



CHENMKO ENTERPRISE CO.,LTD

SSM5817SLPT

THRU

SSM5819SLPT

SURFACE MOUNT

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 - 40 Volts CURRENT 0.5 Ampere

Lead free devices

FEATURES

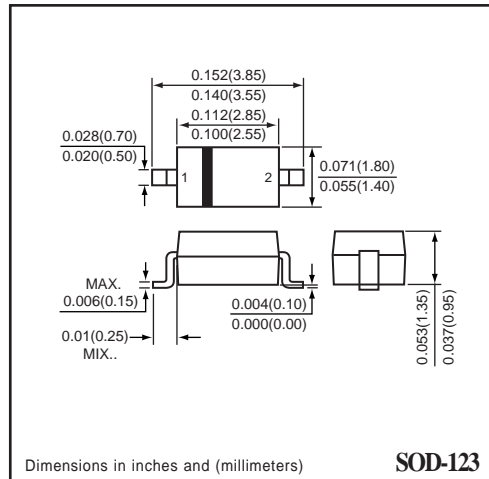
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * For surface mounted applications
- * Low profile package
- * Built-in strain relief
- * Metal silicon junction, majority carrier conduction
- * Low power loss, high efficiency
- * High current capability, low forward 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



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

| RATINGS | SYMBOL | SSM5817SLPT | SSM5818SLPT | SSM5819SLPT | 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 at TL = 100°C | Io | 0.5 | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM | 5.5 | | | Amps |
| Typic Junction Capacitance (Note 2) | CJ | 170 | | | pF |
| Typical Thermal Resistance (Note 1) | R # JL | 240 | | | °C / W |
| Storage and Operating Temperature Range | TJ, TSTG | -65 to +125 | | | °C |
| Voltage Rate of Change (Note 3) | di/dt | 1000 | | | V/uSec |

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

| CHARACTERISTICS | SYMBOL | SSM5817SLPT | SSM5818SLPT | SSM5819SLPT | UNITS |
|--|--------------|-------------|-------------|-------------|-------|
| Maximum Instantaneous Forward Voltage at IF=0.5A | @ TA = 25°C | 0.385 | 0.430 | 0.510 | Volts |
| | @ TA = 100°C | 0.330 | 0.380 | 0.460 | Volts |
| Maximum Average Reverse Current at Rated DC Blocking Voltage | @ TA = 25°C | 250 | 130 | 20 | uAmps |
| | @ TA = 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 (SSM5817SLPT THRU SSM5819SLPT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

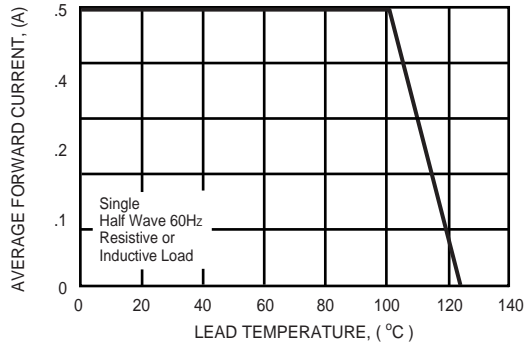


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

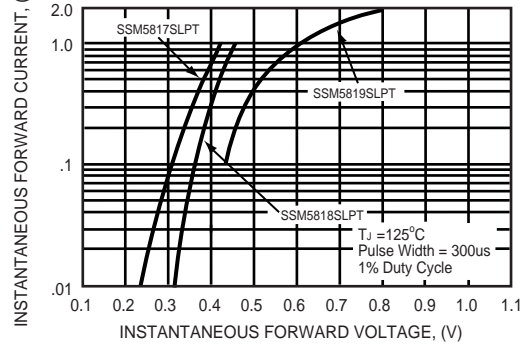


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

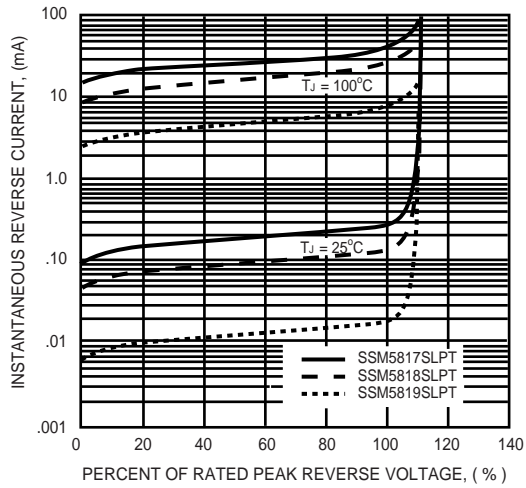


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

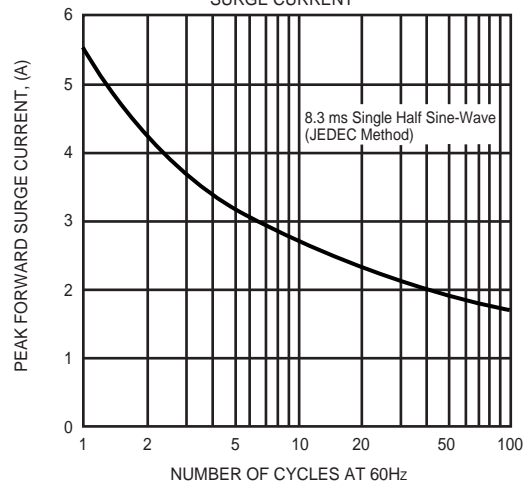


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

