

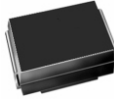
SCHOTTKY BARRIER RECTIFIER

SS5820 THRU SS5822

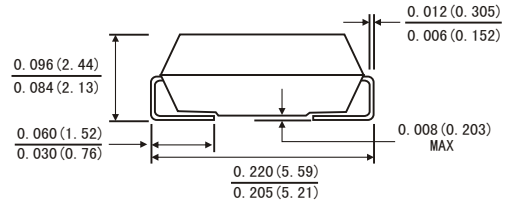
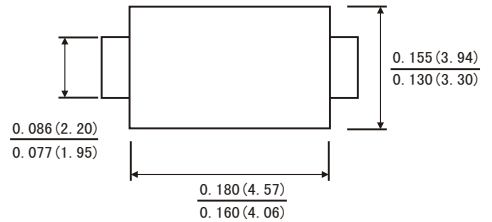
Reverse Voltage - 20 to 40 Volts
Forward Current - 3.0Ampers

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_{RRM}	20	30	40	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	Volts
Maximum DC blocking voltage	V_{DC}	20	30	40	Volts
Maximum average forward rectified current at $T_L=75^\circ\text{C}$	$I_{(AV)}$	3.0			Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) at $T_L=75^\circ\text{C}$	I_{FSM}	80.0			Amps
Maximum instantaneous forward voltage at 3.0 A(note 1)	V_F	0.475	0.500	0.525	Volts
Maximum instantaneous forward voltage at 9.4 A(note 1)	V_F	0.850	0.900	0.950	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	$T_A=25^\circ\text{C}$	1.5			mA
	$T_A=100^\circ\text{C}$	20.0			
Typical thermal resistance(Note 2)	$R_{\theta JA}$	55.0			$^\circ\text{C}/\text{W}$
	$R_{\theta JL}$	17.0			
Operating junction and storage temperature range	T_{JSTG}	-65 to +125			$^\circ\text{C}$

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

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SS5820 THRU SS5822

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Forward Current - 3.0Amperes

FIG.1-FORWARD CURRENT DERATING CURVE

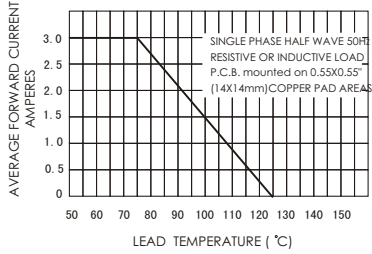


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

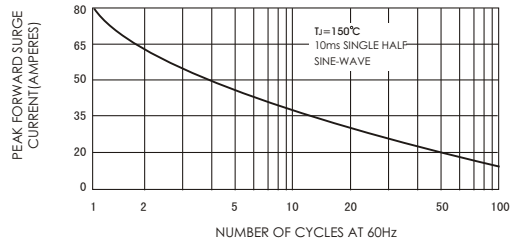


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

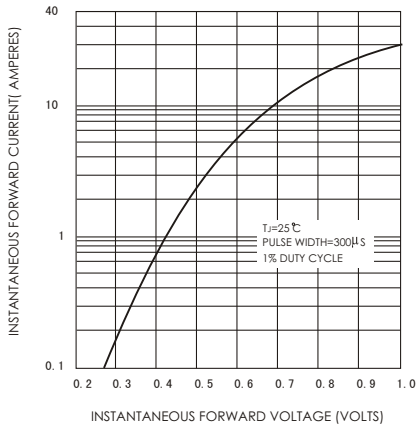


FIG.4-TYPICAL REVERSE CHARACTERISTICS

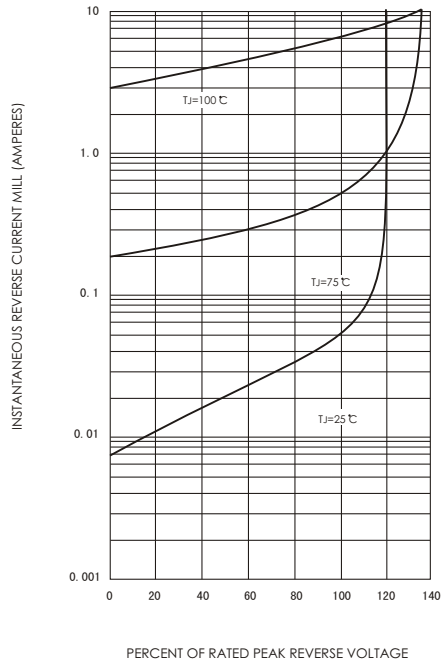


FIG.5-TYPICAL JUNCTION CAPACITANCE

