Surface Mount Schottky Rectifier



Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Typical Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

Mechanical Data

- **Package**: SMBF
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

■Maximum Ratings (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS32BF	SS33BF	SS34BF	SS35BF	SS36BF	SS38BF	SS310 BF	SS315 BF	SS320 BF
Device marking code			SS32BF	SS33BF	SS34BF	SS35BF	SS36BF	SS38BF	SS310 BF	SS315 BF	SS320 BF
Repetitive peak reverse voltage	V_{RRM}	V	20	30	40	50	60	80	100	150	200
Average rectified output current @60Hz sine wave, resistance load, Tc (FIG.1)	I_O	A	3.0								
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, Ta=25℃	I_{FSM}	A	70								
Storage temperature	T_{stg}	℃	-55 ~+150								
Junction temperature	Tj	℃	-55~+125			-55 ~+150		-55 ~+175			

■Electrical Characteristics (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SS32BF	SS33BF	SS34BF	SS35BF	SS36BF	SS38BF	SS310BF	SS315BF	SS320BF
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=3.0A	0.50			0.70		0.85		0.90	
Maximum DC reverse current at rated DC blocking voltage per diode @ $V_{RM}=V_{RRM}$	I_{RRM}	mA	Ta=25℃	0.50					0.10			
			Ta=100℃	10					5			

Note1:Pulse test:300uS pulse widh,1% duty cycle

Note2:Pulse test:pulse widh 40mS

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	SS32BF	SS33BF	SS34BF	SS35BF	SS36BF	SS38BF	SS310BF	SS315BF	SS320BF
Thermal resistance	$R_{\theta J-A}$	℃/W	58[1)]								
	$R_{\theta J-L}$		20[1)]								
	$R_{\theta J-C}$		15[1)]								

Note:
(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16mm) copper pad areas

■ Characteristics(Typical)

