



CHENMKO ENTERPRISE CO.,LTD

SBM84PT

SURFACE MOUNT

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 40 Volts CURRENT 8.0 Amperes

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

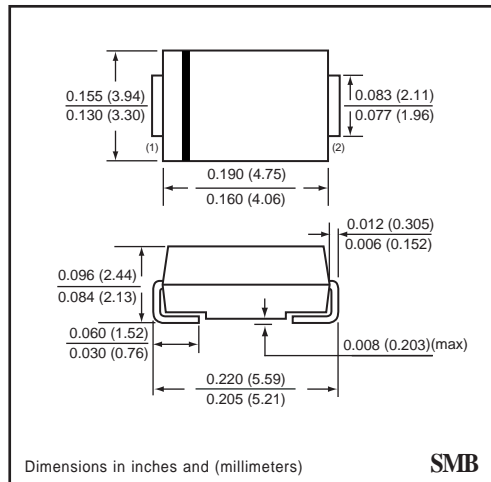
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Weight: 0.003 ounce 0.093 gram

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	SBM84PT	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	40	Volts
Maximum RMS Voltage	V _{RMS}	28	Volts
Maximum DC Blocking Voltage	V _{DC}	40	Volts
Maximum Average Forward Rectified Current	I _O	8.0	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	150	Amps
Typical thermal resistance per leg (NOTE 1)	R _{θJC}	7.5	°C / W
Total Power Dissipation	P _D	4.0	W
Operating and Storage Temperature Range	T _J , T _{STG}	-40 to +125	°C

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

CHARACTERISTICS	SYMBOL	SBM84PT	UNITS
Maximum Instantaneous Forward Voltage at 8.0 A DC	V _F	0.55	Volts
Maximum instantaneous reverse current at rated DC blocking voltage per leg (NOTE 2)	T _C = 25°C	1.0	mAmps
	T _C = 100°C	50	mAmps

NOTES : 1. Thermal resistance from junction to case per leg
2. Pulse test : 300 us pulse width, 1% duty cycle

RATING CHARACTERISTIC CURVES (SBM84PT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

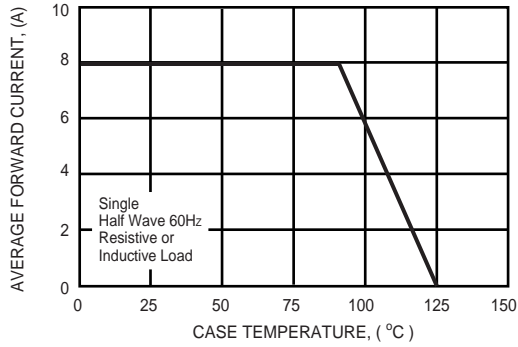


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

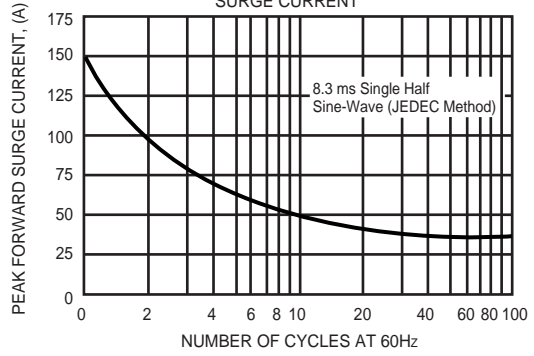


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

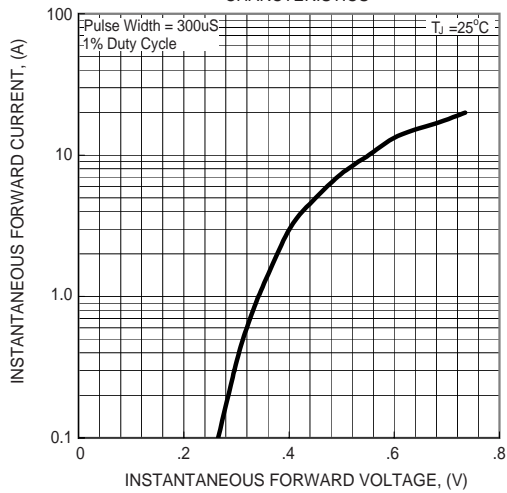


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

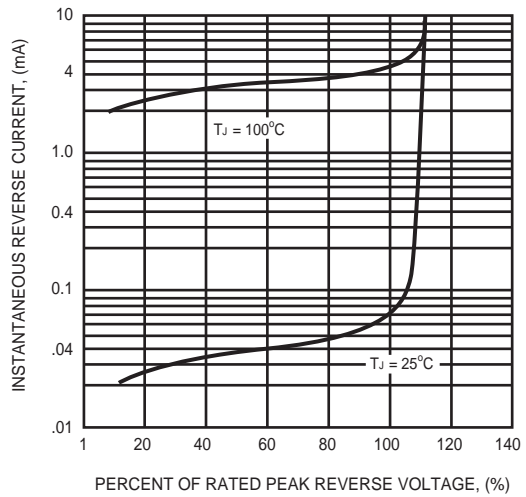


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

