

SMBF Surface Mount General Purpose Rectifier

Features

- For surface mounted applications
- Low reverse leakage
- High forward surge current capability
- Glass passivated Standard rectifiers
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

Reverse Voltage
50-1000 V
Forward Current
5 Ampere

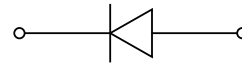
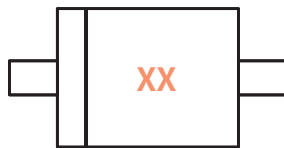
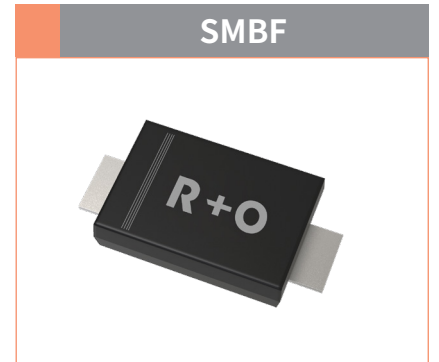
Applications

For use in general purpose rectification of power supplies, inverters, converters, and freewheeling diodes for consumer and telecommunication

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	S5ABF	S5BBF	S5DBF	S5GBF	S5JBF	S5KBF	S5MBF
Device marking code			S5ABF	S5BBF	S5DBF	S5GBF	S5JBF	S5KBF	S5MBF
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	5.0						
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	150						
Storage temperature	T_{stg}	°C	-55 ~+150						
Junction temperature	T_j	°C	-55 ~+150						
Typical Thermal Resistance	$R_{\theta J-A}^{(1)}$	°C /W	85						
	$R_{\theta J-L}^{(1)}$	°C /W	30						

Note : (1)Thermal resistance from junction to ambient and from junction tolead mounted on P.C.B.with 0.2" × 0.2"(5.0mm x5.0 mm) copper pad areas

