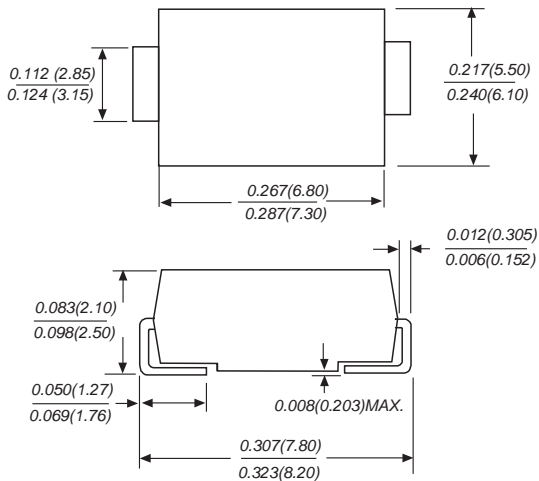


SS52 THRU SS520

SURFACE MOUNT
SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - 20 to 200 Volts
FORWARD CURRENT - 5.0 Amperes

SMC **DO-214AB**



Dimensions in inches and (millimeters)

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: 0.22grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

CHARACTERISTICS	SYMBOL	SS52	SS53	SS54	SS55	SS56	SS58	SS510	SS515	SS520	UNIT
Maximum Recurrent 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 0.375" (9.5mm) Lead Lengths	I <sub(av)< sub=""></sub(av)<>	5.0									A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I _{FSM}	100									A
Maximum Forward Voltage at 5.0A DC	V _F	0.55		0.7		0.85		0.95		V	
Maximum DC Reverse Current @T _J =25°C at Rated DC Blocking Voltage @T _J =100°C	I _R	0.2				1.0				mA	
Typical Junction Capacitance (Note1)	C _J	500				350				pF	
Typical Thermal Resistance (Note2)	R _{θJA}	15				10				°C/W	
Operating Temperature Range	T _J	-55 to +150									°C
Storage Temperature Range	T _{STG}	-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 SS520

FIG. 1 – FORWARD CURRENT DERATING CURVE

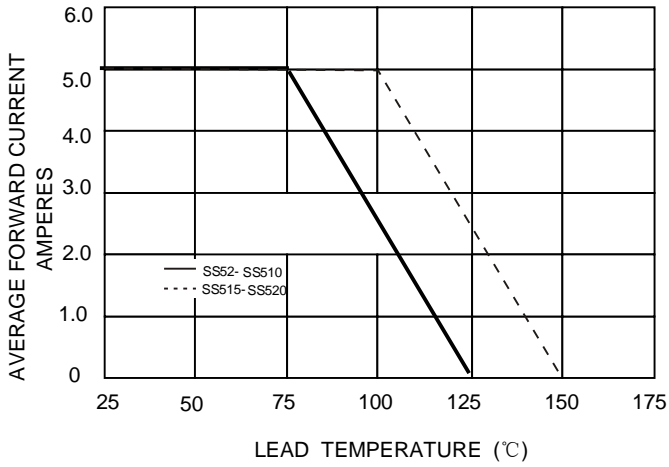


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

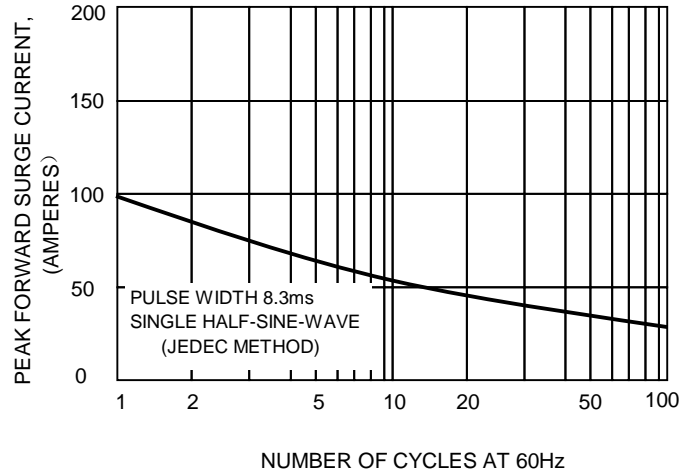


FIG.3 – TYPICAL JUNCTION CAPACITANCE

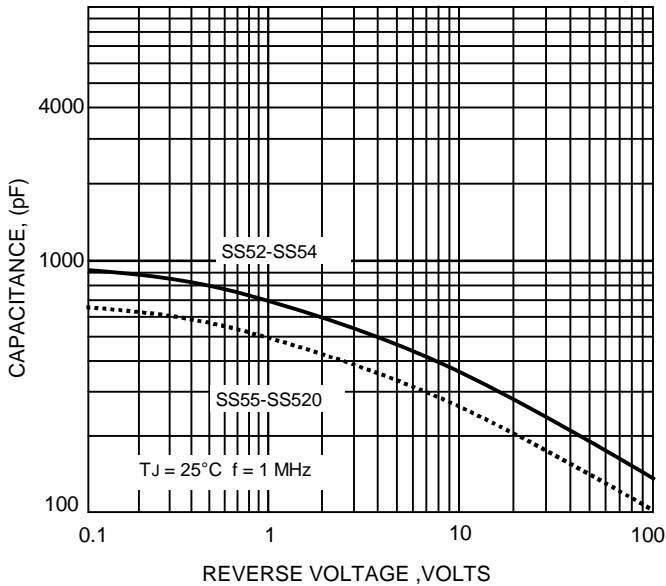


FIG.4-TYPICAL FORWARD CHARACTERISTICS

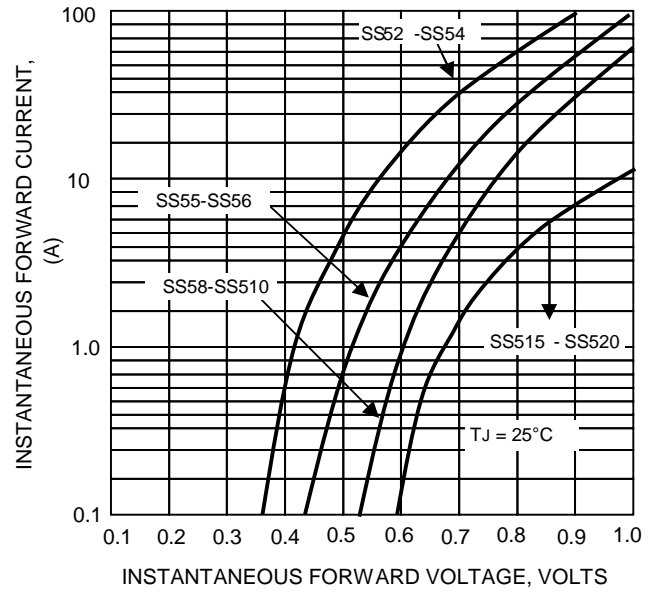


FIG.2-TYPICAL REVER CHARACTERISTICS

