

## Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 20 to 200V    Forward Current - 3.0A

### FEATURES

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

### MECHANICAL DATA

- Case: SMBF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 57 mg / 0.002oz

### Absolute Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Parameter	Symbols	SS32BF	SS34BF	SS36BF	SS38BF	SS310BF	SS312BF	SS315BF	SS320BF	Units
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	20	40	60	80	100	120	150	200	V
Maximum RMS voltage	V <sub>RMS</sub>	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>					3.0				A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I <sub>FSM</sub>			80			70			A
Max Instantaneous Forward Voltage at 3 A	V <sub>F</sub>		0.55		0.70		0.85		0.95	V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 100^\circ\text{C}$	I <sub>R</sub>		0.5	5		0.3	3			mA
Typical Junction Capacitance <sup>1)</sup>	C <sub>j</sub>		450			400				pF
Typical Thermal Resistance <sup>2)</sup>	R <sub>θJA</sub>			50						°C/W
Operating Junction Temperature Range	T <sub>j</sub>			-55 ~ +125						°C
Storage Temperature Range	T <sub>stg</sub>			-55 ~ +150						°C

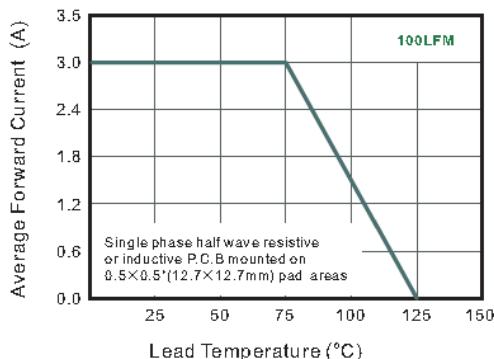
1) Measured at 1MHz and applied reverse voltage of 4 V D.C.    2) P.C.B. mounted with 0.5 X 0.5" (12.7 X 12.7 mm) copper pad areas.

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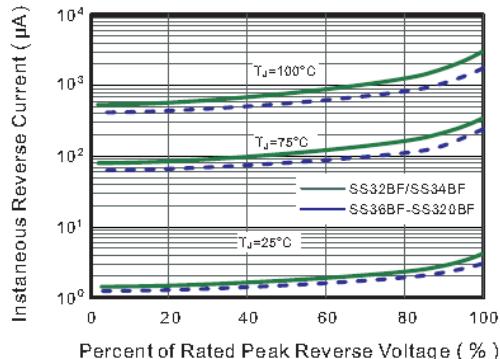
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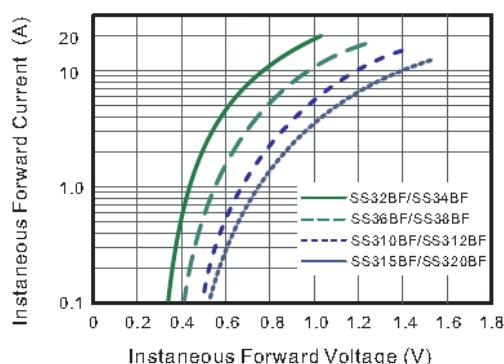
**Fig.1 Forward Current Derating Curve**



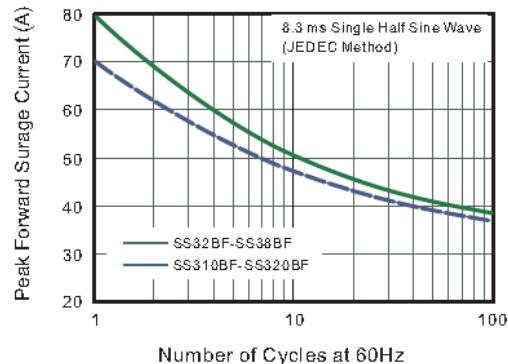
**Fig.2 Typical Reverse Characteristics**



