

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 40 Volts

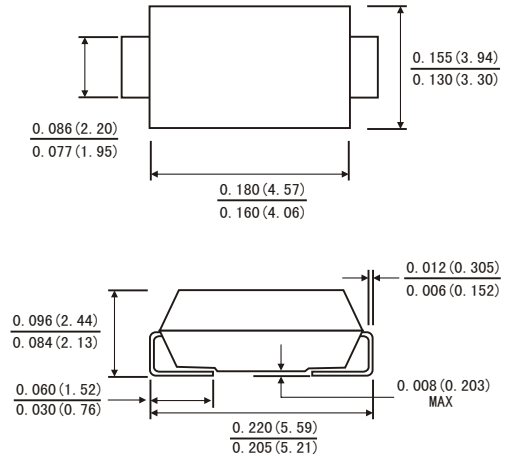
Forward Current - 3.0Amperes

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Built-in strain relief
- Low profile package
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



### SMB(DO-214AA)



Dimensions in inches and (millimeters)

### MECHANICAL DATA

- Case: JEDEC SMB(DO-214AA) molded plastic body
- Terminals: solder plated ,solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.003ounce,0.093 gram

### 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%.)

	Symbols	SS 5820	SS 5821	SS 5822	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	Volts
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	Volts
Maximum average forward rectified current at T <sub>L</sub> =75°C	I(AV)	3.0			Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) at T <sub>L</sub> =75°C	I <sub>FSM</sub>	80.0			Amps
Maximum instantaneous forward voltage at 3.0 A(note 1 )	V <sub>F</sub>	0.475	0.500	0.525	Volts
Maximum instantaneous forward voltage at 9.4 A(note 1 )	V <sub>F</sub>	0.850	0.900	0.950	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1 )	I <sub>R</sub>	1.5			mA
		20.0			
Typical thermal resistance(Note 2)	R <sub>θ JA</sub>	55.0			°C/W
	R <sub>θ JL</sub>	17.0			
Operating junction and storage temperature range	T <sub>J</sub> T <sub>STG</sub>	-65 to +125			°C

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

2.P.C.B. mounted 0.55 X 0.55"(14 X 14mm)copper pad areas

# RATINGS AND CHARACTERISTIC CURVES SS5820 THRU SS5822

FIG.1-FORWARD CURRENT DERATING CURVE

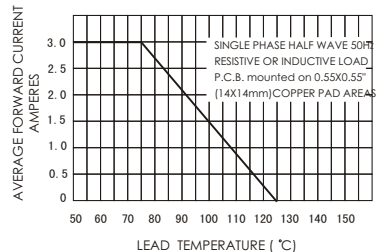


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

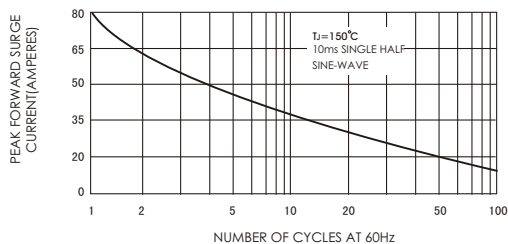


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

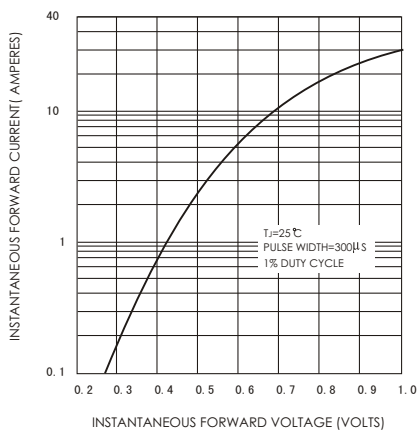


FIG.4-TYPICAL REVERSE CHARACTERISTICS

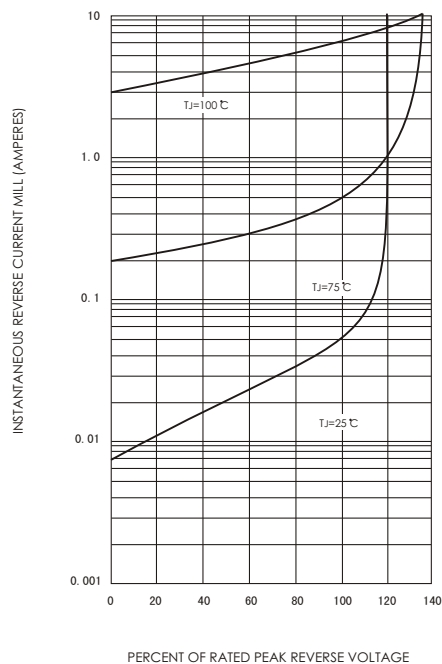


FIG.5-TYPICAL JUNCTION CAPACITANCE

