

# SS52B THRU SS520B

## SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 200 V

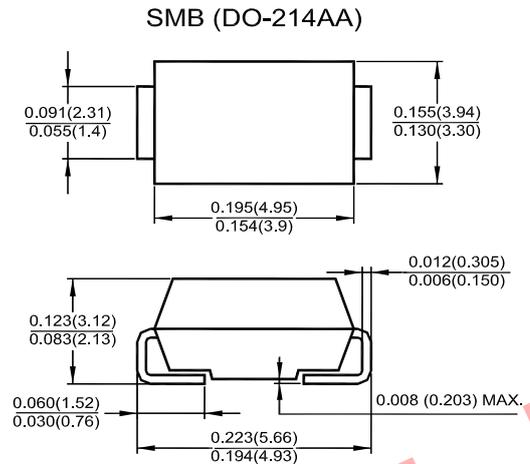
Forward Current - 5 A

### 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



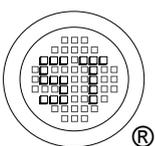
Dimensions in inches and (millimeters)

### 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	$I_R$	1									mA
		50									
Typical Thermal Resistance, to Ambient <sup>1)</sup>	$R_{\theta JA}$	60									°C/W
Typical Thermal Resistance, to Terminal <sup>1)</sup>	$R_{\theta JL}$	20									°C/W
Junction Temperature Range	$T_j$	- 55 to + 125			- 55 to + 150						°C
Storage Temperature Range	$T_{stg}$	- 55 to + 150									°C

<sup>1)</sup> Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16 mm) copper pad areas.



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FIG.1: FORWARD CURRENT DERATING CURVE

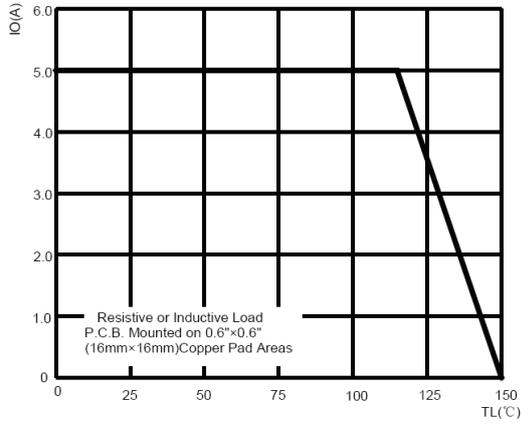


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

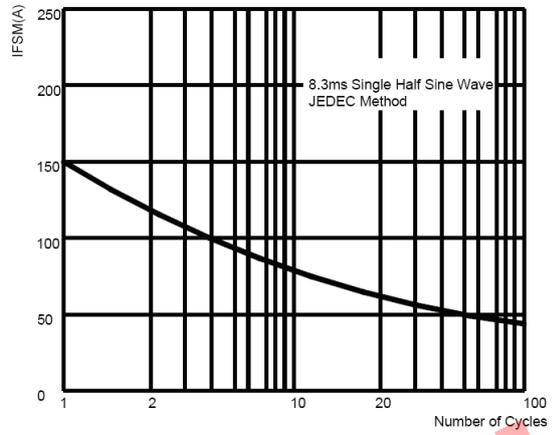


FIG.3: TYPICAL FORWARD CHARACTERISTICS

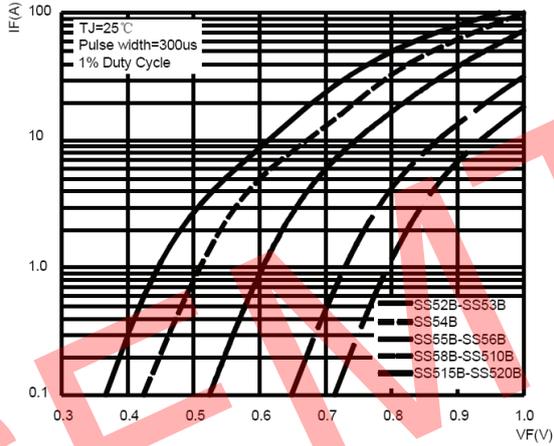
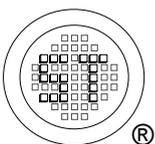
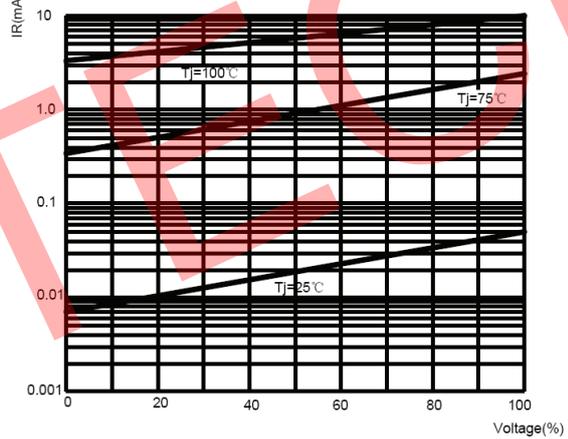


FIG.4: TYPICAL REVERSE CHARACTERISTICS



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