



CHENMKO ENTERPRISE CO.,LTD

SURFACE MOUNT

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 70 - 100 Volts CURRENT 3.0 Amperes

SBM37PT

THRU

SBM310PT

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
- * 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 SMB molded plastic

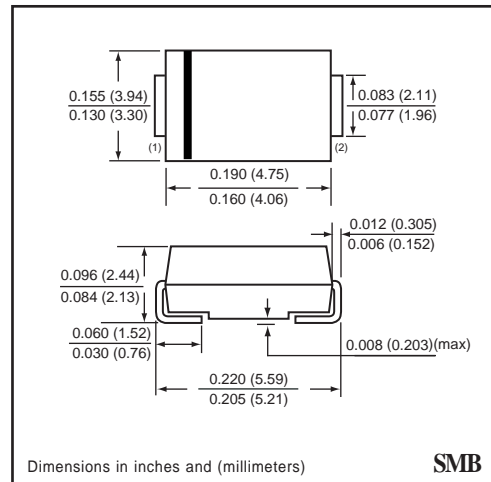
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Weight: 0.003 ounce 0.093 gram



SMB



Dimensions in inches and (millimeters)

SMB

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 | SBM37PT | SBM38PT | SBM39PT | SBM310PT | UNITS |
|---|---------|-------------|---------|---------|----------|--------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 70 | 80 | 90 | 100 | Volts |
| Maximum RMS Voltage | VRMS | 49 | 56 | 63 | 70 | Volts |
| Maximum DC Blocking Voltage | VDC | 70 | 80 | 90 | 100 | Volts |
| Maximum Average Forward Rectified Current | Io | 3.0 | | | | 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) | CJ | 110 | | | | pF |
| Typical Thermal Resistance (Note 1) | R θJL | 17 | | | | °C / W |
| Operating and Storage Temperature Range | TJ,TSTG | -65 to +150 | | | | °C |

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

| CHARACTERISTICS | SYMBOL | SBM37PT | SBM38PT | SBM39PT | SBM310PT | UNITS |
|---|--------|---------|---------|---------|----------|-------|
| Maximum Instantaneous Forward Voltage at 3.0 A DC | VF | 0.75 | | 0.80 | | Volts |
| Maximum Average Reverse Current | IR | 0.5 | | | | mAmps |
| at Rated DC Blocking Voltage | | | | | | 10 |

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.

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RATING CHARACTERISTIC CURVES (SBM37PT THRU SBM310PT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

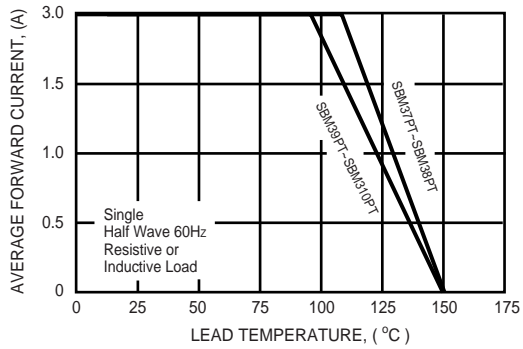


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

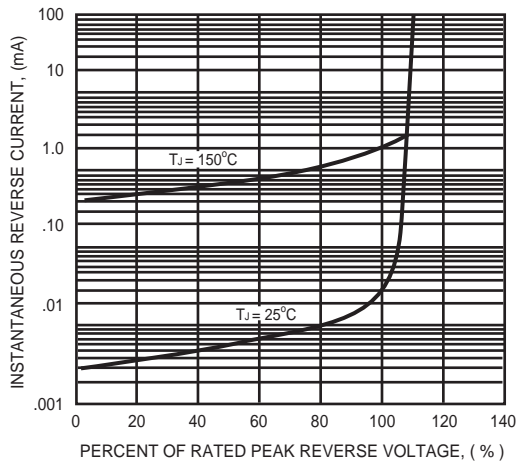


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

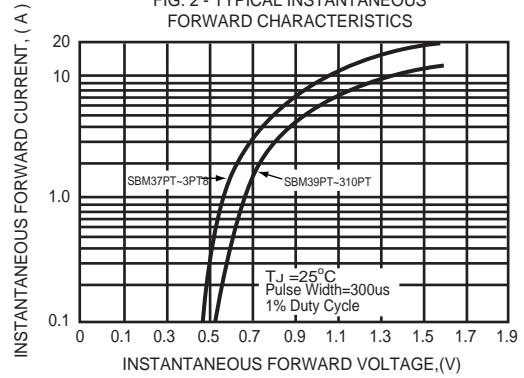


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

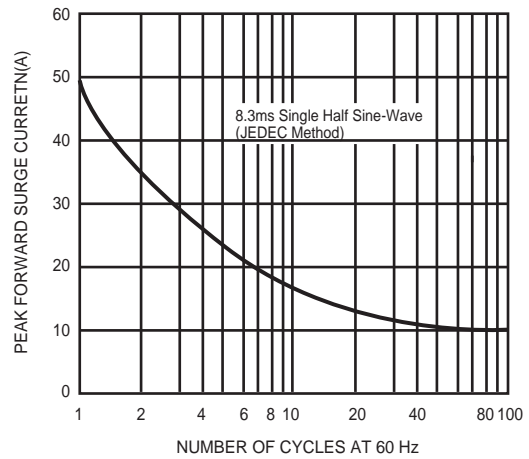


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

