



**CHENMKO ENTERPRISE CO.,LTD**

*Halogens free devices*

**SCHOTTKY BARRIER RECTIFIER**

VOLTAGE RANGE 20 - 45 Volts CURRENT 15 Amperes

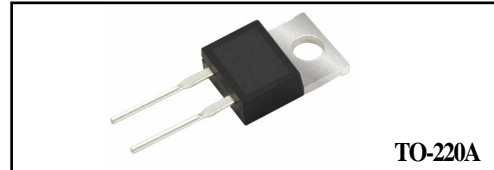
**LS15A20GP  
THRU  
LS15A45GP**

**FEATURES**

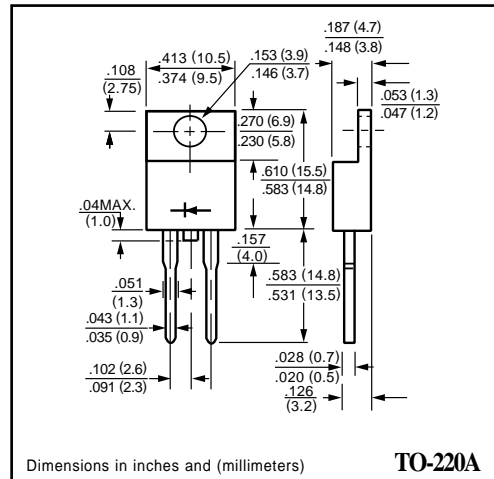
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* Metal Silicon junction, majority carrier conduction
- \* Low power loss,high efficiency
- \* High current capability, low forward voltage drop
- \* Guardring for overvoltage protection
- \* For use in low voltage, 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-220A**



**TO-220A**

**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	LS15A20GP	LS15A30GP	LS15A40GP	LS15A45GP	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	20	30	40	45	Volts
Maximum RMS Voltage	VRMS	14	21	28	31	Volts
Maximum DC Blocking Voltage	VDC	20	30	40	45	Volts
Maximum Average Forward Rectified Current	Io	15.0				Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	300				Amps
Typical thermal resistance per leg ( NOTE 1 )	R θJC	2.0				°C / W
Operating and Storage Temperature Range	TJ, TSTG	-55 to +150				°C

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

CHARACTERISTICS	SYMBOL	LS15A20GP	LS15A30GP	LS15A40GP	LS15A45GP	UNITS
Maximum Instantaneous Forward Voltage at 15 A DC	VF	0.55			0.58	Volts
Maximum instantaneous reverse current at rated DC blocking voltage per leg ( NOTE 2 )	Tc = 25°C	0.5				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 ( LS15A20GP THRU LS15A45GP )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

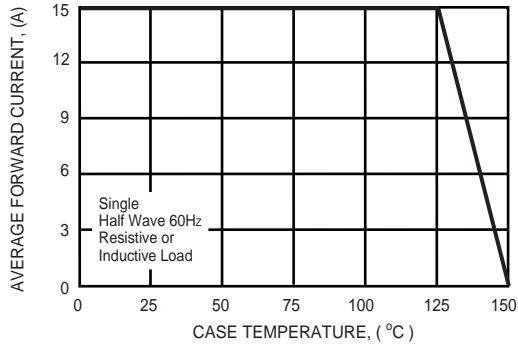


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

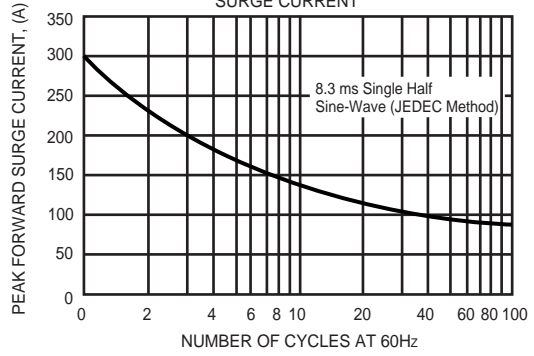


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

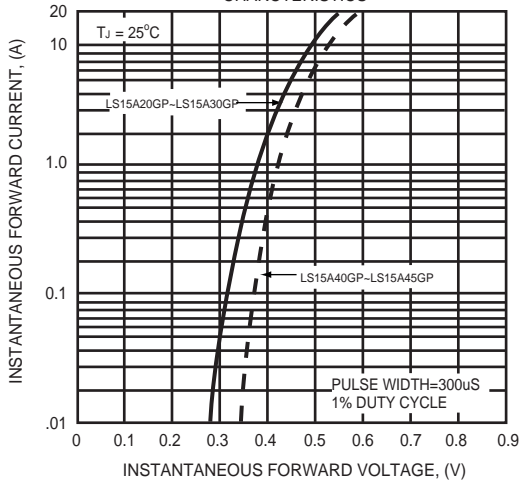


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

