

Surface Mount Schottky Barrier Rectifiers

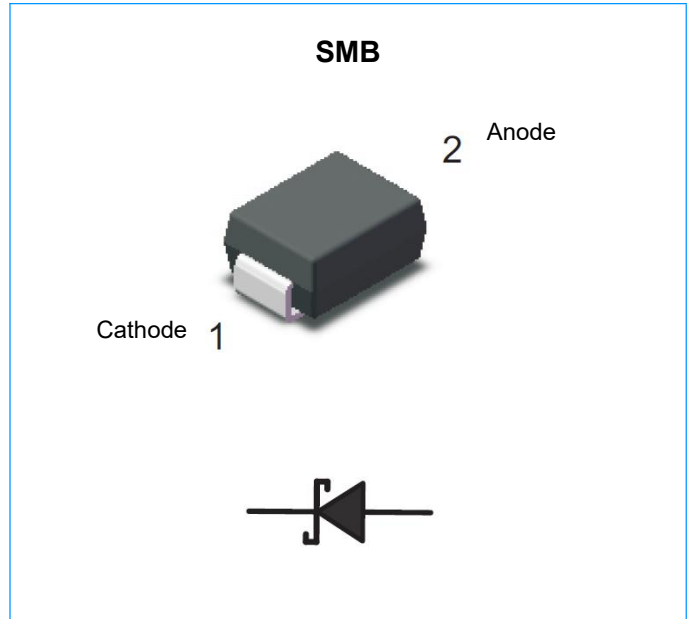
SS52B-SS520B
20 to 200 V
5.0A
SMB

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: SMB
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 0.1g / 0.0034oz



Absolute Maximum Ratings and Electrical characteristics (T_A=25°C unless otherwise noted)

Parameter		Symbol	SS52B	SS54B	SS56B	SS58B	SS510B	SS512B	SS515B	SS520B	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 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}	100								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	Ta=25℃	I _R	1.0		0.3					mA	
	Ta=100℃		50		25						
Typical Junction Capacitance ⁽¹⁾		C _j	500		300					pF	
Typical Thermal Resistance ⁽²⁾		R _{θJA}	50								℃/W
Operating Junction Temperature Range		T _J	-55 to +150								℃
Storage Temperature Range		T _{STG}	-55 to +150								℃

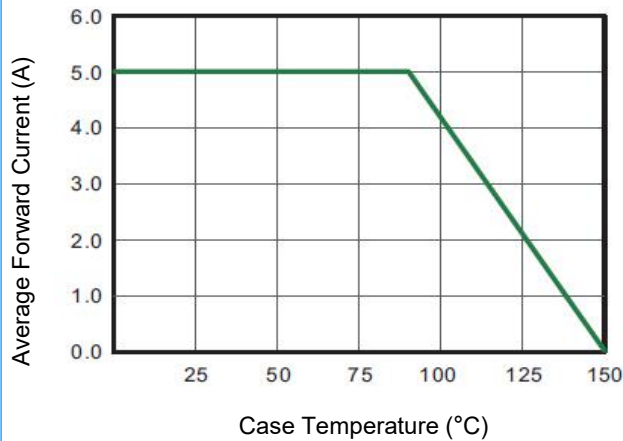
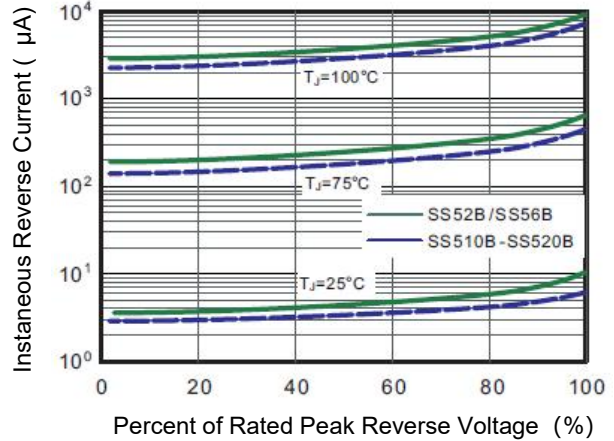
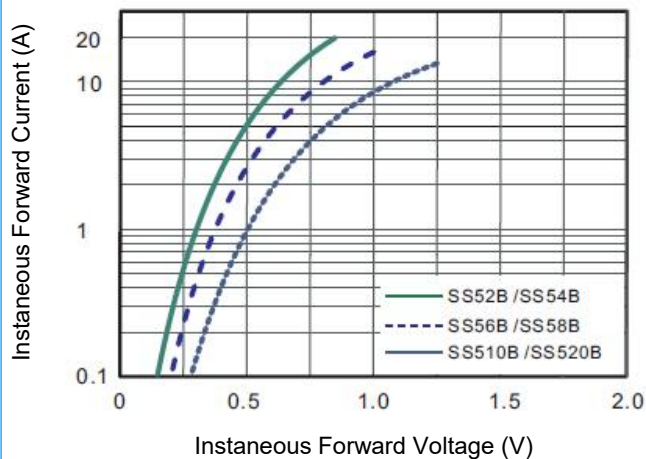
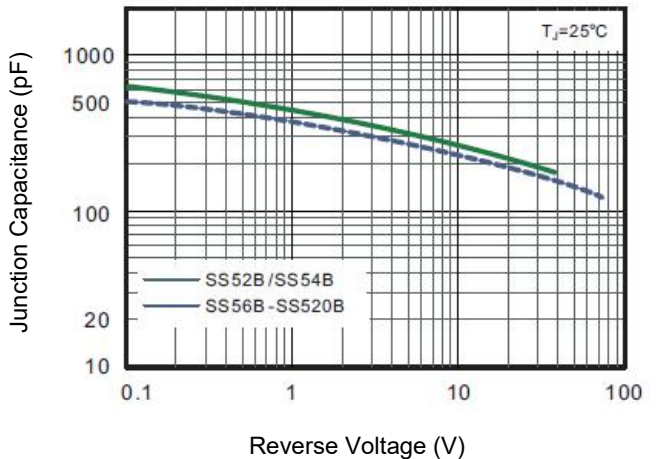
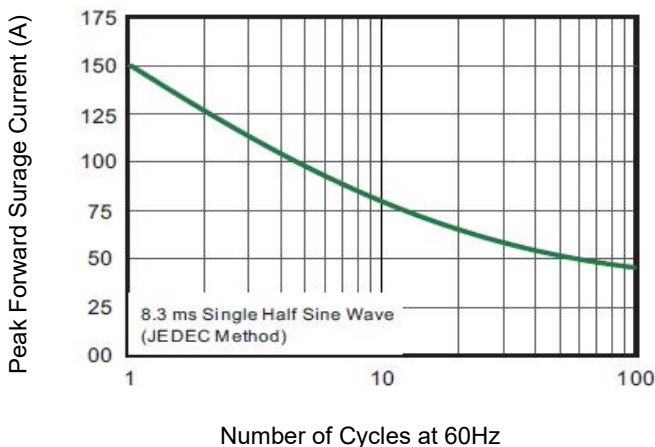
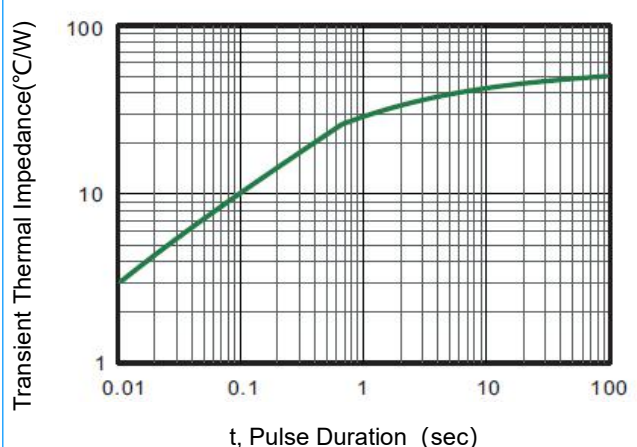
Notes: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C..

2. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

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Rating and Characteristic Curves

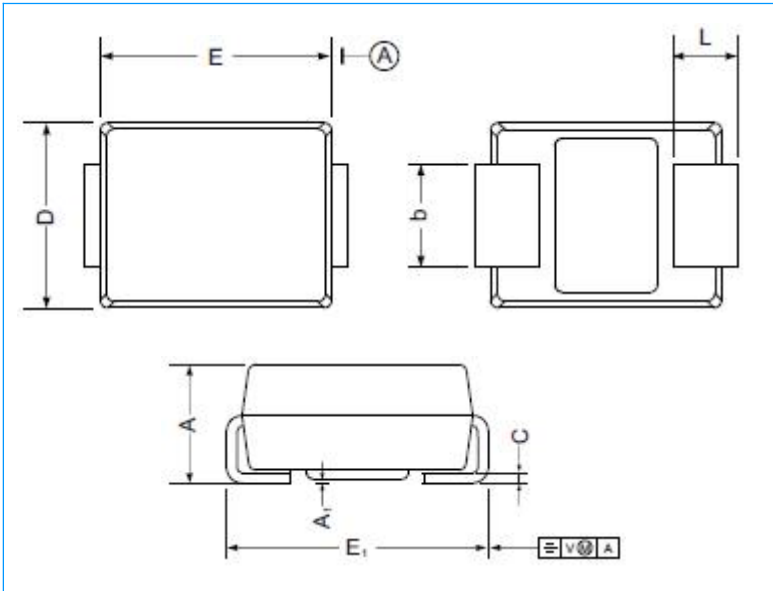
Fig1. Forward Current Derating Curve

Fig2. Typical Reverse Characteristics

Fig3. Typical Forward Characteristics

Fig4. Typical Junction Characteristics

Fig5. Maximum Non-Repetitive Peak Forward Surge Current

Fig6. Typical Transient Thermal Impedance


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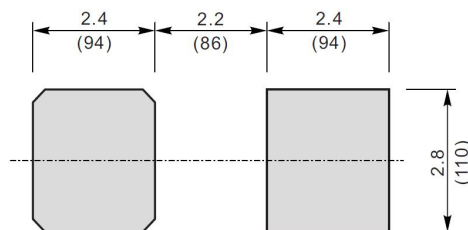
SMB Package Outline

Plastic surface mounted package; 2 leads



Symbol	mm		mil	
	min.	max.	min.	max.
A	2.13	2.46	84	97
E	4.06	4.70	160	185
D	3.3	3.94	130	155
E ₁	5.08	5.59	200	220
A ₁	0.05	0.20	2.0	7.9
L	0.8	1.5	32	59
C	0.152	0.305	6	12
b	1.9	2.2	75	87

The Recommended Mounting Pad Size



Unit : $\frac{\text{mm}}{(\text{mil})}$

Marking

Part Number	SS52B	SS54B	SS56B	SS58B	SS510B	SS512B	SS515B	SS520B
Marking	SS52	SS54	SS56	SS58	SS510	SS512	SS515	SS520

Packaging Information

Part Number	Component Package	Quantity
SS52B~SS520B	SMB	3000 PCS