

SS52B THRU SS520B

Schottky Barrier Rectifiers

Reverse Voltage - 20 to 200 V

Forward Current - 5 A

Features

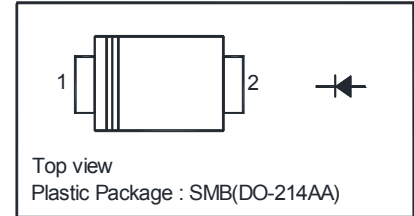
- Plastic package has Underwriters Laboratory Flammability classification 94V-0
- Metal silicon junction with guard ring
- Low forward voltage
- High current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

Mechanical Data

- **Case:** SMB (DO-214AA) molded plastic body
- **Polarity:** color band denotes cathode end

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Maximum Ratings and Electrical Characteristics

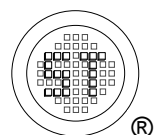
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, resistive or inductive load.

For capacitive load, derate by 20 %.

Parameter	Symbols	SS52B	SS53B	SS54B	SS55B	SS56B	SS58B	SS510B	SS515B	SS520B	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	5									A
Peak Forward Surge Current, 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	150									A
Maximum Forward Voltage at 5 A	V_F	0.55		0.7		0.85		0.9			V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$	I_R	1 50									mA
Typical Junction Capacitance ¹⁾	C_J	500			300					pF	
Typical Thermal Resistance, to Ambient ²⁾	$R_{\theta JA}$	50									°C/W
Junction Temperature Range	T_j	- 55 to + 125			- 55 to + 150						°C
Storage Temperature Range	T_{stg}	- 55 to + 150									°C

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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Electrical Characteristic Curves