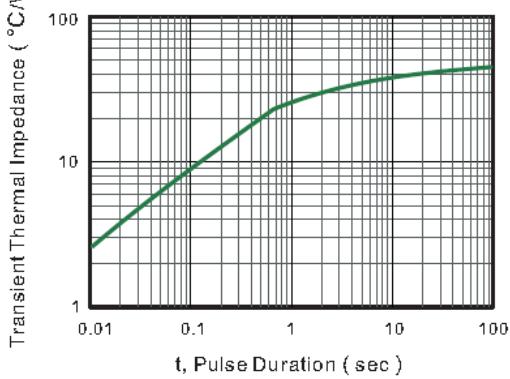
**Fig.3 Typical Forward Characteristic**



**Fig.4 Maximum Non-Repetitive Peak Forward Surge Current**



**Fig.5- Typical Transient Thermal Impedance**



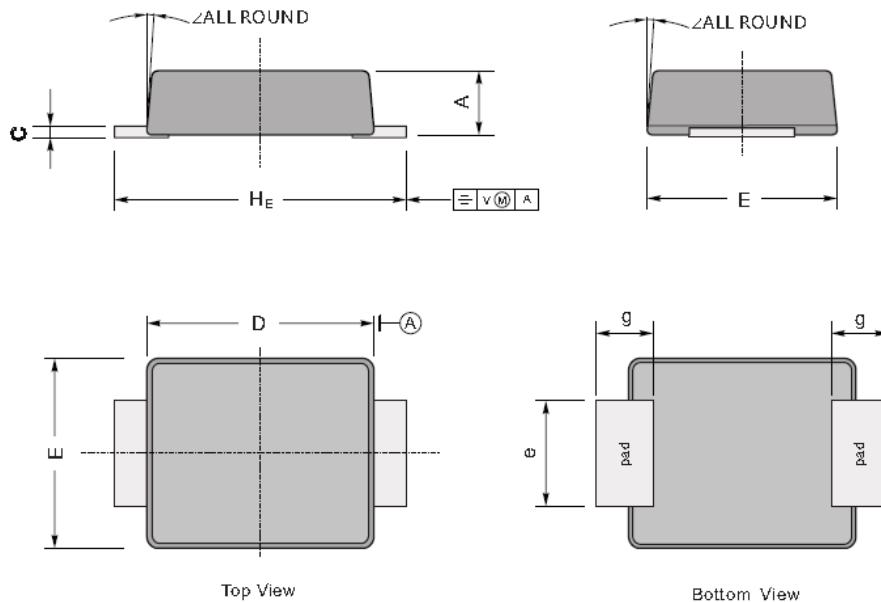
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## PACKAGE OUTLINE

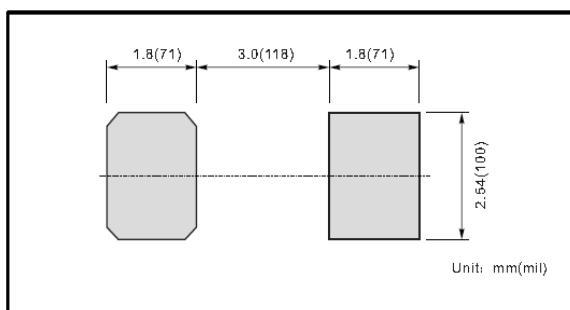
Plastic surface mounted package; 2 leads

**SMBF**



UNIT		A	C	D	E	H <sub>E</sub>	e	g	∠
mm	max	1.3	0.26	4.4	3.7	5.5	2.2	1.0	9°
	min	1.1	0.18	4.2	3.5	5.1	1.9		
mil	max	51	10	173	146	216	86	40	9°
	min	43	7	165	138	200	75		

The recommended mounting pad size



Marking

Type number	Marking code
SS32BF	S32B
SS34BF	S34B
SS36BF	S36B
SS38BF	S38B
SS310BF	S310B
SS312BF	S312B
SS515BF	S315B
SS520BF	S320B

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