CHENMKO ENTERPRISE CO.,LTD

SCHOTTKY BARRIER RECTIFIER

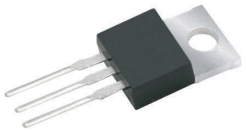
VOLTAGE RANGE 70 - 100 Volts CURRENT 16 Amperes

S16C70PT
THRU
S16C100PT

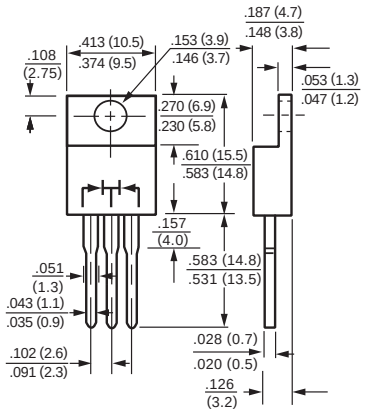
Lead free devices

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



TO-220



Dimensions in inches and (millimeters)

TO-220

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)

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 RATINGES (At T_A = 25°C unless otherwise noted)

RATINGS	SYMBOL	S16C70PT	S16C80PT	S16C90PT	S16C100PT	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	70	80	90	100	Volts
Maximum RMS Voltage	V_{RMS}	49	56	63	70	Volts
Maximum DC Blocking Voltage	V_{DC}	70	80	90	100	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}	150				Amps
Typical thermal resistance per leg (NOTE 1)	$R_{\theta JC}$	2.5				°C / W
Operating and Storage Temperature Range	T_J, T_{STG}	-60 to +150				°C

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

CHARACTERISTICS		SYMBOL	S16C70PT	S16C80PT	S16C90PT	S16C100PT	UNITS
Maximum Instantaneous Forward Voltage at 8.0 A DC		V_F	0.75		0.85		Volts
Maximum instantaneous reverse current at rated DC blocking voltage per leg (NOTE 2)	T_C = 25°C	I_R	5.0				mAmps
	T_C = 125°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 (S16C70PT THRU S16C100PT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

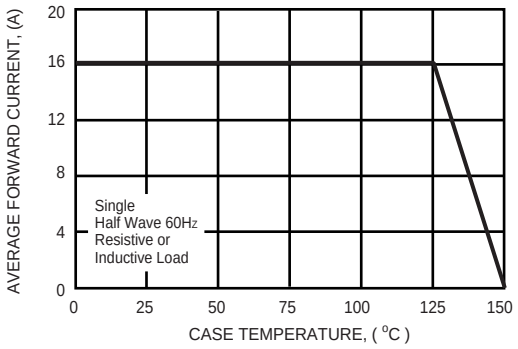


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

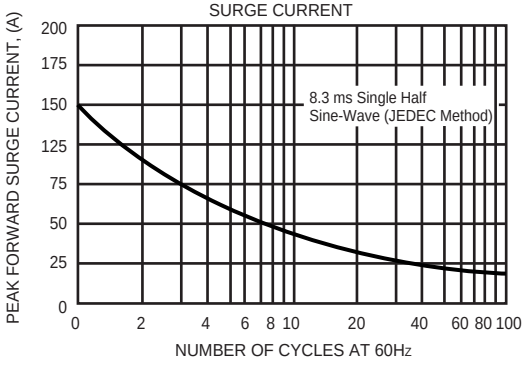


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARCTERISTICS

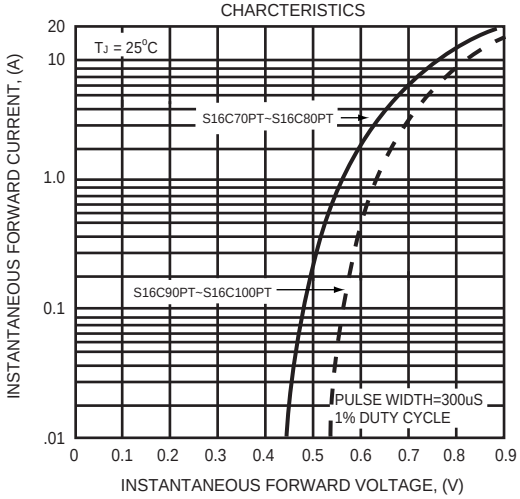


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

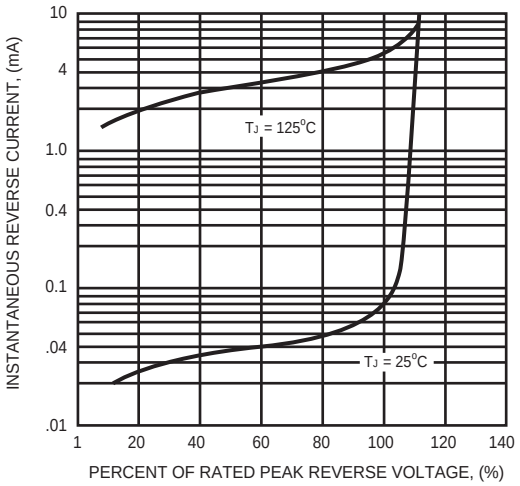


FIG. 5 - TYPICAL JUNCTION CAPACITANCE