

# CHENMKO ENTERPRISE CO.,LTD

**SURFACE MOUNT** SCHOTTKY BARRIER RECTIFIER VOLTAGE RANGE 20 - 40 Volts CURRENT 3.0 Amperes SSM32LSGP **THRU** SSM34LSGF

### **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-S molded plastic

Terminals: Solder plated, solderable per MIL-STD-750,

Method 2026

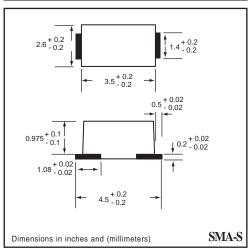
Polarity: Color band denotes cathode end

### 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 TA = 25°C unless otherwise noted )

RATINGS	SYMBOL	SSM32LSGP	SSM33LSGP	SSM34LSGP	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	20	30	40	Volts
Maximum RMS Voltage	VRMS	14	21	28	Volts
Maximum DC Blocking Voltage	VDC	20	30	40	Volts
Maximum Average Forward Rectified Current	lo	3.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	100			Amps
Typical Junction Capacitance (Note 2)	C1	250			pF
Typical Thermal Resistance (Note 1)	RθJL	18			°C/W
Operating and Storage Temperature Range	TJ,TSTG	-65 to +125			°C

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

	CHARACTERISTICS		SYMBOL	SSM32LSGP	SSM33LSGP	SSM34LSGP	UNITS				
	Maximum Instantaneous Forward Voltage at 3.0 A DC		VF	0.4			Volts				
	Maximum Average Reverse Current	@ Ta = 25°C	la.	1.0			mAmps				
	at Rated DC Blocking Voltage	@ Ta = 100°C	lR		40						

NOTES: 1. Thermal Resistance ( Junction to Lead ): PC Board Mounted on 0.31 X 0.31" ( 8 X 8mm ) copper pad area.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts.

2004-8

#### RATING CHARACTERISTIC CURVES ( SSM32LSGP THRU SSM34LSGP ) FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE FIG. 2 - TYPICAL INSTANTANEOUS INSTANTANEOUS FORWARD CURRENT, (A) FORWARD CHARACTERISTICS 20 AVERAGE FORWARD CURRENT, (A) 10 3.0 2.0 1.0 Single Half Wave 60Hz 1.0 Resistive or Inductive Load 1% Duty Cycle 0 0.1 0 25 75 100 125 150 175 0 .5 .6 .7 LEAD TEMPERATURE, ( °C ) INSTANTANEOUS FORWARD VOLTAGE,(V) FIG. 3 - TYPICAL REVERSE CHARACTERISTICS FIG. 4 - MAXIMUM NON-REPETIVE FORWARD SURGE CURRENT 1000 100 INSTANTANEOUS REVERSE CURRENT, (mA) PEAK FORWARD SURGE CURRETN(A) 100 80 8.3ms Single Half Sine-Wave (JEDEC Method) T<sub>J</sub> = 100°C 10 60 1.0 40 T<sub>J</sub> = 25°C 20 0.1 0 .01 2 80 100 6 8 10 20 40 PERCENT OF RATED PEAK REVERSE VOLTAGE, ( % ) NUMBER OF CYCLES AT 60 Hz FIG. 5 - TYPICAL JUNCTION CAPACITANCE JUNCTION CAPACITANCE, (pF) 1000 100 0 40 .1 1.0 REVERSE VOLTAGE, ( V )