



# SS54BF THRU SS520BF

## Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 40 to 200V  
Forward Current - 5.0A

### FEATURES

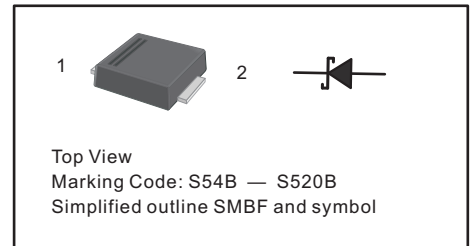
- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

### MECHANICAL DATA

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

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### 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	SS54BF	SS56BF	SS58BF	SS510BF	SS5150BF	SS520BF	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	40	60	80	100	150	200	V
Maximum RMS voltage	$V_{RMS}$	28	42	56	70	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	40	60	80	100	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	5.0						A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	150						A
Max Instantaneous Forward Voltage at 5 A	$V_F$	0.55	0.70	0.85	0.95			V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 100^\circ\text{C}$	$I_R$	1.0 50						mA
Typical Thermal Resistance <sup>1)</sup>	$R_{\theta JA}$	45						$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_j$	-55 ~ +125						$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 ~ +150						$^\circ\text{C}$

1) P.C.B. mounted with 0.5 X 0.5" (12.7 X 12.7 mm) copper pad areas.



