



CHENMKO ENTERPRISE CO.,LTD

Lead free devices

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 30 - 60 Volts CURRENT 16 Amperes

**S16D30PT
THRU
S16D60PT**

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

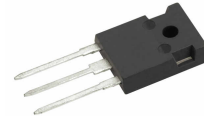
Terminals: Lead solderable per MIL-STD-750, Method 2026

Polarity: As marked

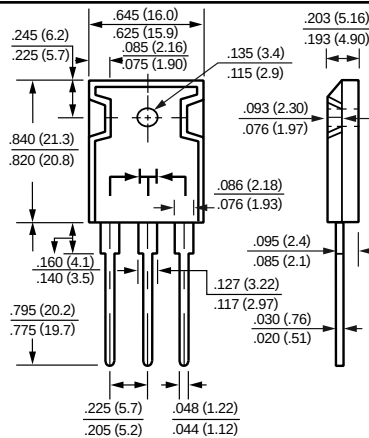
Weight: 5.6 grams (Approximately)

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%.



TO-247(TO-3P)



Dimensions in inches and (millimeters) TO-247(TO-3P)

MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	S16D30PT	S16D35PT	S16D40PT	S16D45PT	S16D50PT	S16D60PT	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	200						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	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	T _C = 25°C	I _R	5.0						mAmps
rated DC blocking voltage per leg (NOTE 2)	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.

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RATING CHARACTERISTIC CURVES (S16D30PT THRU S16D60PT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

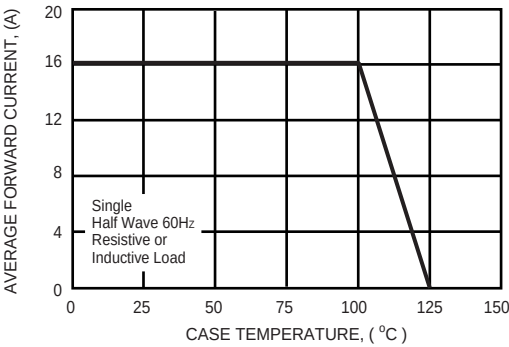


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

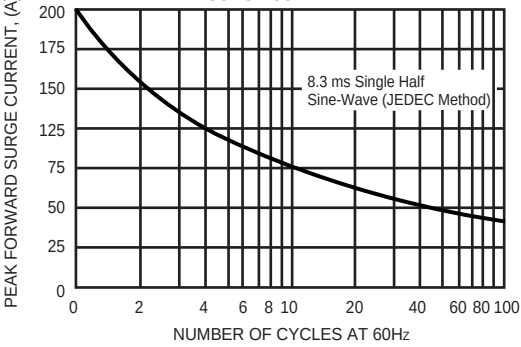


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

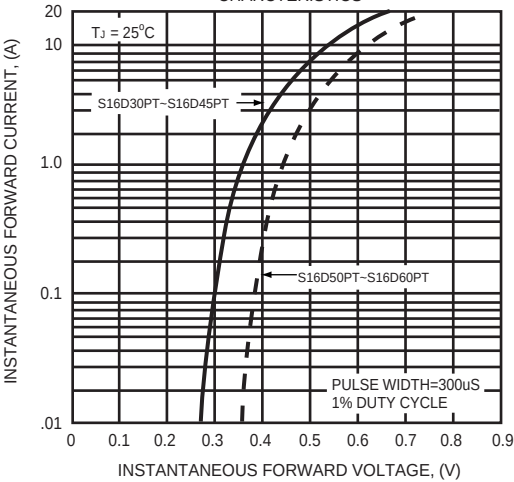


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

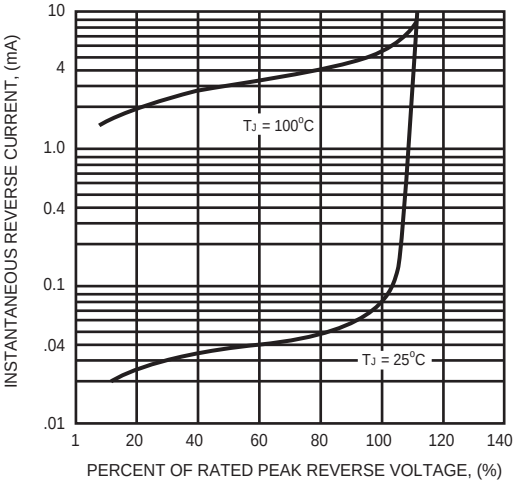


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

