

# SS5817 THRU SS5819

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage – 20 to 40 Volts

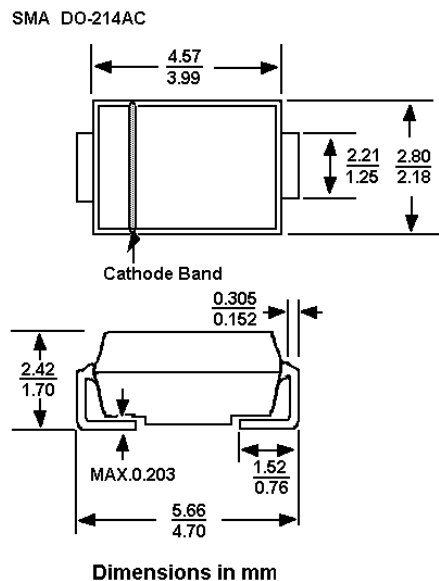
Forward Current – 1.0 Ampere

### Features

- Plastic package has Underwriters Laboratory Classification 94V-0
- Metal silicon junction, majority carrier conduction
- For surface mount applications
- Guard ring for overvoltage protection
- 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:250°C/10 seconds at terminals

### Mechanical Data

- Case: JEDEC SMA(DO-214AC) molded plastic case
- Terminals: Solder plate, solderable per MIL-STD-750 MIL-STD -750, method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any



### Absolute Maximum Ratings and Characteristics

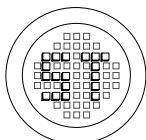
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, resistive or inductive load. For capacitive load, derate by 20%.

	Symbols	SS5817	SS5818	SS5819	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 non-repetitive peak reverse voltage	$V_{RSM}$	24	36	48	Volts
Maximum average forward rectified current 0.375"(9.5mm) load length at $T_L = 90^\circ\text{C}$	$I_{(AV)}$	1			Amp
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (JEDEC method) at $T_L = 70^\circ\text{C}$	$I_{FSM}$	25			Amps
Maximum instantaneous forward voltage at 1.0 A (Note 1)	$V_F$	0.45	0.55	0.60	Volts
Maximum instantaneous forward voltage at 3.1A (Note 1)	$V_F$	0.75	0.875	0.90	Volts
Maximum instantaneous reverse current at rated DC blocking voltage (Note 1)	@ $T_A = 25^\circ\text{C}$	0.5			mA
	@ $T_A = 100^\circ\text{C}$	10			mA
Typical thermal resistance(Note 2)	$R_{\theta JA}$	88			$^\circ\text{C/W}$
	$R_{\theta JL}$	28			$^\circ\text{C/W}$
Typical junction capacitance (Note 3)	$C_J$	110			pF
Operating and storage temperature range	$T_J, T_S$	-65 to +125			$^\circ\text{C}$

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

(2) Thermal Resistance (from Junction to Ambient) Vertical P.C.B Mounted, with 1.5x1.5" (38x38mm) copper pads.

(3) Measured at 1 MHz and reverse voltage of 4 volts.



®

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