

SS52B THRU SS510B

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER
 VOLTAGE RANGE 20 to 100 Volts CURRENT 5.0 Ampere

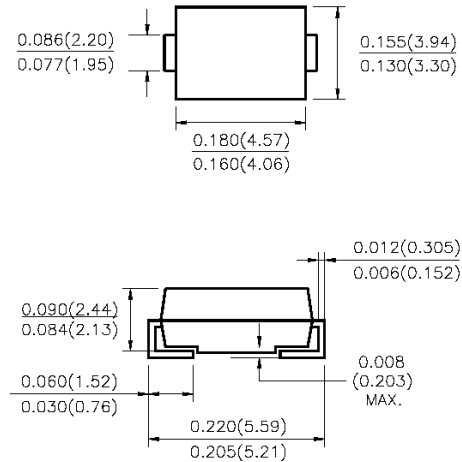
FEATURES

- ◆ Low profile surface mount package
- ◆ Built-in strain relief
- ◆ High switching speed
- ◆ Low voltage drop, high efficiency
- ◆ For use in low voltage high frequency inverters
- ◆ Free willing, and polarity protection applications
- ◆ Guarding for over voltage protection

Mechanical Data

- ◆ Case: Transfer molded plastic
- ◆ Epoxy: UL 94V-0 rate flame retardant
- ◆ Lead: Solder plated, solderable per MIL-STD-750 method 2026
- ◆ Polarity: Color band denotes cathode end

DO-214AA (SMB)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%

PARAMETER	SYMBOL	SS 52B	SS 53B	SS 54B	SS 55B	SS 56B	SS 58B	SS 59B	SS 510B	UNIT
Maximum Repetitive Peak Reverse Voltage	VRRM	20	30	40	50	60	80	90	100	Volts
Maximum RMS Voltage	VRMS	14	21	28	35	42	56	63	70	Volts
Maximum DC Blocking Voltage	VDC	20	30	40	50	60	80	90	100	Volts
Maximum Average Forward Rectified Current	I(AV)	5.0								Amps
Peak Forward Surge Current 8.3mS single half sine-wave superimposed on rated load (JEDEC method)	IFSM	120								Amps
Maximum Instantaneous Forward Voltage @ 5.0A(Note 1)	VF	0.55			0.75		0.85			Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	TA = 25°C	0.5								uA
	TA = 100°C	20.0				10.0				
Typical Thermal Resistance (Note 2)	RθJA	55								pF
	RθJL	12								
Operating Junction Temperature	TJ	-55 to +125								°C/W
Storage Temperature Range	TSTG	-55 to +150								°C

Note: 1. Pulse test: 300µs pulse width, 1% duty cycle

2. PCB mounted with 0.55"×0.55" (14mm×14mm) copper pads

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RATING AND CHARACTERISTIC CURVES SS52B THRU SS510B

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

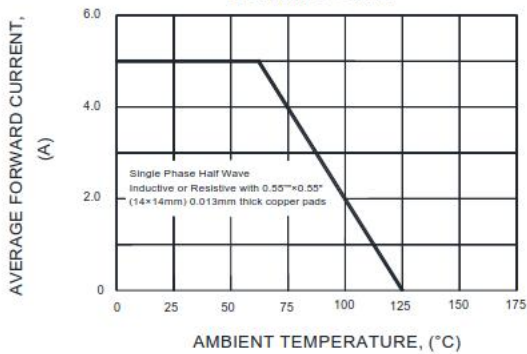


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

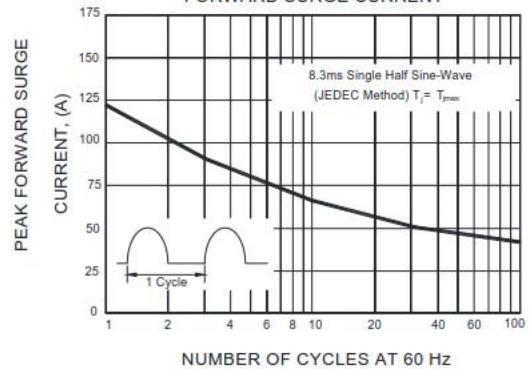


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

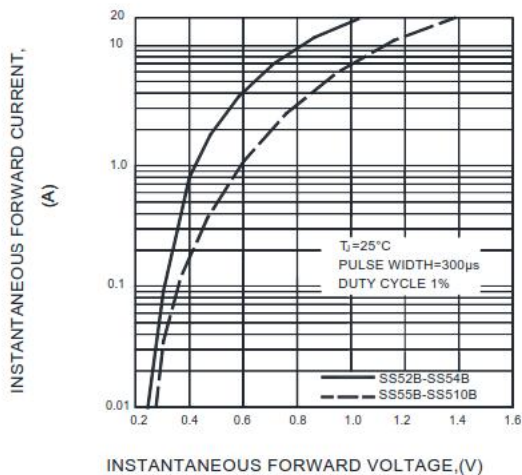


FIG.4-TYPICAL REVERSE CHARACTERISTICS

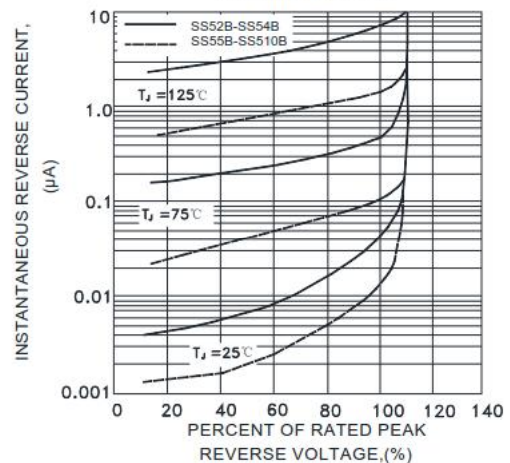
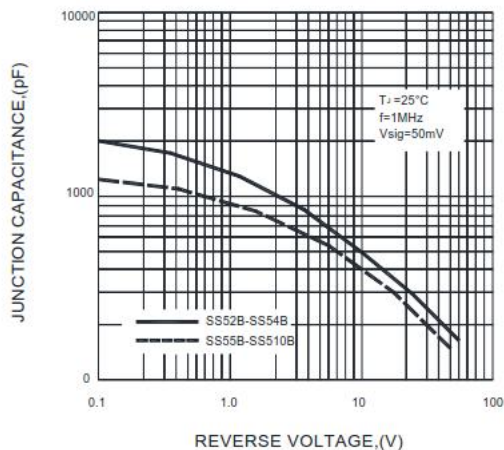


FIG.5-TYPICAL JUNCTION CAPACITANCE



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.