



# CHENMKO ENTERPRISE CO.,LTD

*Halogens free devices*

## SURFACE MOUNT

### SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 - 40 Volts CURRENT 1.0 Ampere

**SSM5817GP**

**THRU**

**SSM5819GP**

#### FEATURES

- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* For surface mounted applications
- \* Low profile package
- \* Built-in strain relief
- \* Metal silicon junction, majority carrier conduction
- \* 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

#### MECHANICAL DATA

**Case:** JEDEC SMA molded plastic

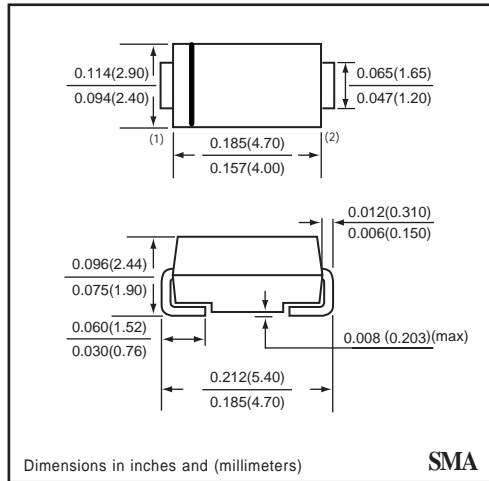
**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Weight:** 0.002 ounce 0.064 gram



SMA



Dimensions in inches and (millimeters)

SMA

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

#### MAXIMUM RATINGS ( At TA = 25°C unless otherwise noted )

RATINGS	SYMBOL	SSM5817GP	SSM5818GP	SSM5819GP	UNITS
Maximum Recurrent 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 TL = 90°C	I <sub>O</sub>	1.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) TL = 70°C	I <sub>FSM</sub>	25			Amps
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	110			pF
Typical Thermal Resistance (Note 1)	R <sub>θJL</sub>	30			°C / W
Storage and Operating Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +125			°C

#### ELECTRICAL CHARACTERISTICS ( At TA = 25°C unless otherwise noted )

CHARACTERISTICS	SYMBOL	SSM5817GP	SSM5818GP	SSM5819GP	UNITS
Maximum Instantaneous Forward Voltage at 1.0 A DC	V <sub>F</sub>	0.45	0.55	0.60	Volts
Maximum Instantaneous Forward Voltage at 3.1 A DC	V <sub>F</sub>	0.75	0.875	0.90	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@ TA = 25°C	1.0			mAmps
	@ TA = 100°C	10			mAmps

NOTES : 1. Thermal Resistance ( Junction to Lead ) : PC Board Mounted on 0.2 X 0.2" ( 5 X 5mm ) copper pad area.  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts.

# RATING CHARACTERISTIC CURVES ( SSM5817GP THRU SSM5819GP )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

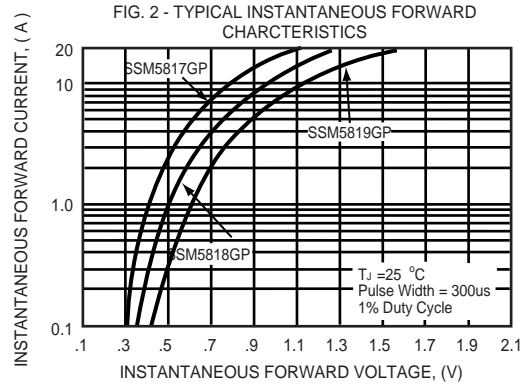
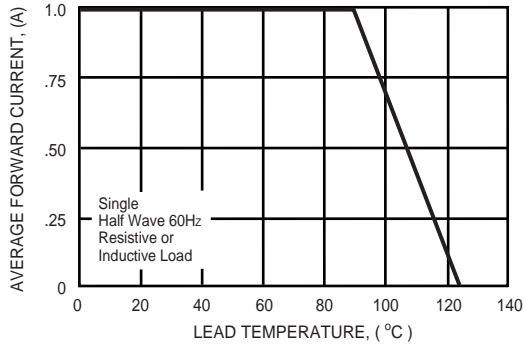


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

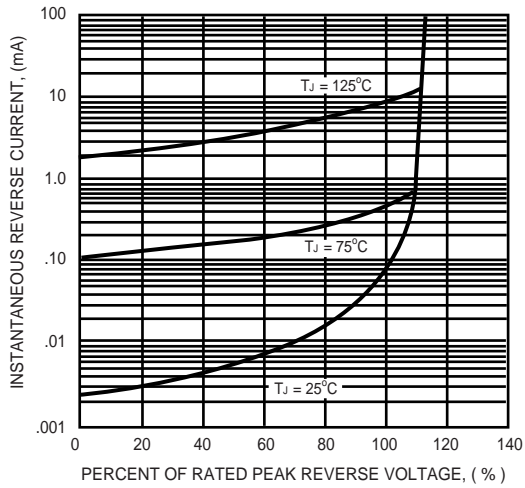


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

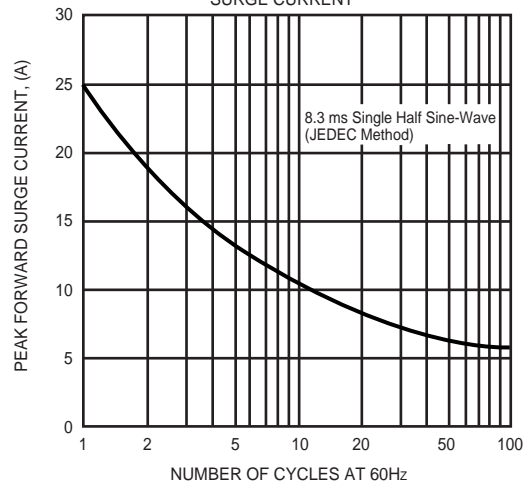


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