Fig.1 Forward Current Derating Curve

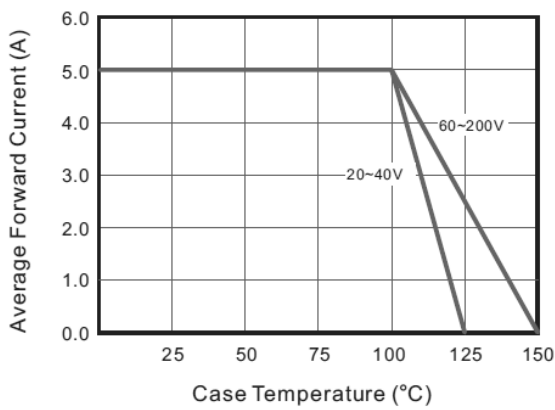


Fig.2 Typical Reverse Characteristics

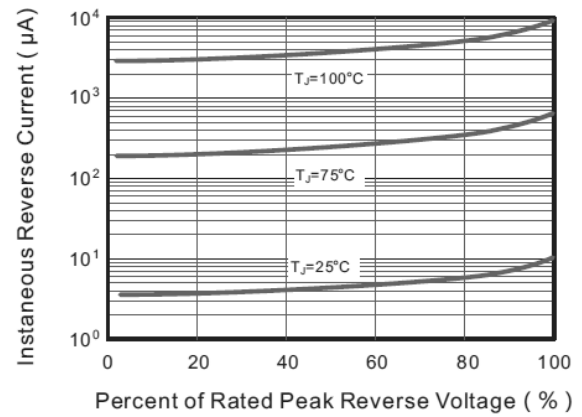


Fig.3 Typical Forward Characteristic

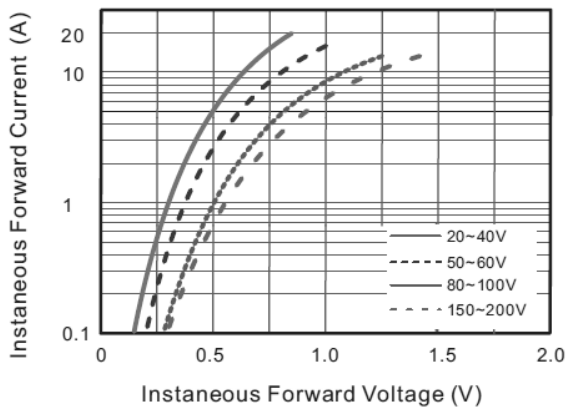


Fig.4 Typical Junction Capacitance

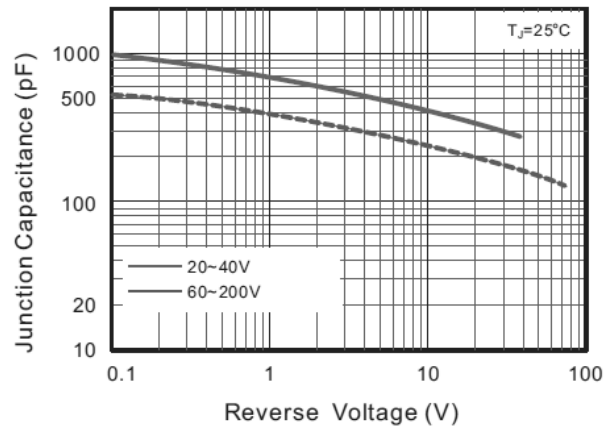


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

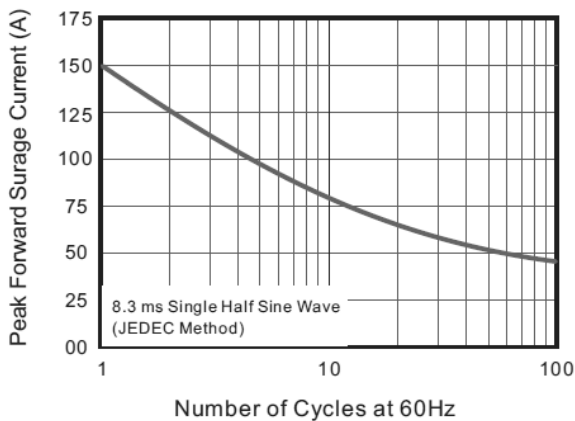
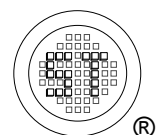
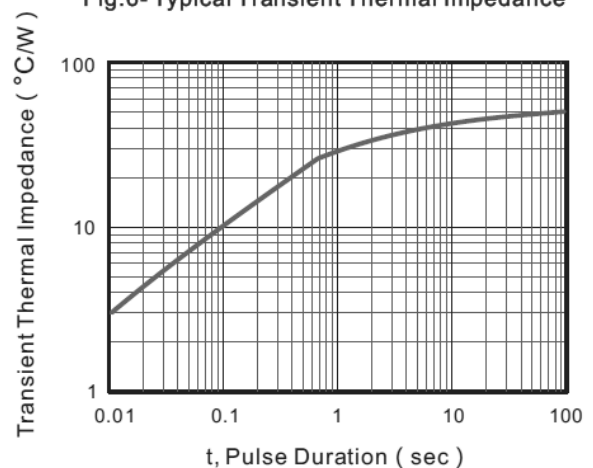


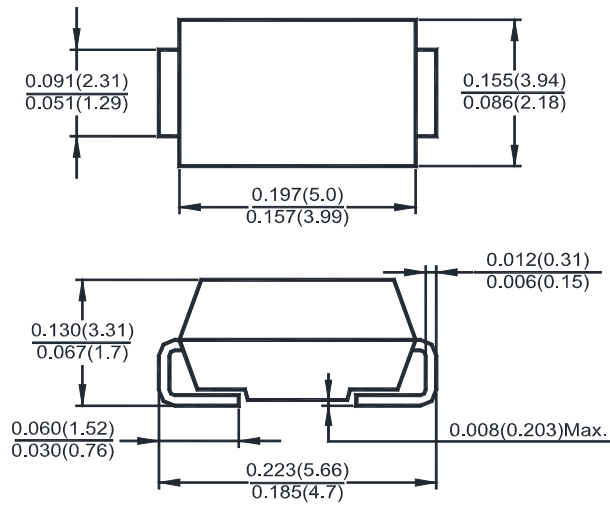
Fig.6- Typical Transient Thermal Impedance



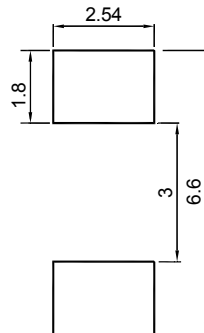
SS52B THRU SS520B

Package Outline Dimensions in inches (millimeters)

SMB(DO-214AA)



Recommended Soldering Footprint



Marking information

" SS5**B " = Part No.

Type	Marking	Type	Marking	Type	Marking	Type	Marking	Type	Marking
SS52B	SS52B	SS53B	SS53B	SS54B	SS54B	SS55B	SS55B	SS56B	SS56B
SS58B	SS58B	SS510B	SS510B	SS515B	SS515B	SS520B	SS520B		

" III " = Cathode line

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