

Descriptions

This is Surface Mount Schottky Barrier Rectifier, Reverse Voltage: 20 to 200V, Forward Current: 5.0A, SMBF thin package.

Features

- Low power loss
- High efficiency
- High forward surge current capability
- For use in low voltage
- High frequency inverters, and polarity protection applications
- For surface mounted applications
- Halogen free product.

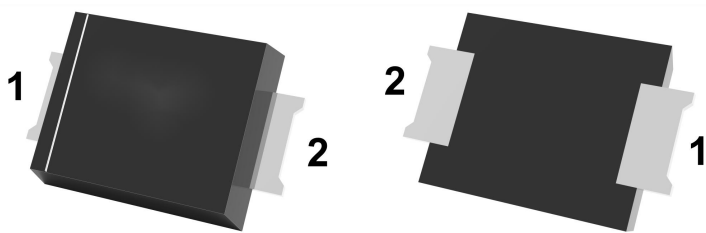
Applications

General purpose

Equivalent Circuit

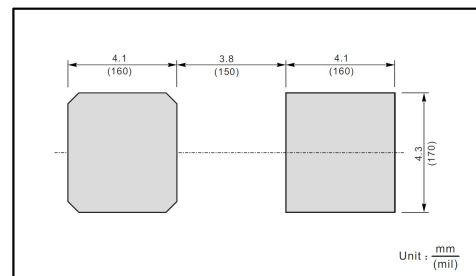


Pinning



PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size



Marking

See Marking Instructions

Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating								Unit
		SS52BF	SS54BF	SS56BF	SS58BF	SS510BF	SS512BF	SS515BF	SS520BF	
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
Typical Junction Capacitance ¹⁾	C _j	800		500						pF
Typical Thermal Resistance ²⁾	R _{θJA}	45								°C/W
Operating Junction Temperature Range	T _j	-55 ~ +150								°C
Storage Temperature Range	T _{stg}	-55 ~ +150								°C

Note:

- 1) Measured at 1MHz and applied reverse voltage of 4 V D.C.
- 2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Electrical Characteristics(Ta=25°C)

Parameter	Symbol	Test condition	Rating								Unit
			SS52BF	SS54BF	SS56BF	SS58BF	SS510BF	SS512BF	SS515BF	SS520BF	
Max Instantaneous Forward Voltage	V _F	I _F =5.0A	0.55		0.70		0.85				V
Maximum DC Reverse Current at Rated DC Reverse Voltage	I _R	T _a =25°C	1.0								mA
		T _a =100°C	50								

