



SS52BF THRU SS520BF

Surface Mount Schottky Barrier Rectifier

Reverse Voltage -20V to 200V

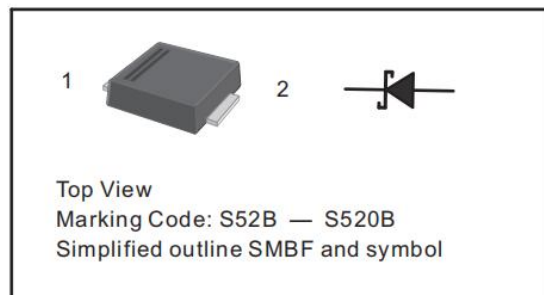
Forward Current -5.0A

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

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	Symbol	SS52 BF	SS54 BF	SS56 BF	SS58 BF	SS510 BF	SS512 BF	SS515 BF	SS520 BF	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	40	60	80	100	120	150	200	V
Maximum RMS Voltage	V _{RMS}	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V _{DC}	20	40	60	80	100	120	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}	120								A
Peak Forward Surge Current,1.0ms Single Half Sine-wave Superimposed On Rated Load(JEDEC method)	I _{FSM}	240								A
I²t Rating for fusing (3ms≤8.3ms)	I²t	59.7								A²S
Max Instantaneous Forward Voltage at 5A	V _F	0.55		0.70	0.85		0.95			V
Maximum DC Reverse Current T _a = 25°C at Rated DC Reverse Voltage T _a = 100°C	I _R	1.0								mA
		50								
Typical Junction Capacitance ⁽¹⁾	C _j	270		220	160		100		80	pF
Typical Thermal Resistance ⁽²⁾	R _{θJA}	42								°C/W
	R _{θJC}	10								
	R _{θJL}	15								
Operating Junction Temperature Range	T _j	-55~+125								°C
Storage Temperature Range	T _{stg}	-55~+150								°C

