



CHENMKO ENTERPRISE CO.,LTD

**S16D30PT
THRU
S16D60PT**

Lead free devices

SCHOTTKY BARRIER RECTIFIER

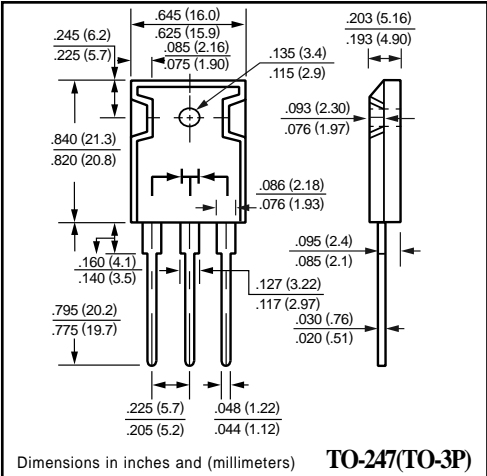
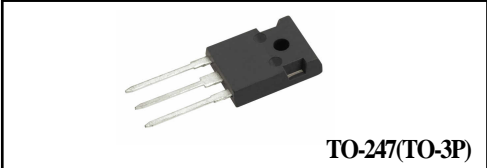
VOLTAGE RANGE 30 - 60 Volts CURRENT 16 Amperes

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-247 molded plastic
Terminals: Lead solderable per MIL-STD-750, Method 2026
Polarity: As marked
Weight: 5.6 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	S16D30PT	S16D35PT	S16D40PT	S16D45PT	S16D50PT	S16D60PT	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	30	35	40	45	50	60	Volts
Maximum RMS Voltage	V _{RMS}	21	24	28	31	35	42	Volts
Maximum DC Blocking Voltage	V _{DC}	30	35	40	45	50	60	Volts
Maximum Average Forward Rectified Current	I _O	16.0						Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	200						Amps
Typical thermal resistance per leg (NOTE 1)	R _{θJC}	2.5						°C / W
Operating and Storage Temperature Range	T _J , T _{STG}	-60 to +125						°C

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

CHARACTERISTICS	SYMBOL	S16D30PT	S16D35PT	S16D40PT	S16D45PT	S16D50PT	S16D60PT	UNITS
Maximum Instantaneous Forward Voltage at 8.0 A DC	V _F	0.55				0.70		Volts
Maximum instantaneous reverse current at rated DC blocking voltage per leg (NOTE 2)	T _C = 25°C	5.0						mAmps
	T _C = 100°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.

RATING CHARACTERISTIC CURVES (S16D30PT THRU S16D60PT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

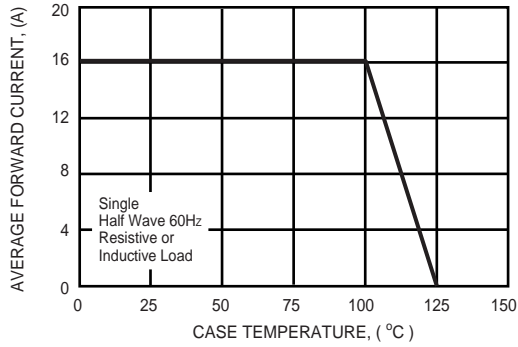


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

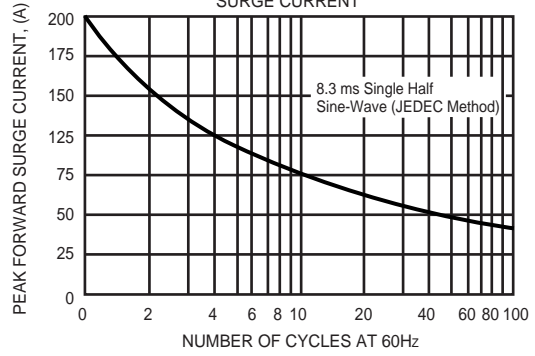


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

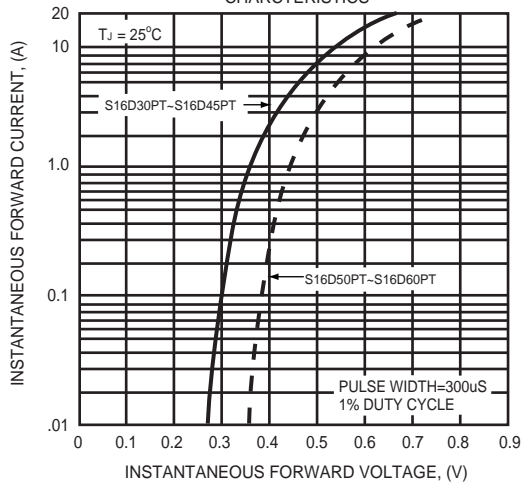


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

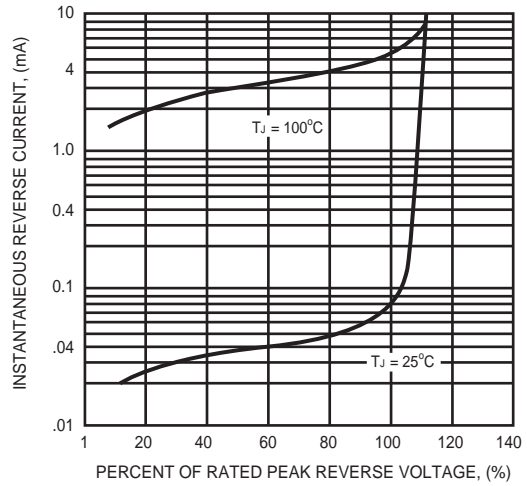


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

