



CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

SCHOTTKY BARRIER RECTIFIER

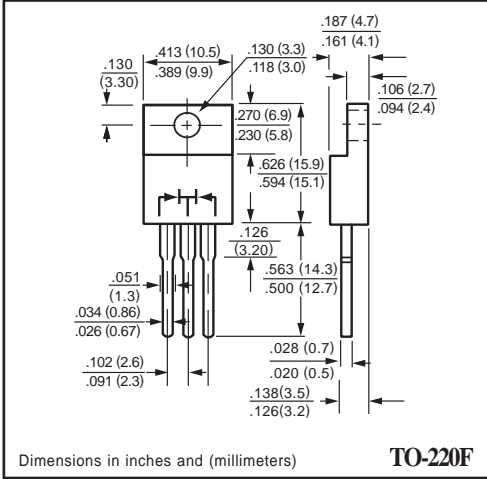
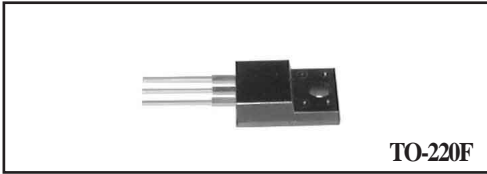
VOLTAGE RANGE 30 - 60 Volts CURRENT 16 Amperes

**S16C30FGP
THRU
S16C60FGP**

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-220F molded plastic



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	S16C30FGP	S16C35FGP	S16C40FGP	S16C45FGP	S16C50FGP	S16C60FGP	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	16.0						Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	150						Amps
Typical thermal resistance per leg (NOTE 1)	R θJC	2.5						°C / W
Operating and Storage Temperature Range	TJ, TSTG	-60 to +125						°C

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

CHARACTERISTICS	SYMBOL	S16C30FGP	S16C35FGP	S16C40FGP	S16C45FGP	S16C50FGP	S16C60FGP	UNITS
Maximum Instantaneous Forward Voltage at 8.0 A DC	VF	0.55				0.70		Volts
Maximum instantaneous reverse current at rated DC blocking voltage per leg (NOTE 2)	Tc = 25°C	5.0						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 (S16C30FGP THRU S16C60FGP)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

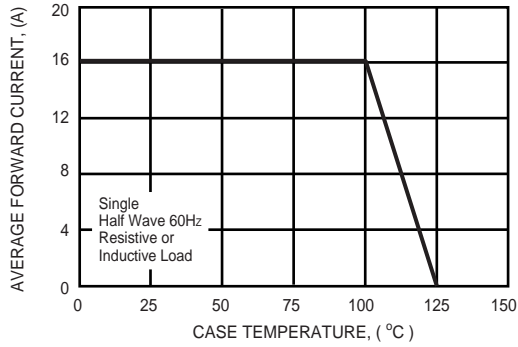


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

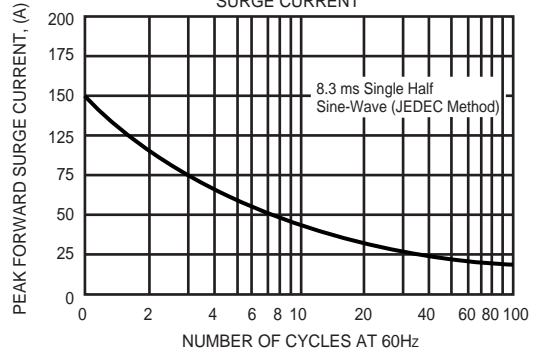


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

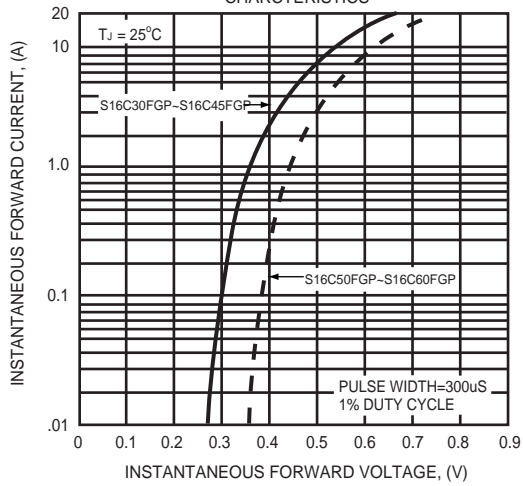


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

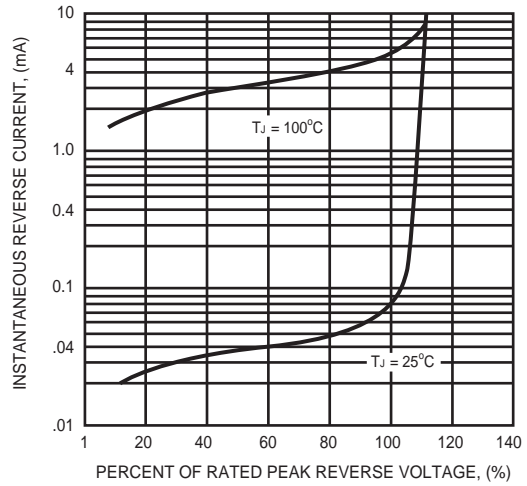


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

