



**CHENMKO ENTERPRISE CO.,LTD**

*Lead free devices*

**SCHOTTKY BARRIER RECTIFIER**

VOLTAGE RANGE 70 - 100 Volts CURRENT 8 Amperes

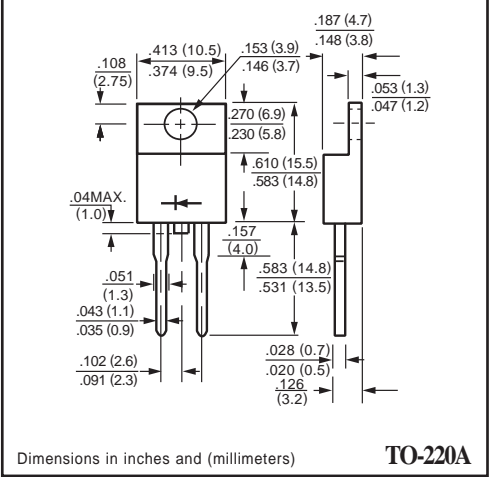
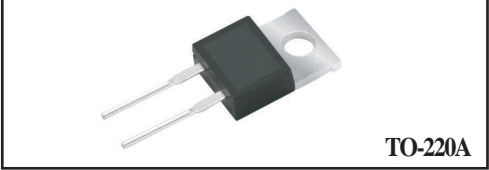
**S08A70PT  
THRU  
S08A100PT**

**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
- \* High temperature soldering in accordance with CECC 802 / Reflow guaranteed

**MECHANICAL DATA**

**Case:** JEDEC TO-220A molded plastic  
**Terminals:** Lead solderable per MIL-STD-750, Method 2026  
**Polarity:** As marked  
**Weight:** 1.81 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	S08A70PT	S08A80PT	S08A90PT	S08A100PT	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>	8.0				Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	150				Amps
Typical thermal resistance per leg ( NOTE 1 )	R <sub>θJC</sub>	5.0				°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	S08A70PT	S08A80PT	S08A90PT	S08A100PT	UNITS
Maximum Instantaneous Forward Voltage at 8.0 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 " P " = Case Positive, Suffix " R " = Case Negative.

## RATING CHARACTERISTIC CURVES ( S08A70PT THRU S08A100PT )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

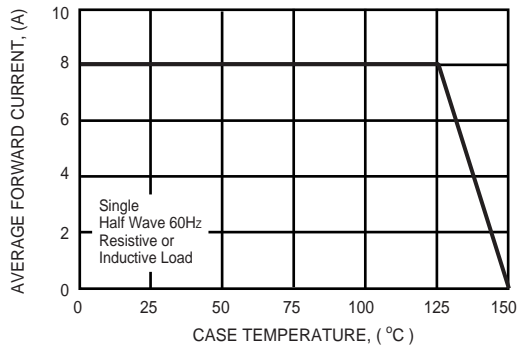


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

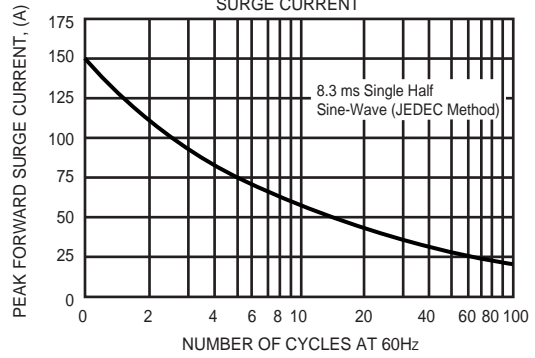


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

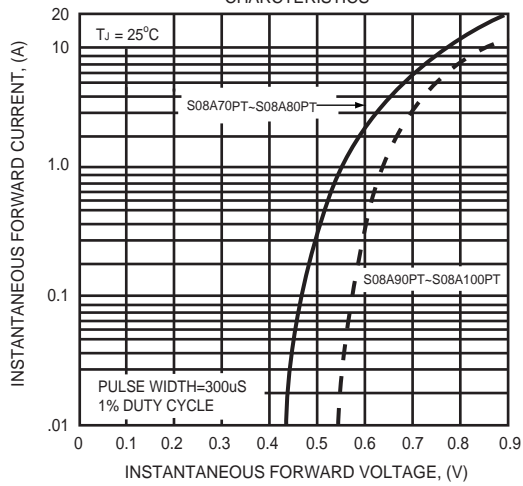


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

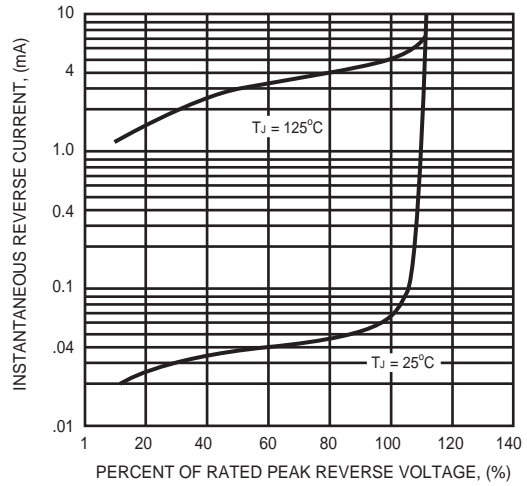


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