Electrical Characteristic Curve

Fig.1 Forward Current Derating Curve

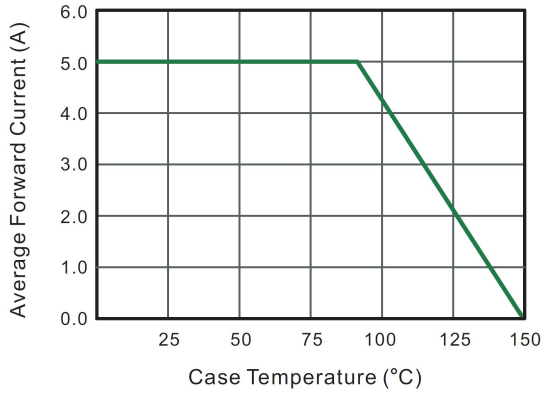


Fig.2 Typical Reverse Characteristics

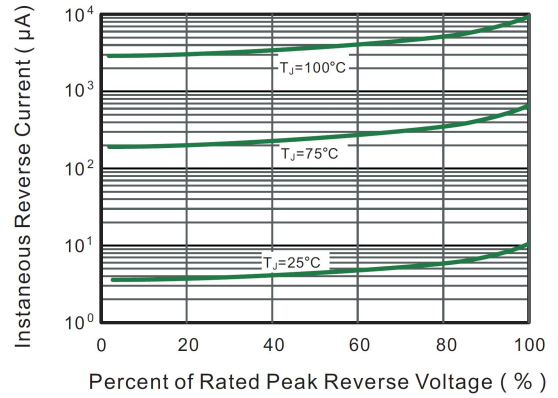


Fig.3 Typical Forward Characteristic

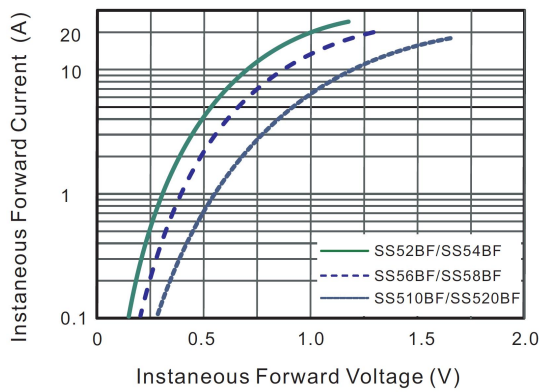


Fig.4 Typical Junction Capacitance

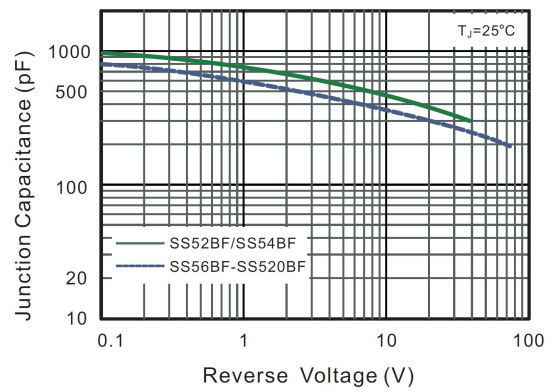


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

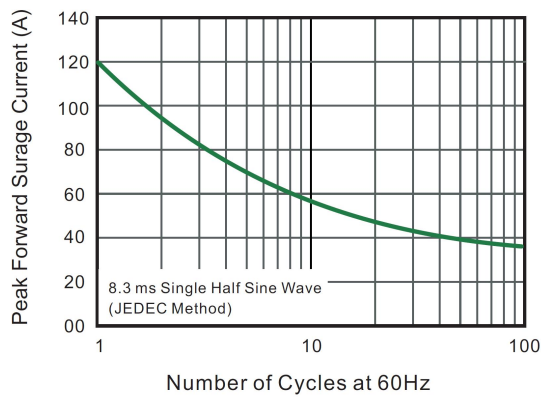
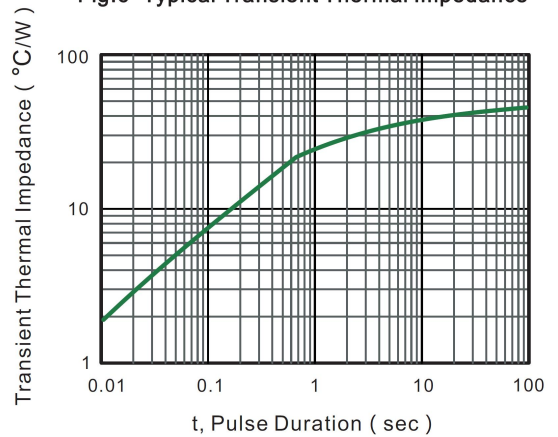
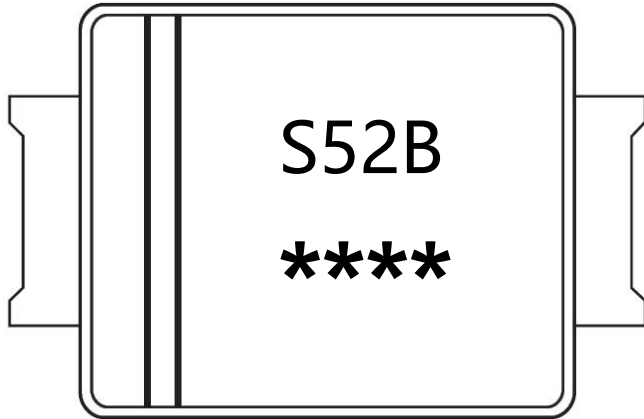


Fig.6- Typical Transient Thermal Impedance



Marking Instructions



Marking

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

Note:

S52B: Product Type Code

****: Lot No. Code, The 1st * means:YM Code, The last 3 * means:little Lot No Code

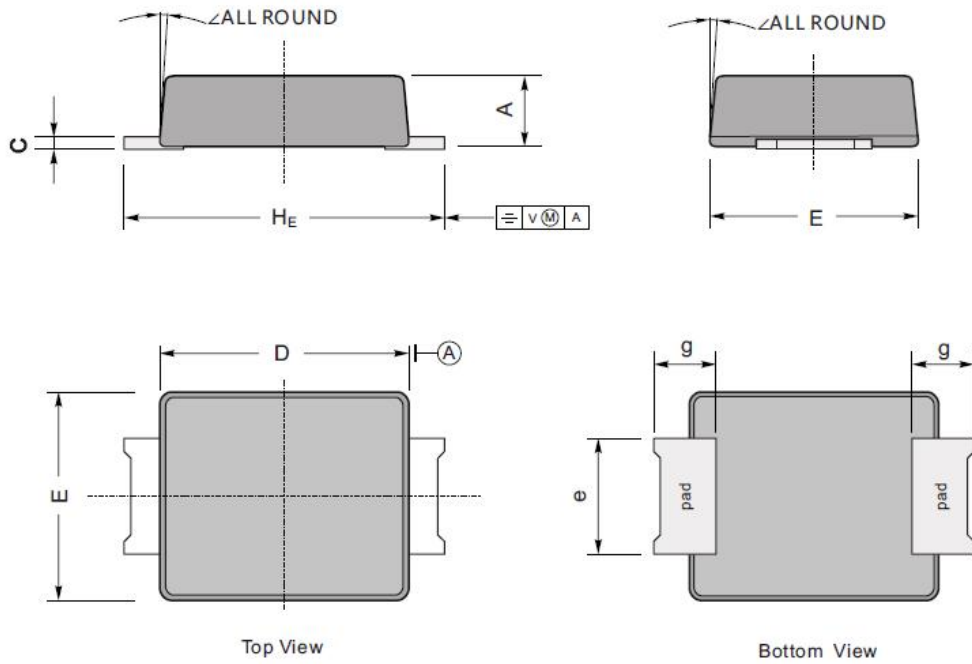
Packaging SPEC

REEL

Package Type	Units					Dimension(unit: mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SMBF	5000	2	10000	7	70000	13" ×12	336X336X40	380X335X366

Package Dimensions

SMBF



UNIT		A	C	D	E	H _E	e	g	\angle
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		