



# CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

## SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 30 - 60 Volts CURRENT 30 Amperes

**S30C30GP**

**THRU**

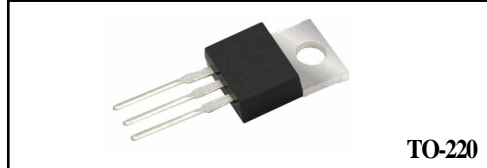
**S30C60GP**

### FEATURES

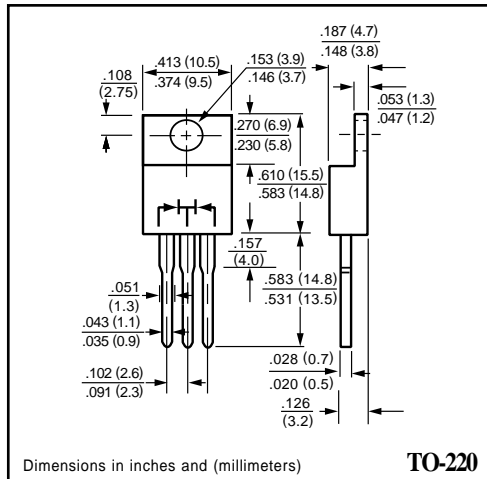
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* Metal Silicon junction, majority carrier conduction
- \* Low power loss,high efficiency
- \* High current capability, low forward voltage drop
- \* Guardring for overvoltage protection
- \* For use in low voltage, 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:** 2.24 grams ( Approximately )



TO-220



TO-220

### 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	S30C30GP	S30C35GP	S30C40GP	S30C45GP	S30C50GP	S30C60GP	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	30	35	40	45	50	60	Volts
Maximum RMS Voltage	VRMS	21	24	28	31	35	42	Volts
Maximum DC Blocking Voltage	VDC	30	35	40	45	50	60	Volts
Maximum Average Forward Rectified Current	Io	30.0						Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	200						Amps
Typical thermal resistance per leg ( NOTE 1 )	R θJC	1.0						°C / W
Operating and Storage Temperature Range	TJ, TSTG	-60 to +125						°C

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

CHARACTERISTICS	SYMBOL	S30C30GP	S30C35GP	S30C40GP	S30C45GP	S30C50GP	S30C60GP	UNITS	
Maximum Instantaneous Forward Voltage at 15.0 A DC	VF	0.55				0.65			Volts
Maximum instantaneous reverse current at rated DC blocking voltage per leg ( NOTE 2 )	Tc = 25°C	5.0						mAmps	
	Tc = 100°C	80						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 ( S30C30GP THRU S30C60GP )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

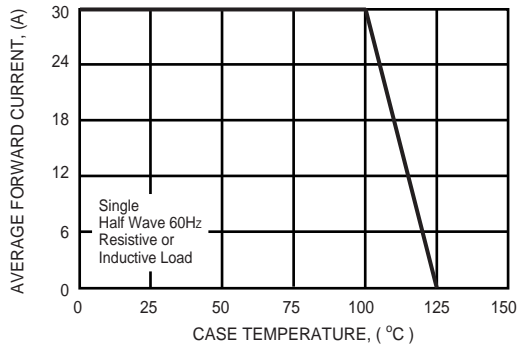


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

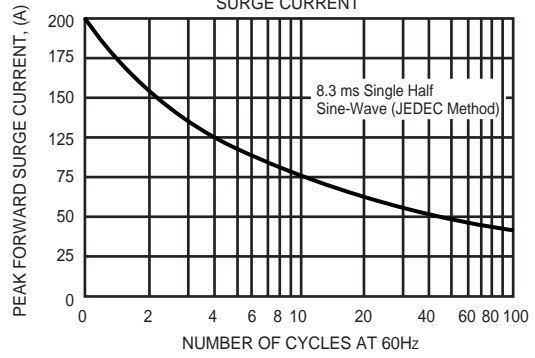


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

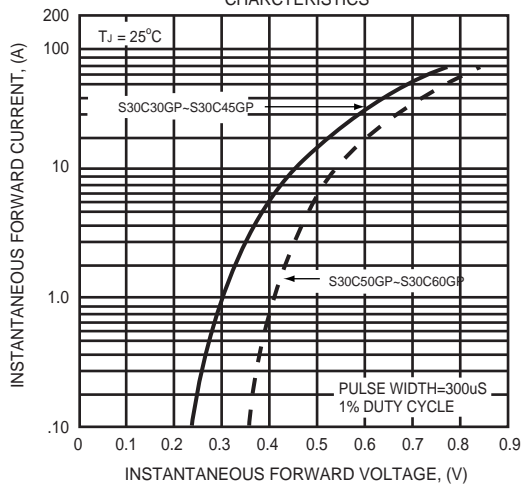


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

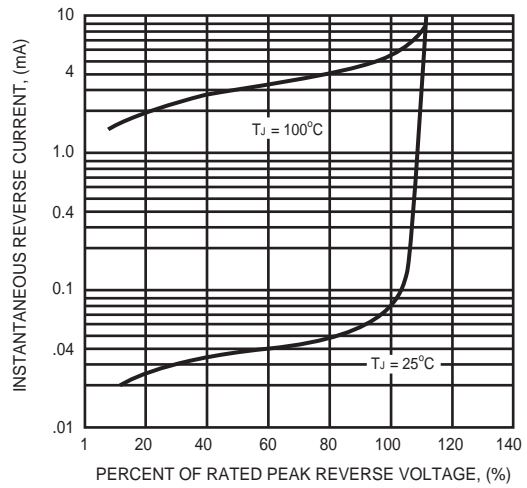


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

