum Average Forward Rectified Current @60Hz sine wave, 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	80					
Storage temperature	T_{stg}	°C	-55 ~ +150					
Junction temperature	T_j	°C	-55 ~ +125					55 ~ +150
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	75					
	$R_{\theta J-L}$	°C /W	20					

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	SSL32F	SSL34F	SSL345F	SSL36F	SSL310F
Maximum instantaneous forward voltage	$I_F=3.0A$	V_F	V	0.48			0.55	0.7
Maximum DC reverse current at rated DC blocking voltage	$V_R=V_{DC}, T_A=25^\circ C$	I_{R1}	mA	0.5				0.2
	$V_R=V_{DC}, T_A=100^\circ C$	I_{R2}		50				20
Typical junction capacitance	4.0V DC, 1MHz	C_J	pF	400		450		280

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



SSL32F THRU SSL310F

SURFACE MOUNT SCHOTTKY BARRIER 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

● 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

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