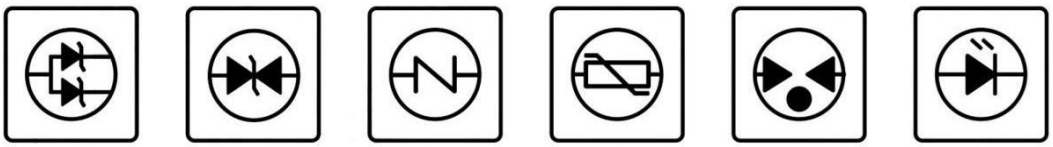
MSKSEMI 美森科
SEMICONDUCTOR



SS52BF-MS THRU SS520BF-MS

Product specification

SS52BF-MS THRU SS520BF-MS

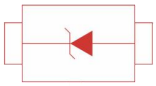
Features

- 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

Reference News

SMBF	Schematic Diagram
	

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

Marking

SS52BF-MS	SS54BF-MS	SS56BF-MS	SS58BF-MS
S52B	S54B	S56B	S58B
SS510BF-MS	**SS512BF-MS**	**SS515BF-MS**	**SS520BF-MS**
S510B	S512B	S515B	S520B

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	SS52BF-MS	SS54BF-MS	SS56BF-MS	SS58BF-MS	SS510BF-MS	SS512BF-MS	SS515BF-MS	SS520BF-MS	Units
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}	150								A
Max Instantaneous Forward Voltage at 5 A	V_F	0.55		0.70		0.85				V
Maximum DC Reverse Current at Rated DC Reverse Voltage T_a = 25℃ / T_a = 100℃	I_R	1.0 50								mA
Typical Junction Capacitance (1)	C_j	800		500						pF
Typical Thermal Resistance (2)	$R_{\theta JA}$	45								℃/W
Operating Junction Temperature Range	T_j	-55 ~ +150								℃
Storage Temperature Range	T_{stg}	-55 ~ +150								℃

(1) Measured at 1 MHz 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.

Fig.1 Forward Current Derating Curve

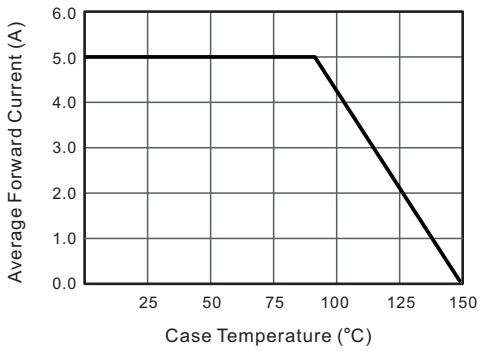


Fig.2 Typical Reverse Characteristics

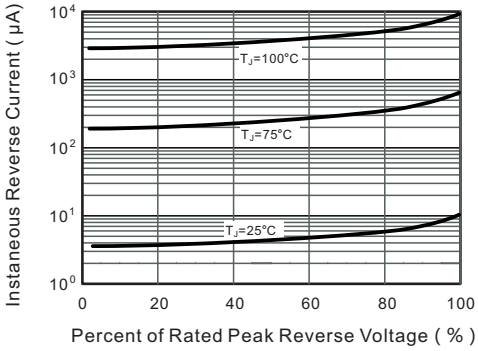


Fig.3 Typical Forward Characteristic

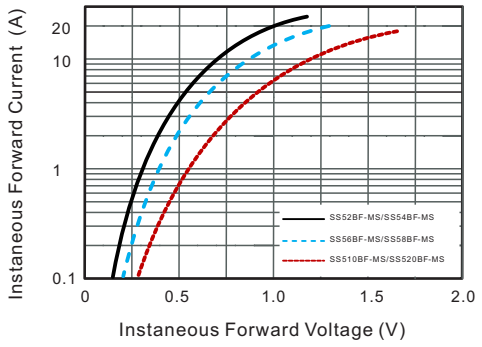


Fig.4 Typical Junction Capacitance

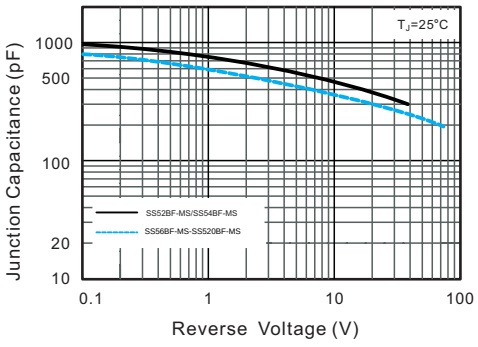


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

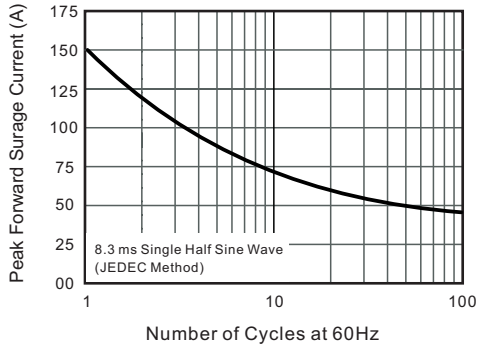
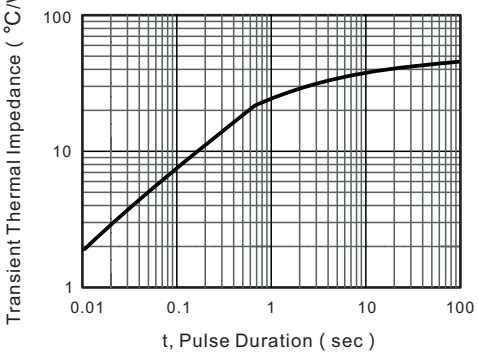
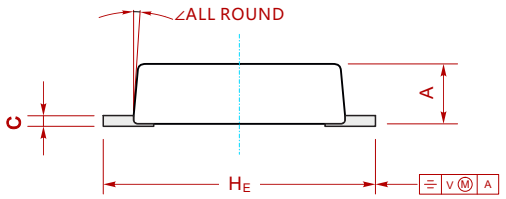
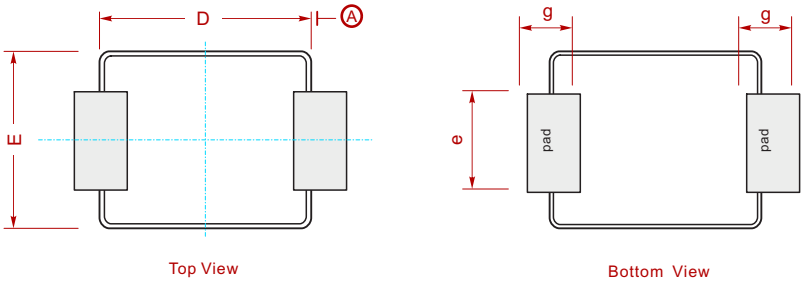


Fig.6- Typical Transient Thermal Impedance



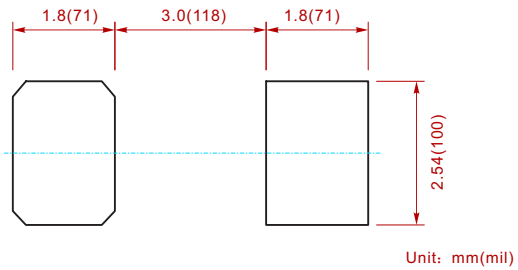
PACKAGEECHANICALDATA





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



Order information

Orderable Device	Package	Packing Option
SS52BF-MS THRU SS520BF-MS	SMBF	5000PCS

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