(1) Measured at 1MHz and applied reverse voltage of 4V D.C

(2) P.C.B. mounted with 1.5"x1.5" (3.81x3.81cm) copper pad areas



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Typical Characteristics

Fig.1 Forward Current Derating Curve

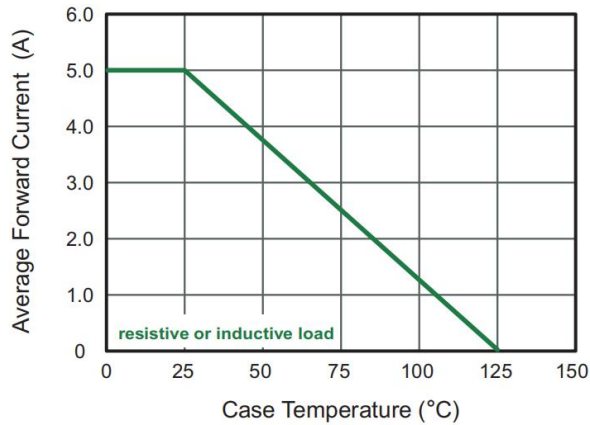


Fig.2 Typical Reverse Characteristics

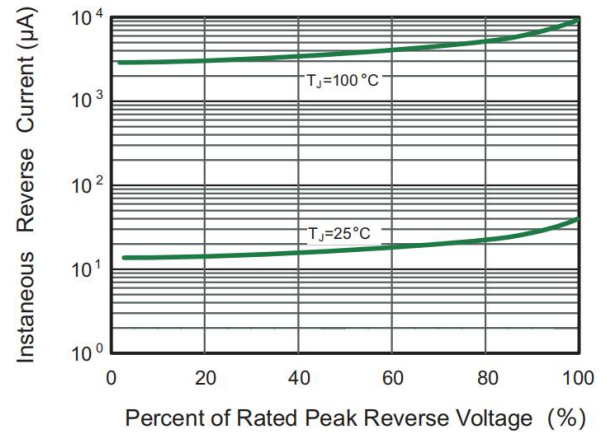


Fig.3 Typical Forward Characteristic

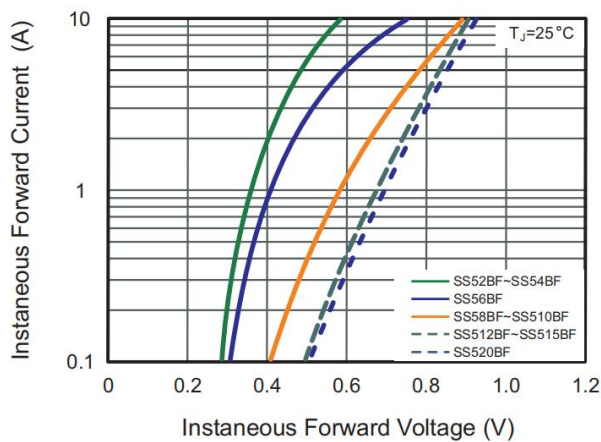


Fig.4 Typical Junction Capacitance

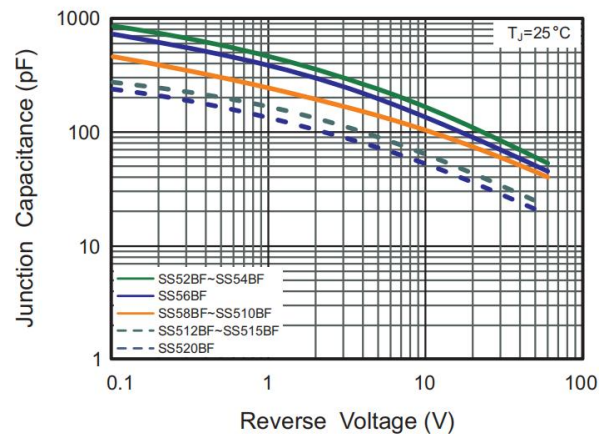
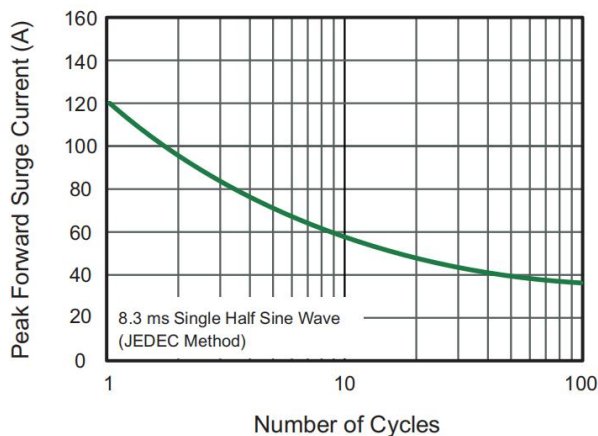


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



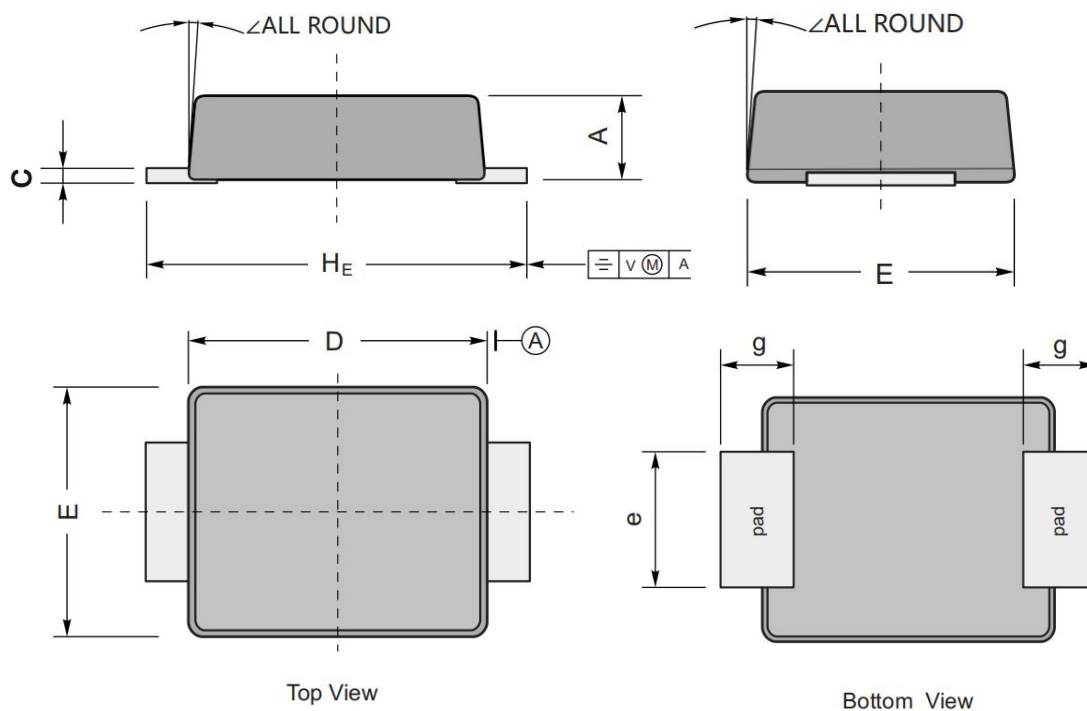


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Package Information

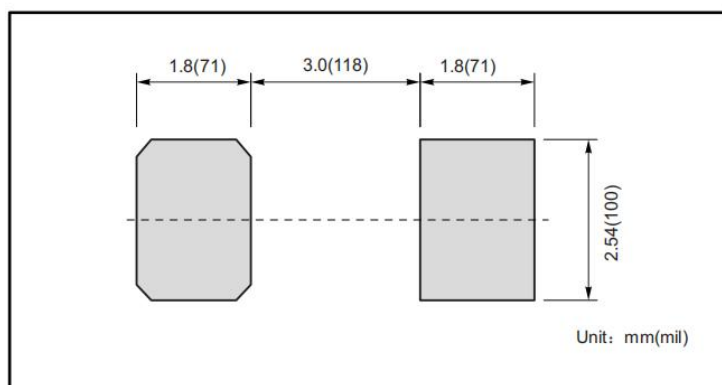
SMBF

Dimensions in mm



UNIT		A	C	D	E	H _E	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	
	min	43	7	165	138	200	75		

The recommended mounting pad size



Marking

Type number	Marking code
SS52BF	S52B
SS54BF	S54B
SS56BF	S56B
SS58BF	S58B
SS510BF	S510B
SS512BF	S512B
SS515BF	S515B
SS520BF	S520B



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