



# CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

## SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 150 Volts CURRENT 10 Amperes

**S10C150GP**

### FEATURES

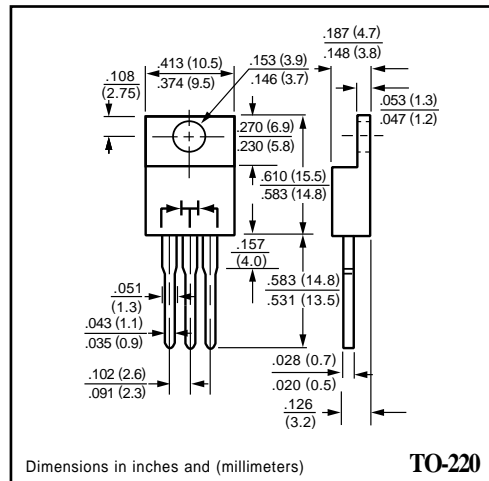
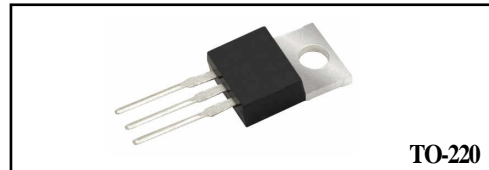
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* Metal Silicon junction, majority carrier conduction
- \* Low power loss, high efficiency
- \* High current capability, low forward voltage drop
- \* Guardring for overvoltage protection
- \* For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- \* High temperature soldering in accordance with CECC 802 / Reflow guaranteed

### MECHANICAL DATA

**Case:** JEDEC TO-220 molded plastic  
**Terminals:** Lead solderable per MIL-STD-750, Method 2026  
**Polarity:** As marked  
**Weight:** 2.45 grams ( Approximately )  
**Marking:** S10C150F

### 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	S10C150GP	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	150	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	105	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	175	Volts
Maximum Average Forward Rectified Current	I <sub>O</sub>	10.0	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 $\theta$ JC	2.5	°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	S10C150GP	UNITS
Maximum Instantaneous Forward Voltage at 5.0 A DC	V <sub>F</sub>	0.92	Volts
Maximum instantaneous reverse current at rated DC blocking voltage per leg ( NOTE 2 )	T <sub>C</sub> = 25°C	100	uAmps
	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.

2008-01

## RATING CHARACTERISTIC CURVES ( S10C150GP )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

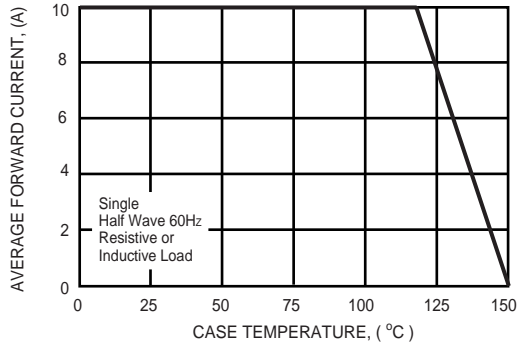


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

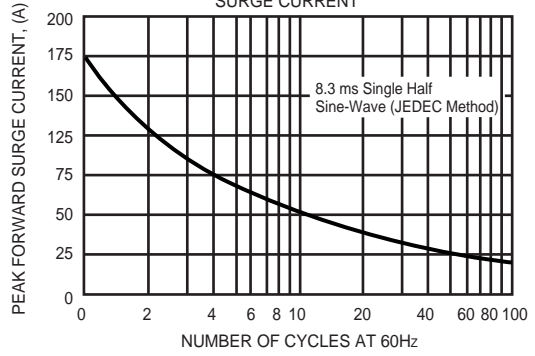


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

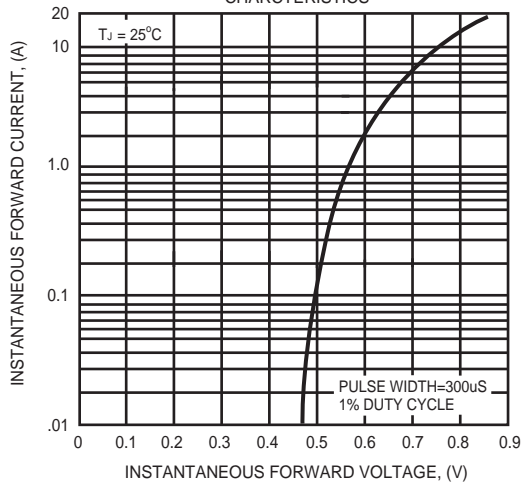


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

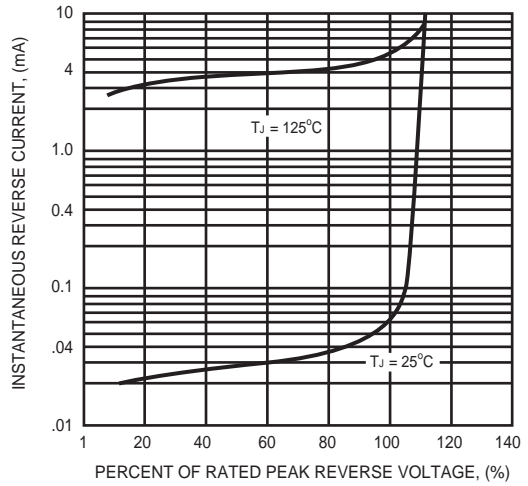


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

