

**FEATURES**

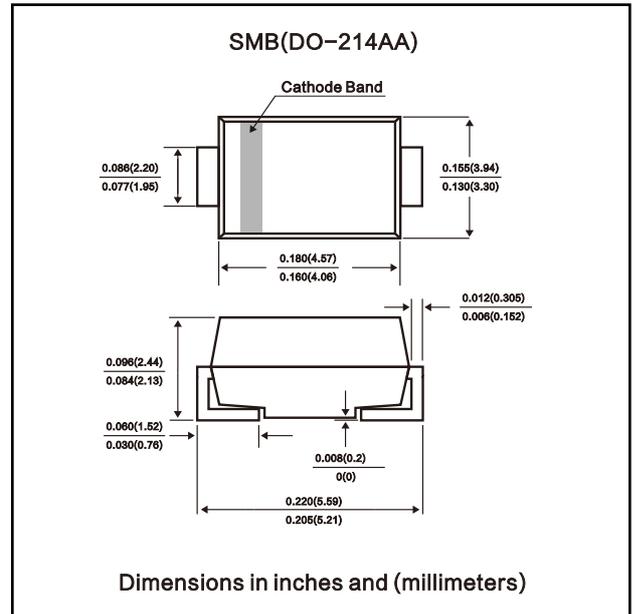
- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

**MECHANICAL DATA**

Case SMB/DO-214AA Molded Plastic

Polarity: Color band denotes cathode

Weight: 0.007 ounces, 0.21 grams



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating at 25°C ambient temperature unless otherwise specified.

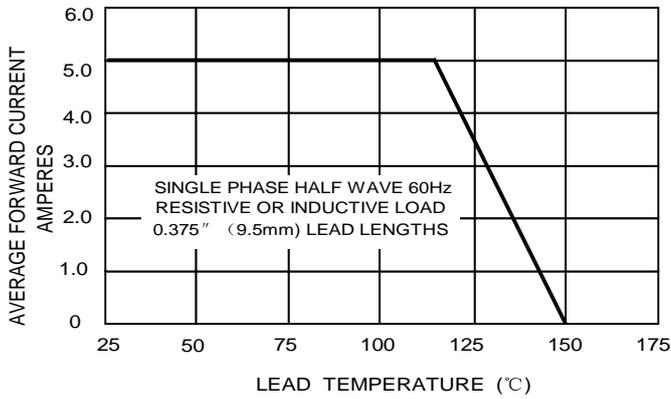
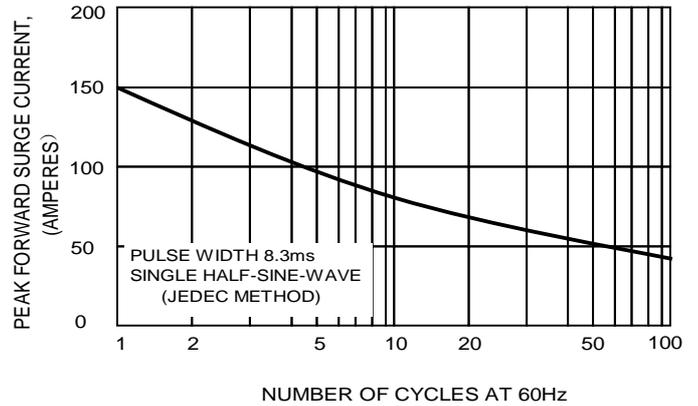
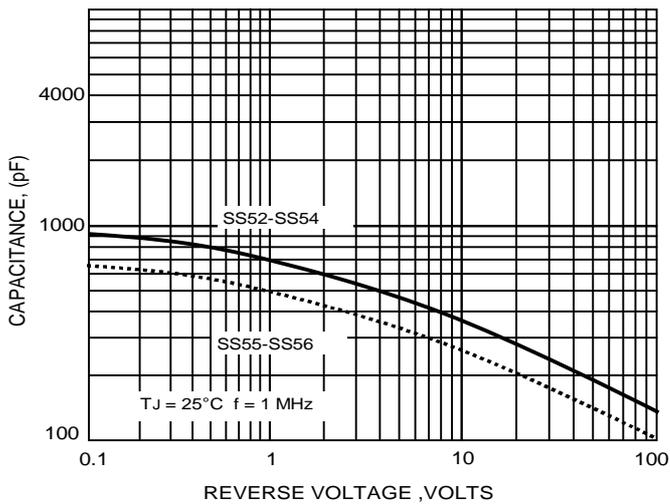
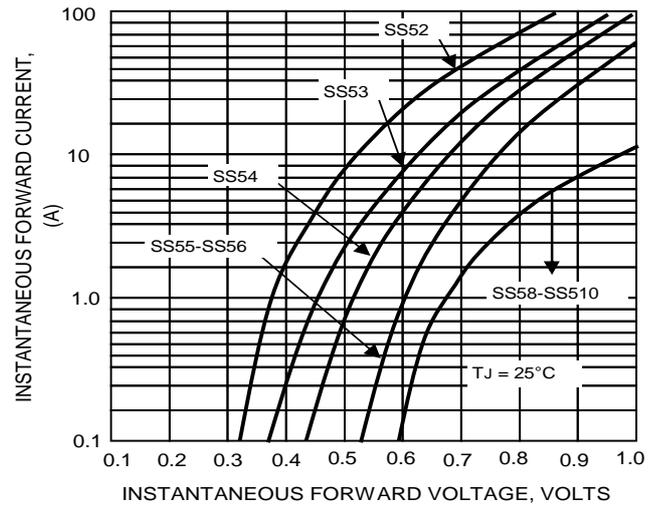
Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	SS52B	SS53B	SS54B	SS55B	SS56B	SS58B	SS510B	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Lengths @T <sub>L</sub> =95 °C	I <sub>(AV)</sub>	5.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I <sub>FSM</sub>	150							A
Maximum Forward Voltage at 5.0A DC	V <sub>F</sub>	0.45	0.55	0.6	0.7		0.85		V
Maximum DC Reverse Current @T <sub>J</sub> =25°C at Rated DC Blocking Voltage @T <sub>J</sub> =100°C	I <sub>R</sub>	1.0 50							mA
Typical Junction Capacitance (Note1)	C <sub>J</sub>	500			350				pF
Typical Thermal Resistance (Note2)	R <sub>JA</sub>	15			10				°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°C

NOTES: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

2. Thermal resistance junction to ambient,

**FIG. 1 FORWARD CURRENT DERATING CURVE**

**FIG. 2 MAXIMUM NON-REPETITIVE SURGE CURRENT**

**FIG.3 TYPICAL JUNCTION CAPACITANCE**

**FIG.4-TYPICAL FORWARD CHARACTERISTICS**

**FIG.2-TYPICAL REVER CHARACTERISTICS**
