



# CHENMKO ENTERPRISE CO.,LTD

**SBM86PT**

*Lead free devices*

## SURFACE MOUNT

SCHOTTKY BARRIER RECTIFIER  
VOLTAGE RANGE 60 Volts CURRENT 8.0 Amperes

### FEATURES

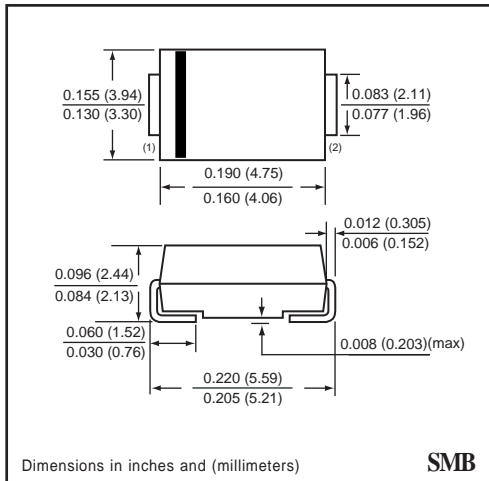
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* For surface mounted applications
- \* Low profile package
- \* Built-in strain relief
- \* Metal silicon junction, majority carrier conduction
- \* Low power loss, high efficiency
- \* High current capability, low 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	SBM86PT	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	60	Volts
Maximum RMS Voltage	VRMS	42	Volts
Maximum DC Blocking Voltage	VDC	60	Volts
Maximum Average Forward Rectified Current	IO	8.0	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	150	Amps
Typical thermal resistance per leg ( NOTE 1 )	R θJC	7.5	°C / W
Total Power Dissipation	PD	4.0	W
Operating and Storage Temperature Range	TJ, TSTG	-40 to +125	°C

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

CHARACTERISTICS	SYMBOL	SBM86PT	UNITS
Maximum Instantaneous Forward Voltage at 8.0 A DC	VF	0.75	Volts
Maximum instantaneous reverse current at rated DC blocking voltage per leg ( NOTE 2 )	Tc = 25°C	1.0	mAmps
	Tc = 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 ( SBM86PT )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

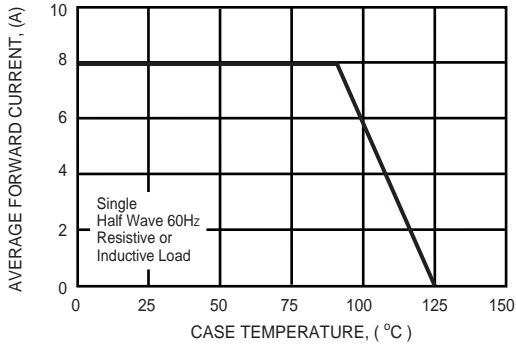


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

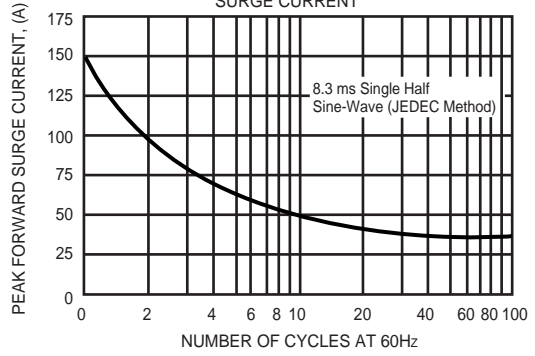


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

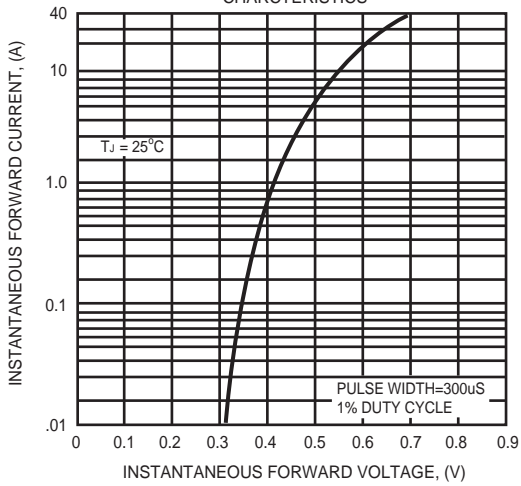


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

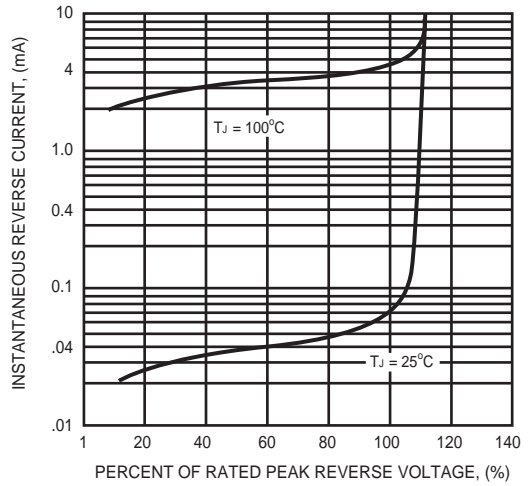


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