FIG1：Io-Tc Curve

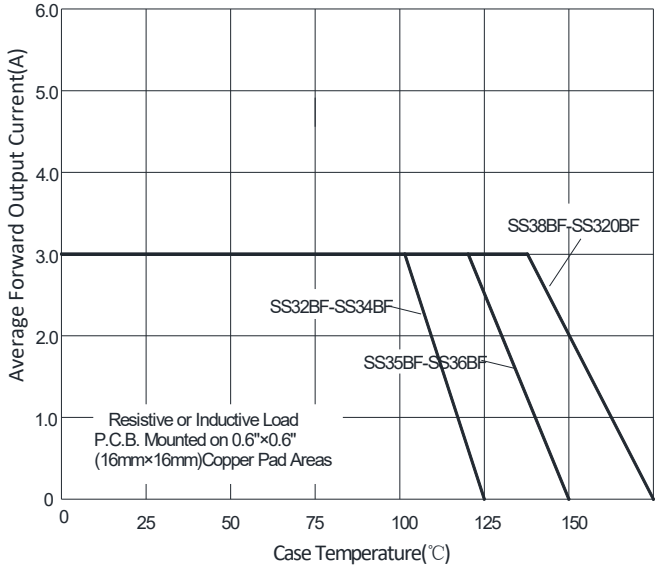


FIG2：Surge Forward Current Capability

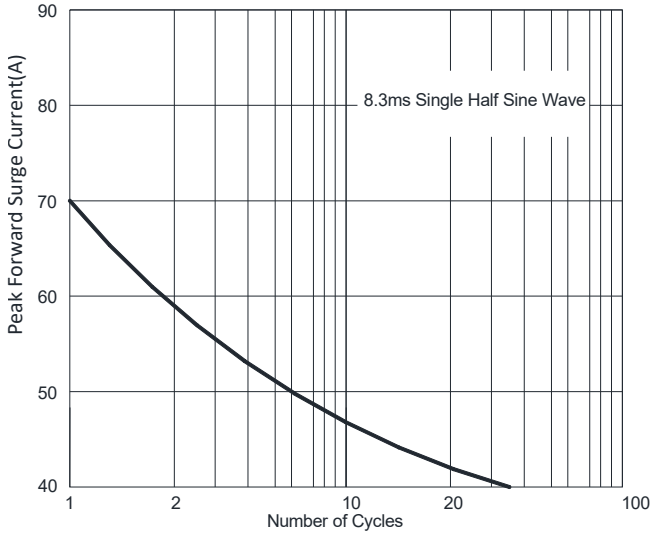


FIG3: Forward Voltage

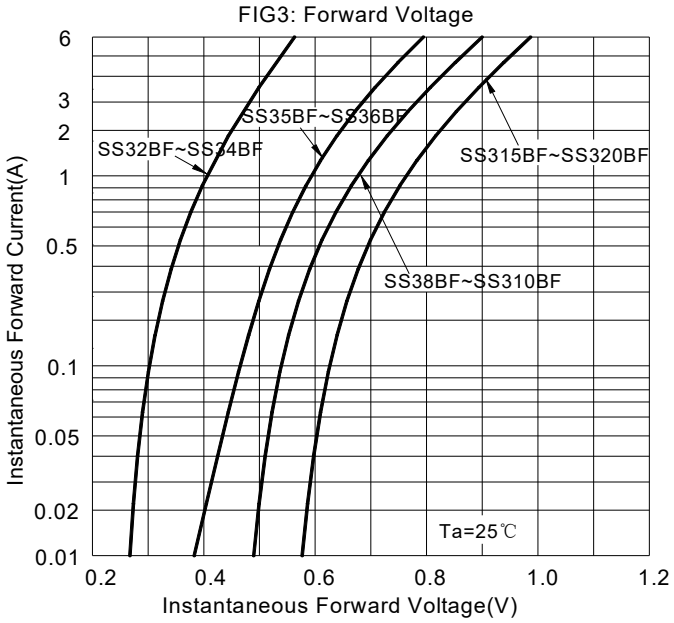
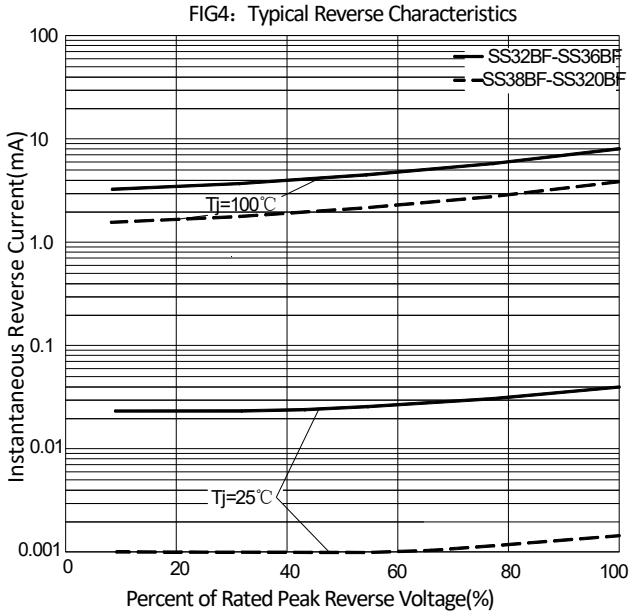


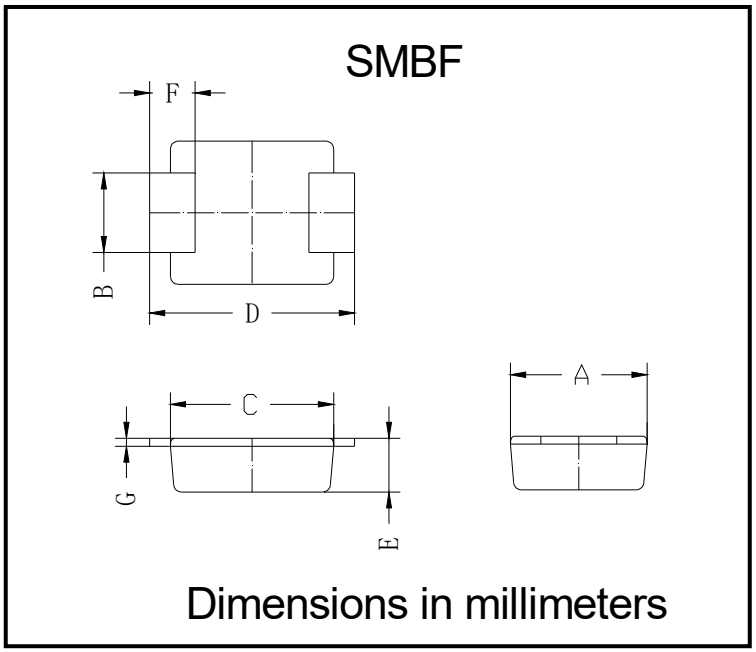
FIG4：Typical Reverse Characteristics



■Ordering Information (Example)

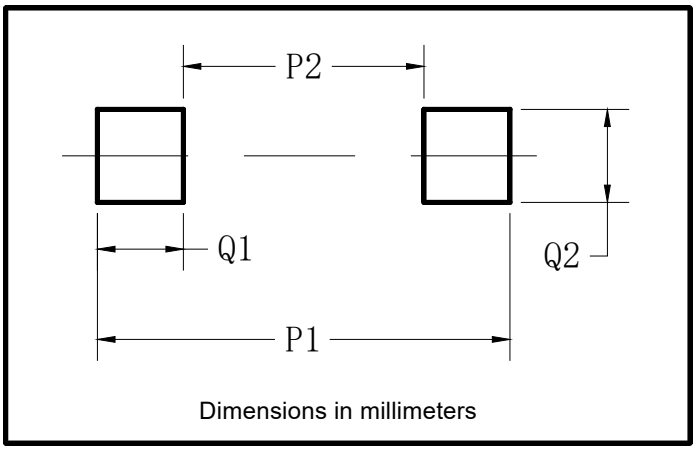
PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SS32BF-SS320BF	F1	Approximate 0.065	5000	/	80000	13” reel

■ Outline Dimensions



SMBF		
Dim	Min	Max
A	3.40	3.80
B	1.90	2.10
C	4.15	4.45
D	5.10	5.60
E	1.05	1.55
F	0.70	1.35
G	0.15	0.25

■ Suggested pad layout



Dim	Milimeters
P1	6.20
P2	2.40
Q1	1.90
Q2	2.20

Notice

All products, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise. Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in STARSEA's terms and conditions of sale for such products, STARSEA assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of STARSEA products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.