

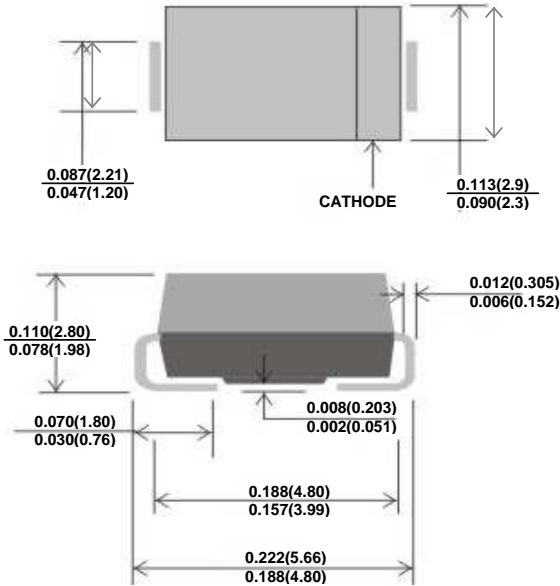


# SS5817 THRU SS5819

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 40 Volts Forward Current - 1.0 Ampere

### DO-214AC



Dimensions in inches and (millimeters)

### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Surface mount package ideally suited for automatic insertion
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds at terminals
- ◆ Pb free product : 99% Sn above can meet RoHS environment substance directive request

### MECHANICAL DATA

**Case:** JEDEC DO-214AC/SMA, Molded plastic over passivated junction

**Terminals:** Solderable per MIL-STD-750 · Method 2026

**Approx. Weight:** 0.003 ounce, 0.093 grams

**Mounting Position:** Any

**Polarity:** Color band denotes cathode end

### 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%.

PARAMETER	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
Minimum Reverse Breakdown Voltage at = 500 $\mu$ A	$V_R$	20	30	40	Volts
Average Rectified current at $T_L = 75^\circ\text{C}$	$I(AV)$	1.0			Amp
Non-repetitive Peak Forward Surge Current at 1=8.3ms	$I_{FSM}$	25			Amps
Maximum Forward Voltage	$V_F$	0.45 0.75	0.55 0.875	0.60 0.90	Volts
Reverse Leakage Current at $V_{RRM}$	$I_R$	500			$\mu$ A
Typical Junction Capacitance (NOTE 1)	$C_J$	110			pF
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	88			$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_J$	-55 ~ +125			$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-50 ~ +150			$^\circ\text{C}$

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Mounted with minimum recommended padsize · PCBoard FR4.

3.  $T_J=25^\circ\text{C}$  unless otherwise specified.



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## RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

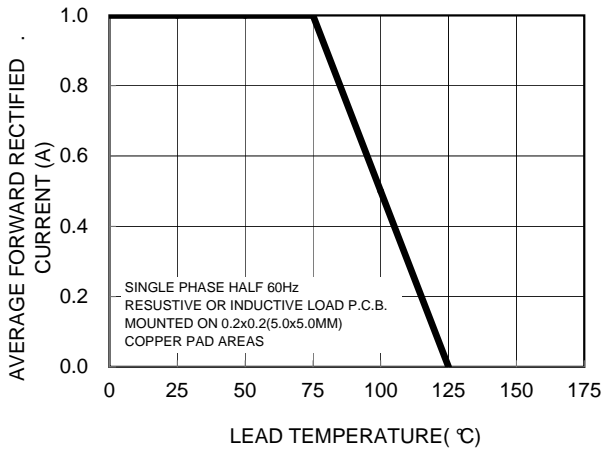


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

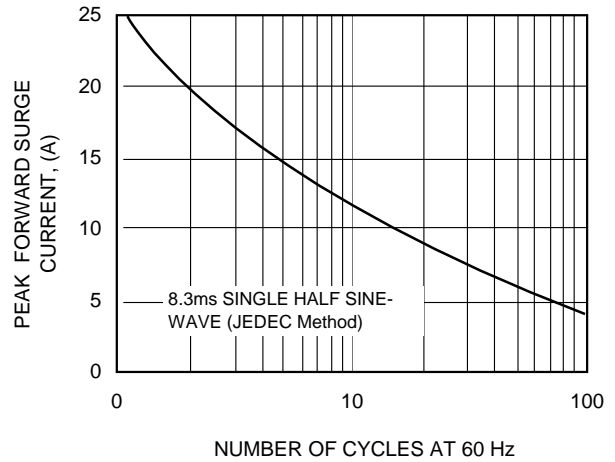


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

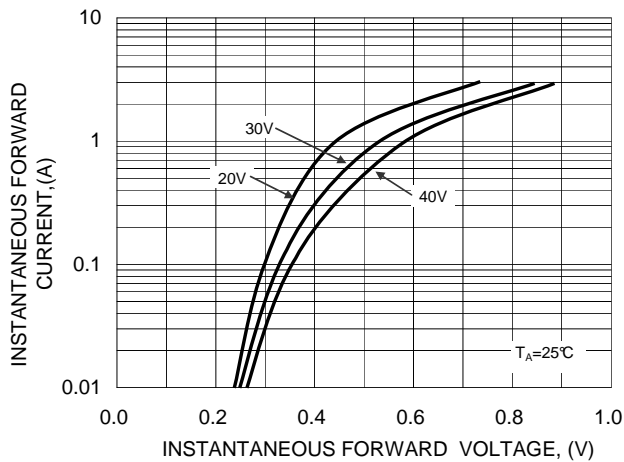


FIG. 4-TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