# SS54BF THRU SS520BF

## Surface Mount Schottky Barrier Rectifier

### Characteristic Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1 Forward Current Derating Curve

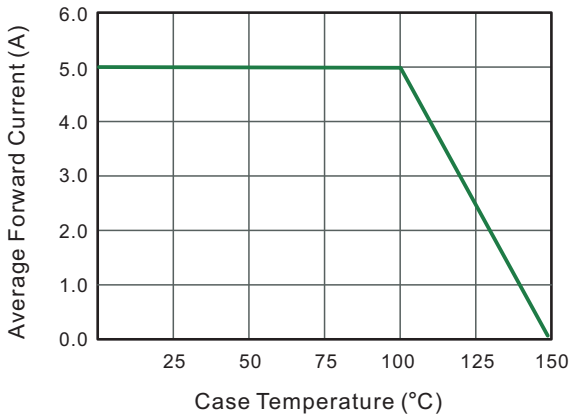


Fig.2 Typical Reverse Characteristics

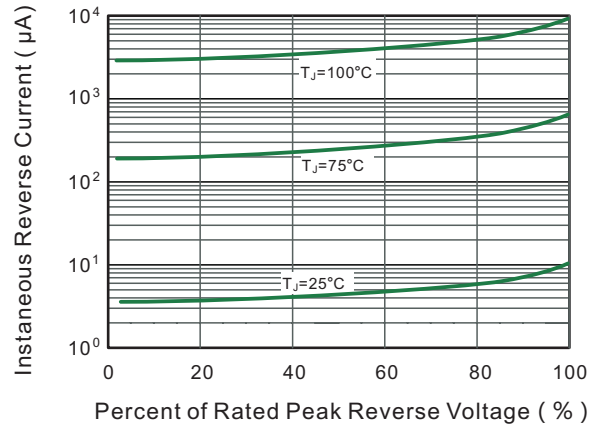


Fig.3 Typical Forward Characteristic

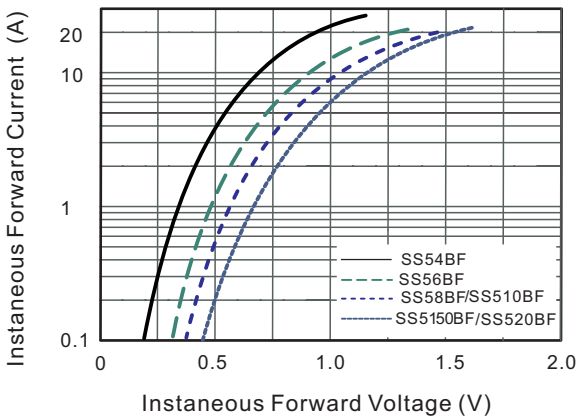


Fig.4 Typical Junction Capacitance

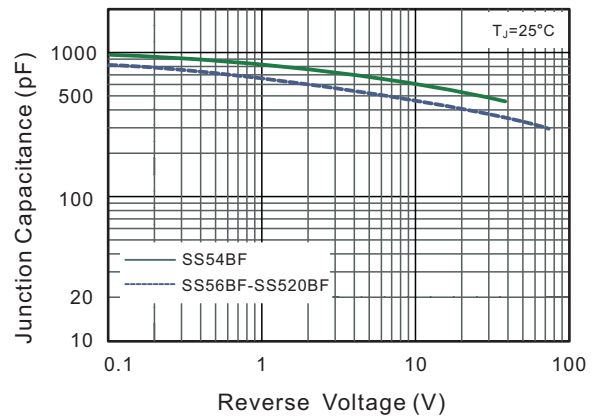


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

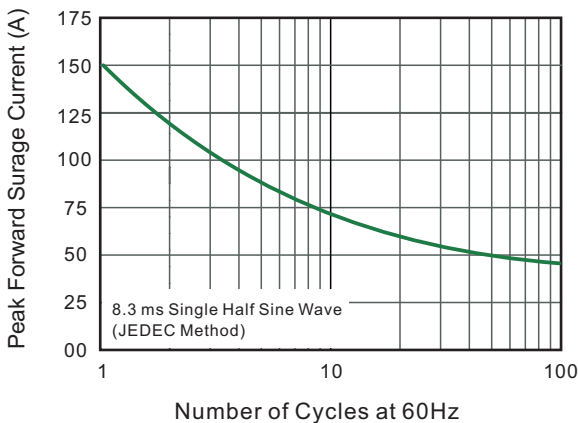
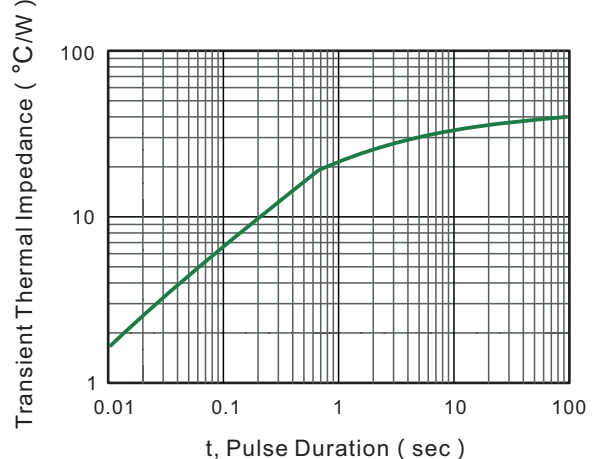


