

SMBF 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
20-200 V

Forward Current
3 Ampere

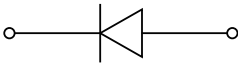
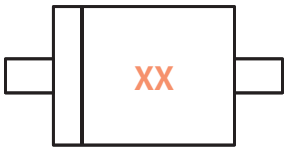
Applications

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

Mechanical Data

- Case: SMBF
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



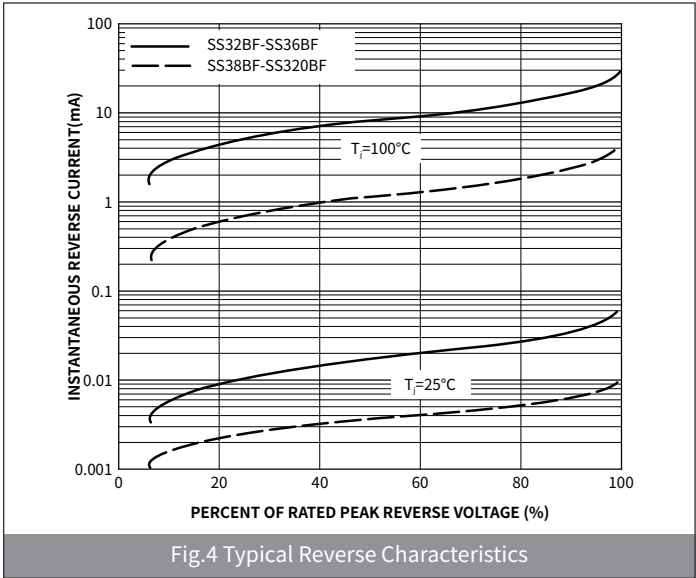
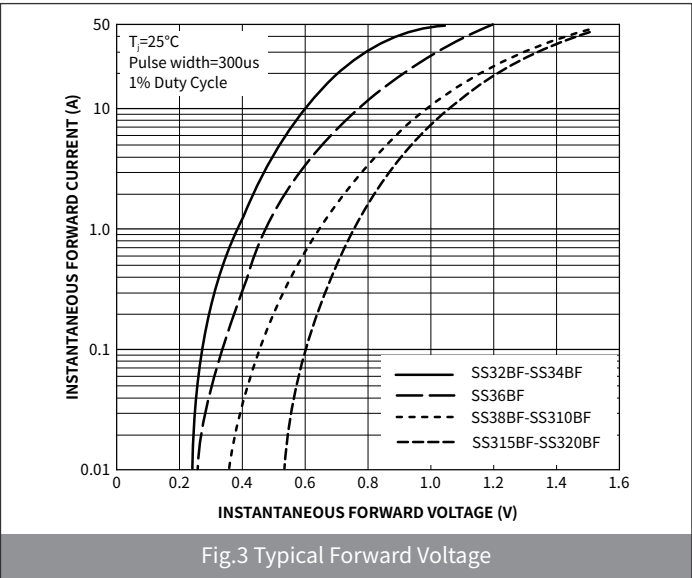
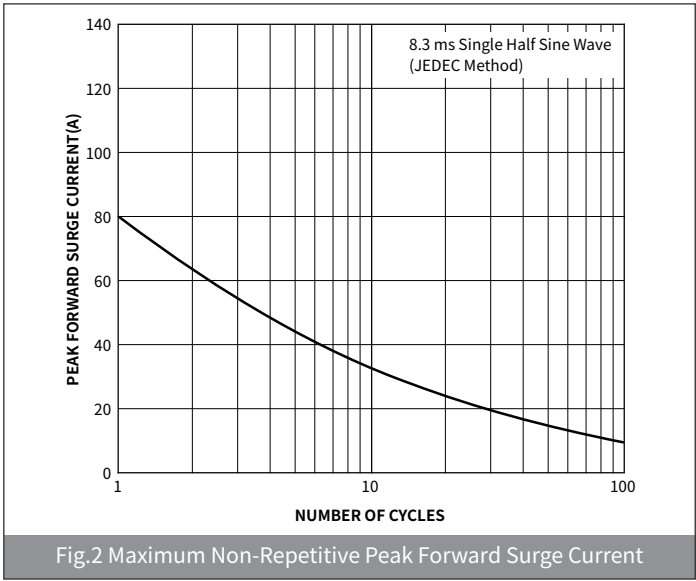
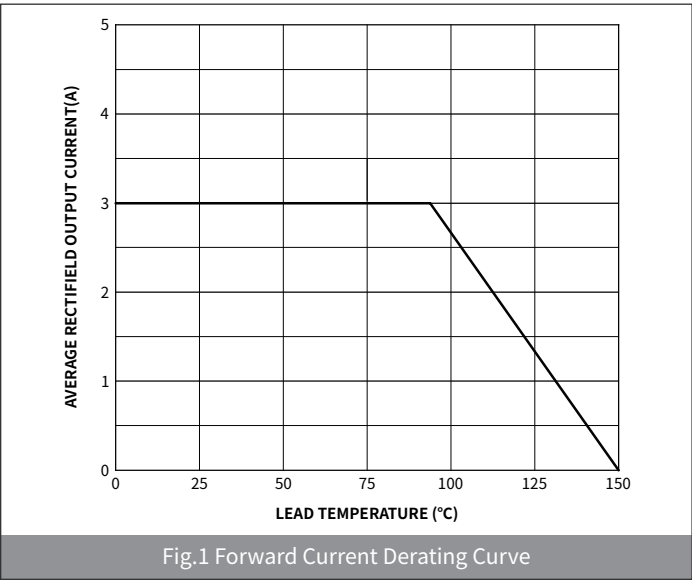
Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS32BF	SS34BF	SS36BF	SS38BF	SS310BF	SS315BF	SS320BF
Device marking code			SS32BF	SS34BF	SS36BF	SS38BF	SS310BF	SS315BF	SS320BF
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	V	20	40	60	80	100	150	200
Maximum RMS Voltage	V _{RMS}	V	14	28	42	56	70	105	140
Maximum DC blocking Voltage	V _{DC}	V	20	40	60	80	100	150	200
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 ~ +150						
Typical Thermal Resistance	R _{θJ-A}	°C /W	78						
	R _{θJ-L}	°C /W	20						