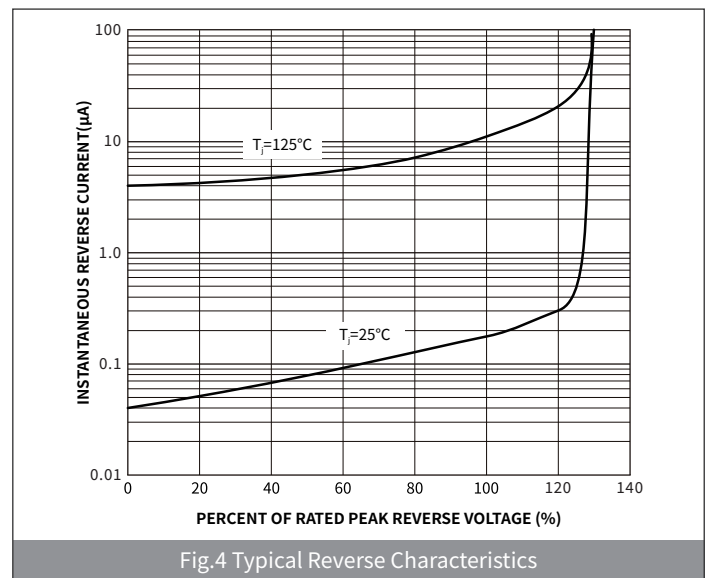
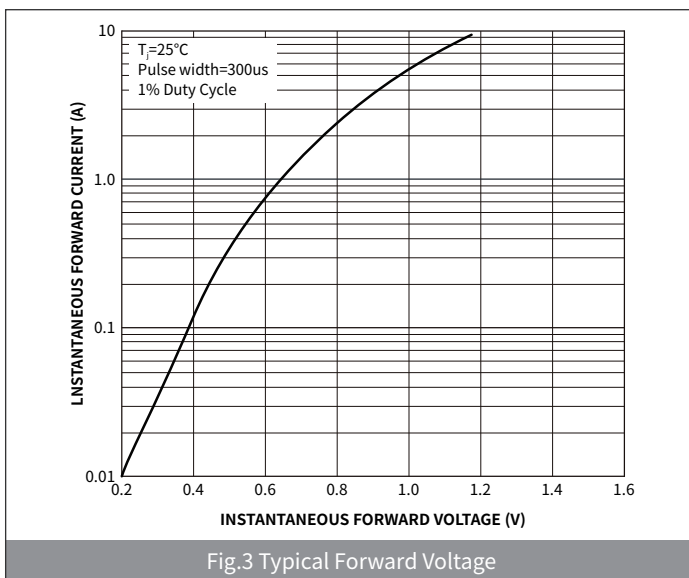
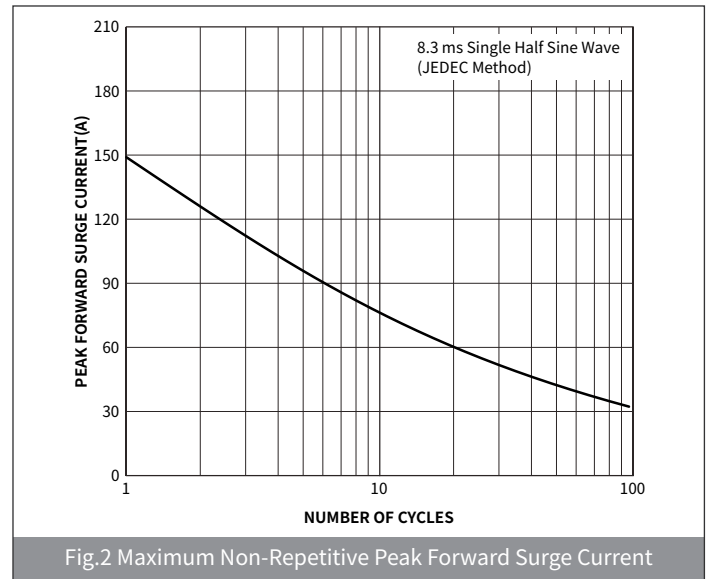
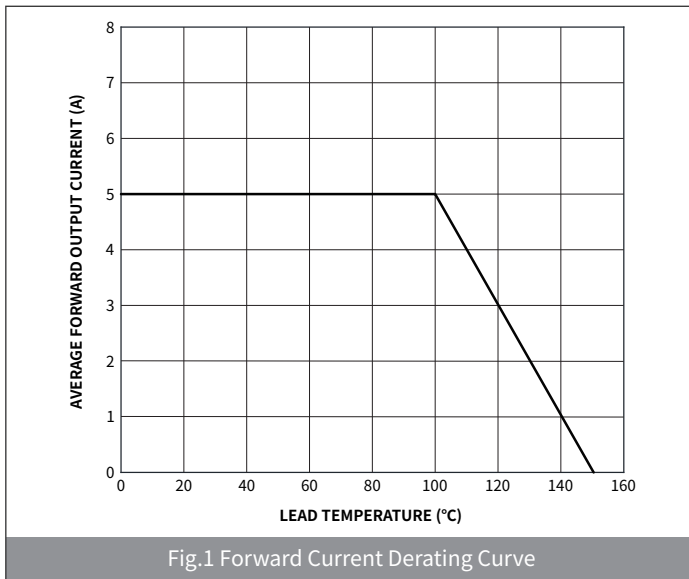
S5ABF THRU S5MBF

SURFACE MOUNT GENERAL PURPOSE RECTIFIER

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	S5ABF	S5BBF	S5DBF	S5GBF	S5JBF	S5KBF	S5MBF
Maximum instantaneous forward voltage	$I_F=5.0A$	V_F	V				1.0			
Maximum DC reverse current at rated DC blocking voltage	$V_R=V_{DC}, T_A=25^\circ C$	I_{R1}	μA				2.0			
	$V_R=V_{DC}, T_A=125^\circ C$	I_{R2}					200			
Typical junction capacitance	4.0V DC, 1MHz	C_J	pF				50			

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



S5ABF THRU S5MBF

SURFACE MOUNT GENERAL PURPOSE 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

● 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