Fig.6- Typical Transient Thermal Impedance





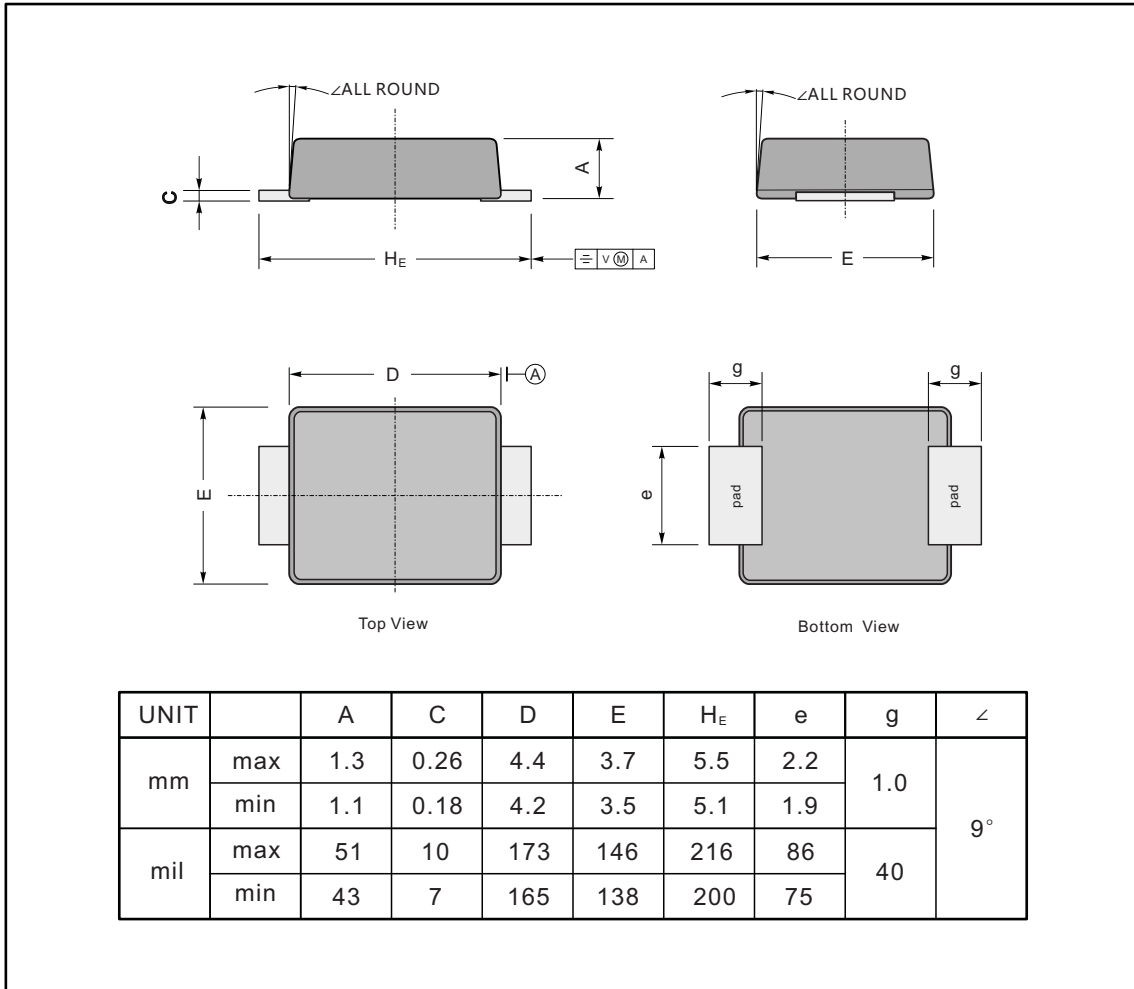
# SS54BF THRU SS520BF

## Surface Mount Schottky Barrier Rectifier

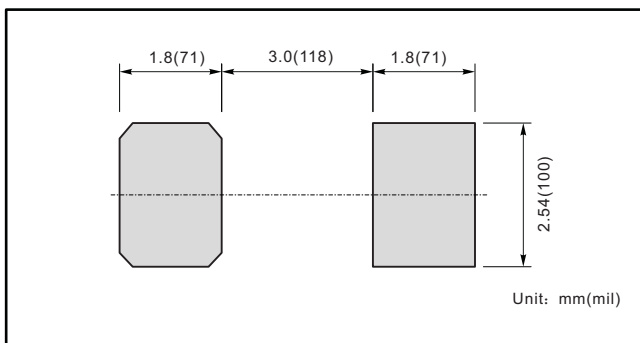
### PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SMBF



### The recommended mounting pad size



### Marking

Type number	Marking code
SS54BF	S54B
SS56BF	S56B
SS58BF	S58B
SS510BF	S510B
SS5150BF	S5150B
SS520BF	S520B