



CHENMKO ENTERPRISE CO.,LTD

Lead free devices

SURFACE MOUNT

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 - 40 Volts CURRENT 3.0 Amperes

SBM5820PT

THRU

SBM5822PT

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

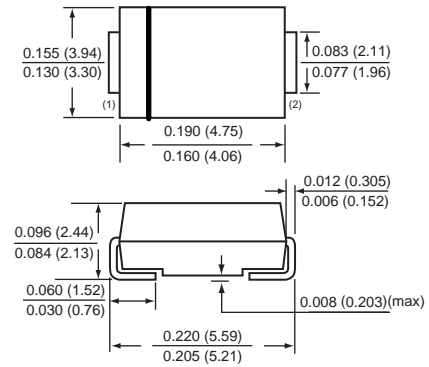
Weight: 0.003 ounce 0.093 gram

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%.



SMB



Dimensions in inches and (millimeters)

SMB

MAXIMUM RATINGS (At Ta = 25°C unless otherwise noted)

RATINGS	SYMBOL	SBM5820PT	SBM5821PT	SBM5822PT	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 = 95°C	Io	3.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) TL = 75°C	IFSM	80			Amps
Typical Junction Capacitance (Note 1)	CJ	250			pF
Typical Thermal Resistance (Note 2)	R θJA	28			°C / W
Storage and Operating Temperature Range	TJ, TSTG	-65 to +125			°C

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

CHARACTERISTICS	SYMBOL	SBM5820PT	SBM5821PT	SBM5822PT	UNITS
Maximum Instantaneous Forward Voltage at 3.0 A DC	VF	0.475	0.500	0.525	Volts
Maximum Instantaneous Forward Voltage at 9.4 A DC	VF	0.850	0.900	0.950	Volts
Maximum Average Reverse Current	IR	2.0			mAmps
at Rated DC Blocking Voltage (Note 3)		20			mAmps

NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts
 2. Thermal Resistance (Junction to Ambient) : P.C.B. mounted 0.31 x 0.31" (8 x 8mm) copper pad areas
 3. Measured at Pulse Width 300 us, Duty Cycle 2%.

2001-6

RATING CHARACTERISTIC CURVES (SBM5820 THRU SBM5822)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

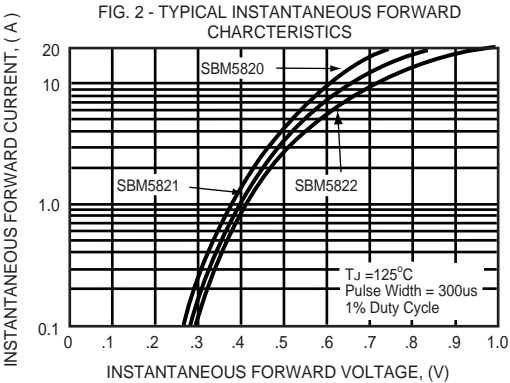
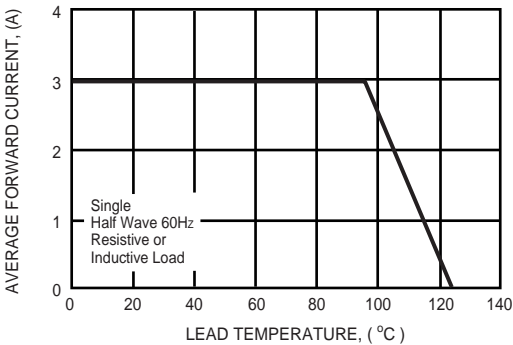


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

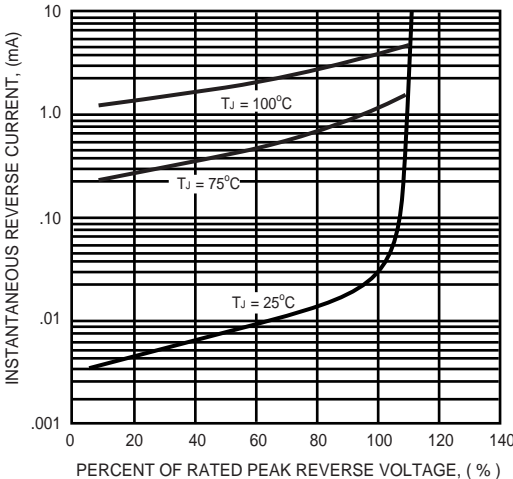


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

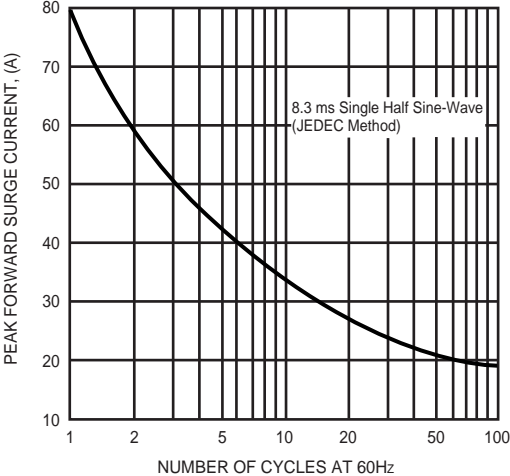


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

