



CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

SURFACE MOUNT

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 - 40 Volts CURRENT 5.0 Amperes

SCM52LGP

THRU

SCM54LGP

FEATURES

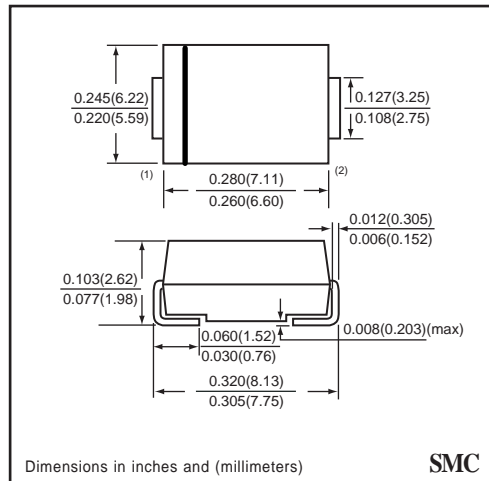
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * For surface mounted applications
- * Low profile package
- * Built-in strain relief
- * Metal silicon junction, majority carrier conduction
- * Low power loss, high efficiency
- * High current capability, low forward 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 SMC molded plastic
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Weight: 0.007 ounce 0.25 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 RATINGS (At TA = 25°C unless otherwise noted)

| RATINGS | SYMBOL | SCM52LGP | SCM53LGP | SCM54LGP | 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 | I _O | 5.0 | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 150 | | | Amps |
| Typical Junction Capacitance (Note 2) | C _J | 300 | | | pF |
| Typical Thermal Resistance (Note 1) | R _{θJL} | 10 | | | °C / W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -65 to +125 | | | °C |

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

| CHARACTERISTICS | SYMBOL | SCM52LGP | SCM53LGP | SCM54LGP | UNITS |
|---|----------------|----------|----------|----------|-------|
| Maximum Instantaneous Forward Voltage at 5.0 A DC | V _F | 0.40 | | | Volts |
| Maximum Average Reverse Current at Rated DC Blocking Voltage | @ TA = 25°C | 0.5 | | | mAmps |
| | @ TA = 100°C | 20 | | | mAmps |

NOTES : 1. Thermal Resistance (Junction to Lead) : PC Board Mounted on 0.55 X 0.55" (14 X 14mm) copper pad area.
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts.

RATING CHARACTERISTIC CURVES (SCM52LGP THRU SCM54LGP)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

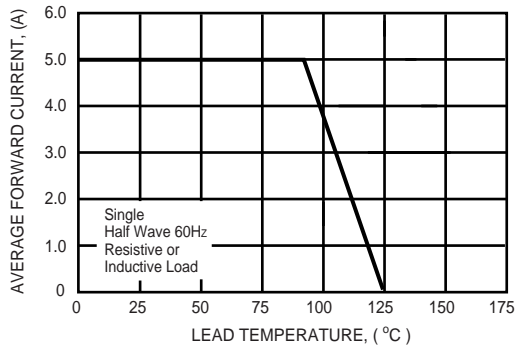


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

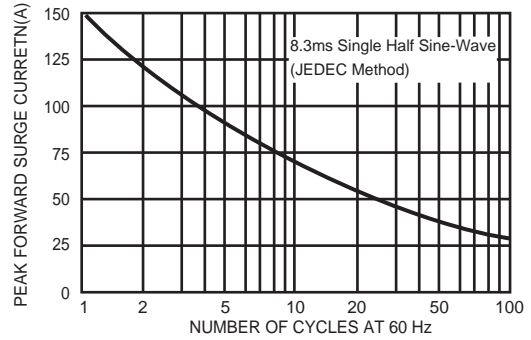


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

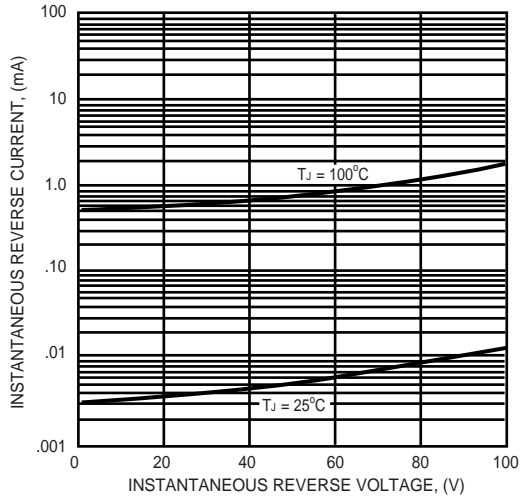


FIG. 4 - INSTANTANEOUS FORWARD CURRENT, (A)

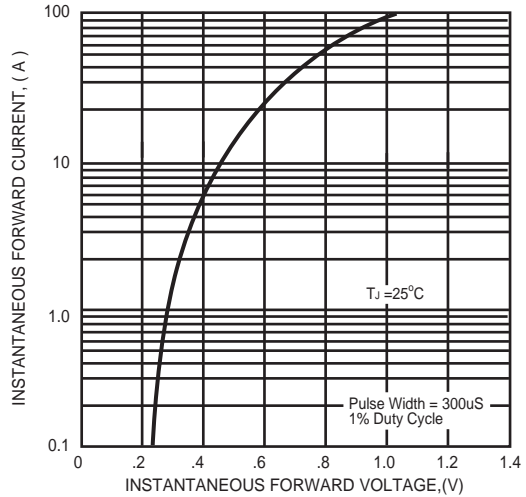


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