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	SS32BF	SS34BF	SS36BF	SS38BF	SS310BF	SS315BF	SS320BF
Maximum instantaneous forward voltage	$I_F=3.0A$	V_F	V	0.55		0.70		0.85		0.95
Maximum DC reverse current at rated DC blocking voltage	$V_R=V_{DC}, T_A=25^{\circ}C$	I_{R1}	mA	0.5				0.05		
	$V_R=V_{DC}, T_A=100^{\circ}C$	I_{R2}		50				10		
Typical junction capacitance	4.0V DC, 1MHz	C_J	pF	450				400		

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



SS32BF THRU SS320BF

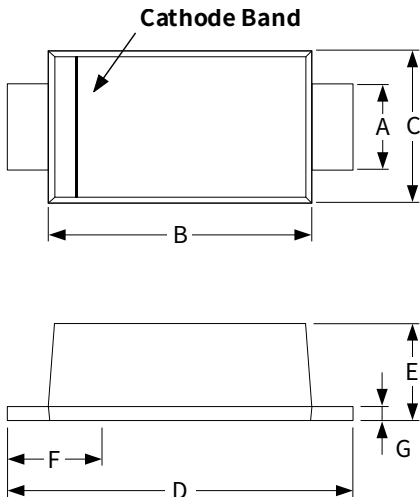
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

● Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SMBF	R2	0.065	3000	6000	48000	11"
SMBF	R3	0.065	5000	10000	80000	13"

● Package Outline Dimensions (SMBF)

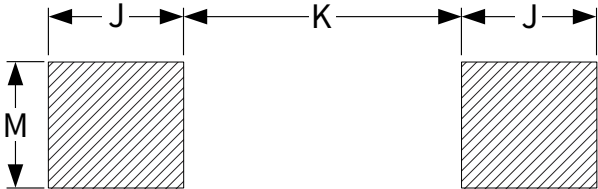
Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.90	2.10	0.074	0.083
B	4.15	4.45	0.163	0.175
C	3.40	3.80	0.133	0.150
D	5.10	5.60	0.200	0.220
E	1.05	1.55	0.041	0.061
F	0.70	1.35	0.027	0.053
G	0.15	0.25	0.006	0.010



The diagram shows two views of the SMBF package. The top view is a rectangle with dimensions A (height of the cathode band), B (width), and C (total height). A label 'Cathode Band' points to the left side. The bottom view is a perspective of the package showing dimensions D (total length), E (height of the package body), F (width of the package body), and G (height of the cathode band).

● Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
M	2.20	-	0.086	-
J	1.90	-	0.075	-
K	-	2.40	-	0.094



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