

# SS52 THRU SS510

## 5.0 AMPS. SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

**Voltage Range**  
20 to 100 Volts  
**Current**  
5.0 Amperes

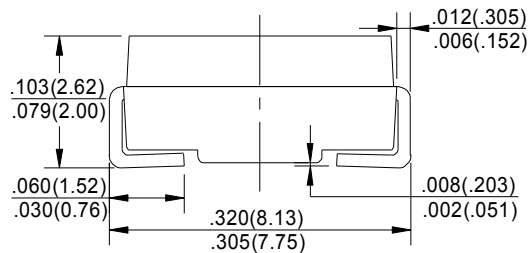
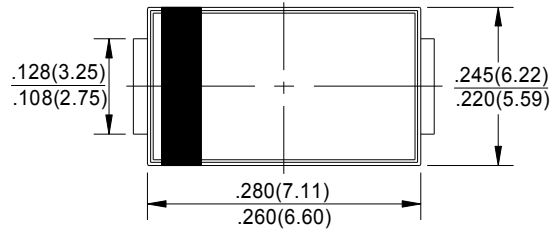
### FEATURES

- 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: Molded Plastic
- Polarity: Color band denotes cathode
- Weight: 0.007 ounces, 0.21 grams

### SMC/DO-214AB



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%

CHARACTERISTICS	SYMBOL	SS52	SS53	SS54	SS55	SS56	SS58	SS510	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>	0.55			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>θJA</sub>	15			10				°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +125							°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,

# RATING AND CHARACTERISTIC CURVES SS52 THRU SS510

FIG. 1 – FORWARD CURRENT DERATING CURVE

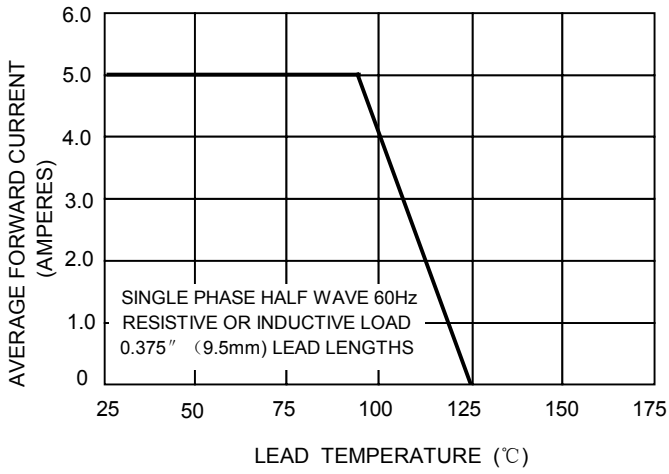


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

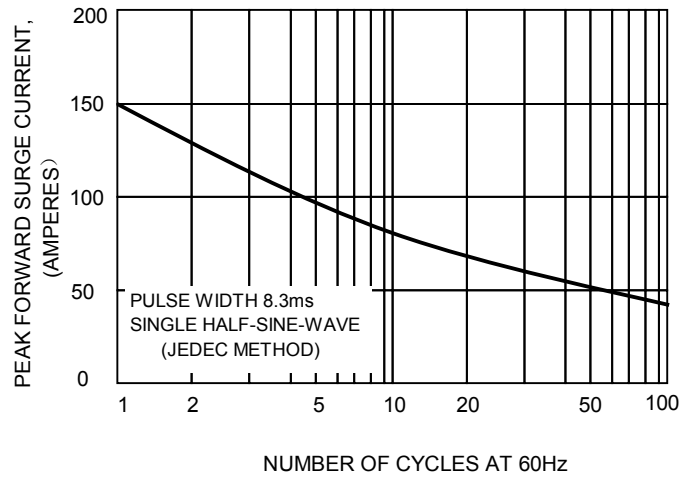


FIG.3 – TYPICAL JUNCTION CAPACITANCE

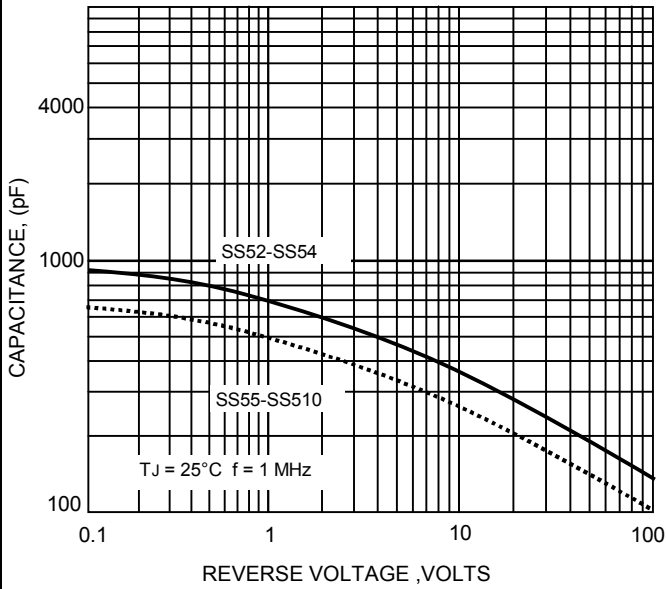


FIG.4-TYPICAL FORWARD CHARACTERISTICS

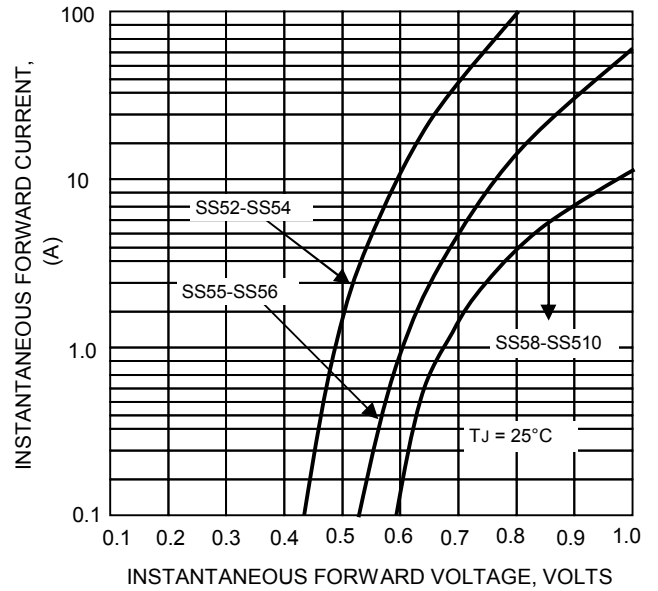


FIG.5-TYPICAL REVER CHARACTERISTICS

