

CHENMKO ENTERPRISE CO.,LTD

SURFACE MOUNT

SURFACE MOUNT

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 40 Volts CURPENT VOLTAGE RANGE 40 Volts CURRENT 1.0 Ampere

SSM14LHGP

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

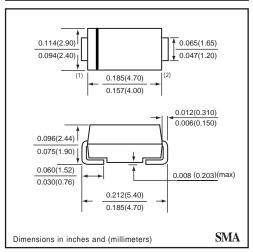
Polarity: Color band denotes cathode end Weight: 0.002 ounce 0.064 gram

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 | SSM14LHGP | UNITS |
|---|---------|-------------|-------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 40 | Volts |
| Maximum RMS Voltage | VRMS | 28 | Volts |
| Maximum DC Blocking Voltage | VDC | 40 | Volts |
| Maximum Average Forward Rectified Current | lo | 1.0 | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM | 50 | Amps |
| Typical Junction Capacitance (Note 2) | Ci | 330 | pF |
| Typical Thermal Resistance (Note 1) | RθJL | 25 | °C/W |
| Operating and Storage Temperature Range | TJ,TSTG | -65 to +125 | °C |

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

| , | | , | | |
|---|--------------|--------|-----------|-------|
| CHARACTERISTICS | | SYMBOL | SSM14LHGP | UNITS |
| Maximum Instantaneous Forward Voltage at 1.0 A DC | | VF | 0.35 | Volts |
| Maximum Average Reverse Current | @ Ta = 25°C | lR | 1.0 | mAmps |
| at Rated DC Blocking Voltage | @ Ta = 100°C | | 40 | 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.

2002-3

RATING CHARACTERISTIC CURVES (SSM14LHGP) FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE FIG. 2 - TYPICAL INSTANTANEOUS INSTANTANEOUS FORWARD CURRENT, (A) FORWARD CHARACTERISTICS 20 AVERAGE FORWARD CURRENT, (A) 10 .75 .50 1.0 Single Half Wave 60Hz .25 Resistive or Inductive Load TJ =25°C Pulse Width=30 1% Duty Cycle 0.1 0 25 75 100 125 150 175 LEAD TEMPERATURE, (°C) INSTANTANEOUS FORWARD VOLTAGE,(V) FIG. 3 - TYPICAL REVERSE CHARACTERISTICS FIG. 4 - MAXIMUM NON-REPETIVE FORWARD SURGE CURRENT 1000 50 INSTANTANEOUS REVERSE CURRENT, (mA) PEAK FORWARD SURGE CURRETN(A) 100 40 8.3ms Single Half Sine-Wave (JEDEC Method) T_J = 100°C 30 10 1.0 20 T₁= 25°C 10 0.1 0 .01 2 6 8 10 20 80 100 40 PERCENT OF RATED PEAK REVERSE VOLTAGE, (%) NUMBER OF CYCLES AT 60 Hz FIG. 5 - TYPICAL JUNCTION CAPACITANCE 400 JUNCTION CAPACITANCE, (pF) 200 100 80 60 40 20 10

.1

1.0

REVERSE VOLTAGE, (V)

40