



# CHENMKO ENTERPRISE CO.,LTD

## SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 70 - 100 Volts CURRENT 20 Amperes

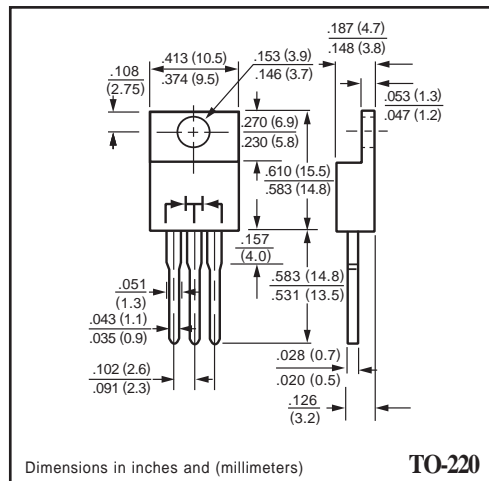
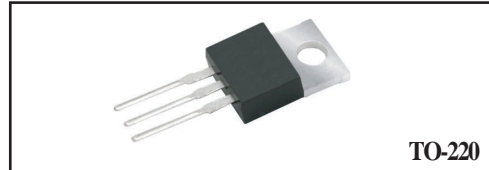
**S20C70PT  
THRU  
S20C100PT**

### FEATURES

- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* Metal Silicon junction, majority carrier conduction
- \* Low power loss,high efficiency
- \* High current capability, low forward voltage drop
- \* Guardring for overvoltage protection
- \* For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

### MECHANICAL DATA

**Case:** JEDEC TO-220 molded plastic  
**Polarity:** As marked  
**Weight:** 2.24 grams ( Approximately )



### 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	S20C70PT	S20C80PT	S20C90PT	S20C100PT	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	70	80	90	100	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	49	56	63	70	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	70	80	90	100	Volts
Maximum Average Forward Rectified Current	I <sub>O</sub>	20.0				Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	200				Amps
Typical thermal resistance per leg ( NOTE 1 )	R <sub>θJC</sub>	2.2				°C / W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-60 to +150				°C

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

CHARACTERISTICS	SYMBOL	S20C70PT	S20C80PT	S20C90PT	S20C100PT	UNITS
Maximum Instantaneous Forward Voltage at 10.0 A DC	V <sub>F</sub>	0.75		0.85		Volts
Maximum instantaneous reverse current at rated DC blocking voltage per leg ( NOTE 2 )	T <sub>C</sub> = 25°C	5.0				mAmps
	T <sub>C</sub> = 125°C	50				mAmps

- NOTES : 1. Thermal resistance from junction to case per leg  
2. Pulse test : 300 us pulse width, 1% duty cycle  
3. Suffix " C " = Common Cathod, Suffix " A " = Common Anode, Suffix " D " = Double.

## RATING CHARACTERISTIC CURVES ( S20C70PT THRU S20C100PT )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

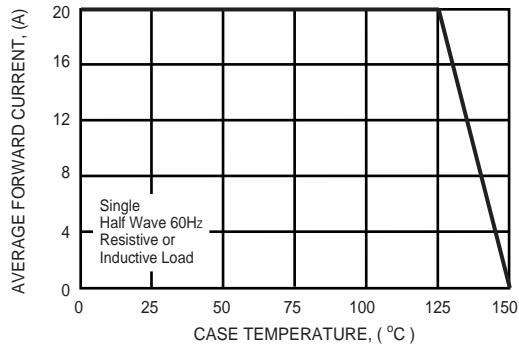


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

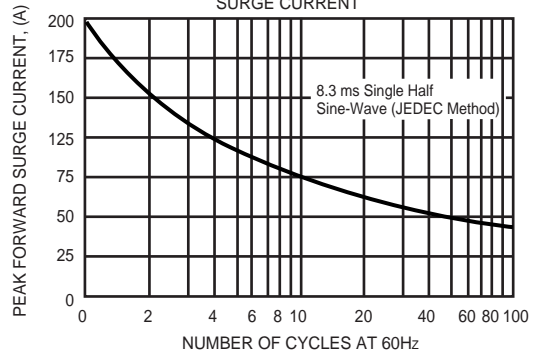


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

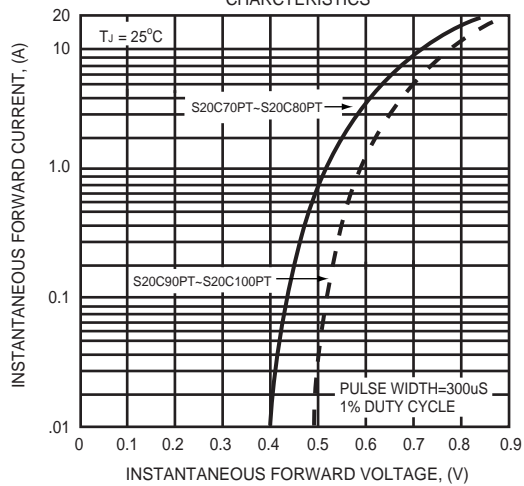


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

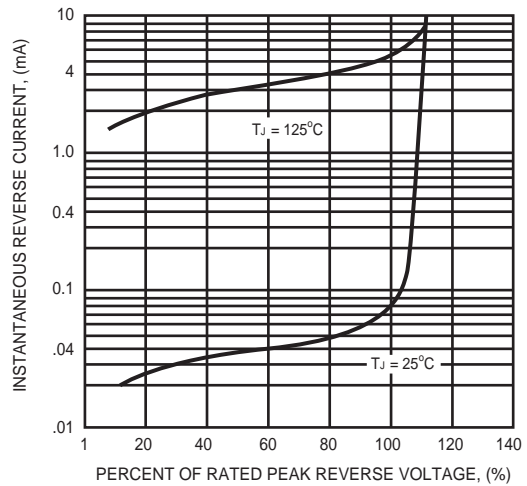


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

