CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

SURFACE MOUNT

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 - 40 Volts CURRENT 0.5 Ampere

SSM5817SLGP

THRU

SSM5819SLGP

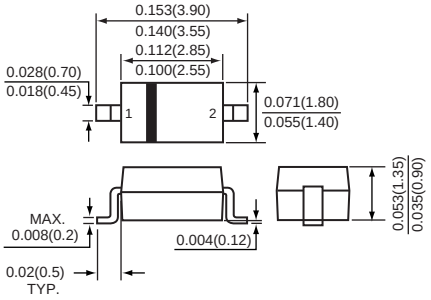
FEATURES

* 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
* Power dissipation: 410mW
* 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 SOD-123 molded plastic
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Weight: 0.001 ounce 0.032 gram

SOD-123



Dimensions in inches and (millimeters)

SOD-123

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 RATINGES (At T_A = 25°C unless otherwise noted)

RATINGS	SYMBOL	SSM5817SLGP	SSM5818SLGP	SSM5819SLGP	UNITS
Maximum Recurrent 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 = 100°C	I_O	0.5			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	5.5			Amps
Typic Junction Capacitance (Note 2)	C_J	170			pF
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	240			°C / W
Storage and Operating Temperature Range	T_J, T_{STG}	-65 to +125			°C
Voltage Rate of Change (Note 3)	di/dt	1000			V/uSec

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

CHARACTERISTICS		SYMBOL	SSM5817SLGP	SSM5818SLGP	SSM5819SLGP	UNITS
Maximum Instantaneous Forward Voltage at I_F=0.5A	@ T_A = 25°C	V_F	0.385	0.430	0.510	Volts
	@ T_A = 100°C		0.330	0.380	0.460	Volts
Maximum Average Reverse Current at Ratied DC Blocking Voltage	@ T_A = 25°C	I_R	250	130	20	uAmps
	@ T_A = 100°C		13	11	8	mAmps

NOTES : 1. Thermal Resistance (Junction to Lead) : PC Board Mounted on 0.06 X 0.06" (0.15X 0.15mm) copper pad area.
2. Measured at 1.0 MHz and applied reverse voltage of 0 volt.
3. dv/dt measured at rated reverse voltage.

RATING CHARACTERISTIC CURVES (SSM5817SLGP THRU SSM5819SLGP)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

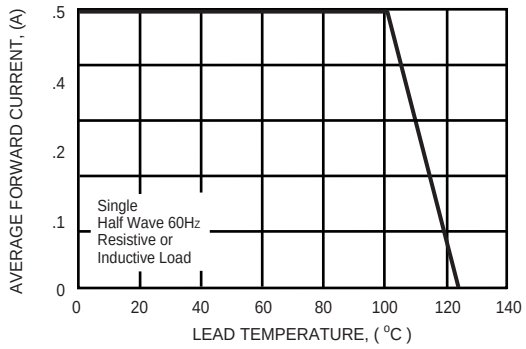


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARCTERISTICS

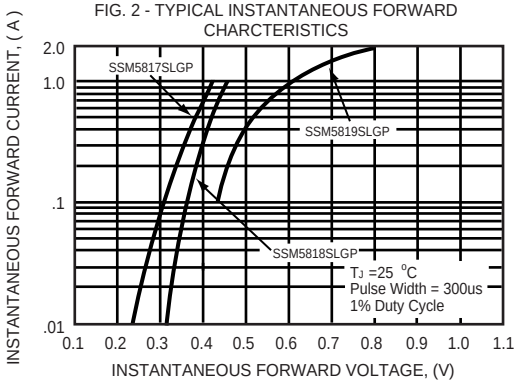


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

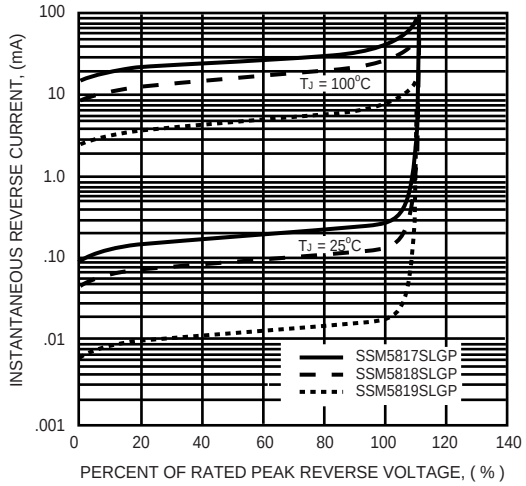


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

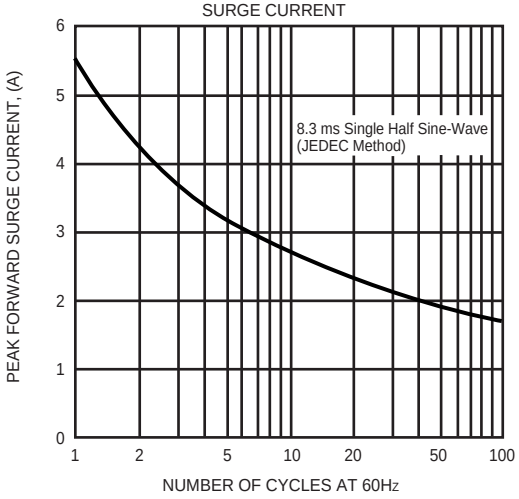


FIG. 5 - TYPICAL JUNCTION CAPACITANCE