CHENMKO ENTERPRISE CO.,LTD

Lead free devices

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 30 - 60 Volts CURRENT 5 Amperes

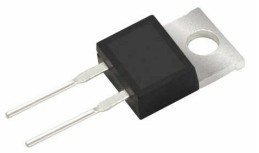
S05A30PT

THRU

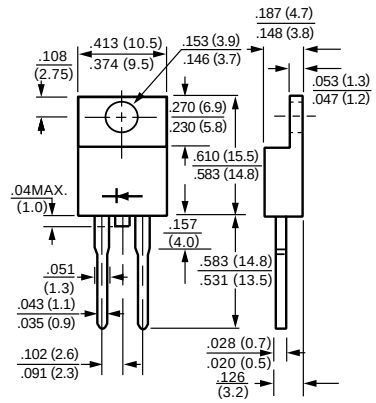
S05A60PT

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-220A



Dimensions in inches and (millimeters)

TO-220A

MECHANICAL DATA

Case: JEDEC TO-220A molded plastic
Terminals: Lead solderable per MIL-STD-750, Method 2026
Polarity: As marked
Weight: 1.81 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	S05A30PT	S05A35PT	S05A40PT	S05A45PT	S05A50PT	S05A60PT	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	5.0						Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	125						Amps
Typical thermal resistance per leg (NOTE 1)	$R_{\theta JC}$	5.0						°C / W
Operating and Storage Temperature Range	T_J, T_{STG}	-60 to +125						°C

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

CHARACTERISTICS		SYMBOL	S05A30PT	S05A35PT	S05A40PT	S05A45PT	S05A50PT	S05A60PT	UNITS
Maximum Instantaneous Forward Voltage at 5.0 A DC		V_F	0.55				0.65		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 = 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 " P " = Case Positive, Suffix " R " = Case Negative.

RATING CHARACTERISTIC CURVES (S05A30PT THRU S05A60PT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

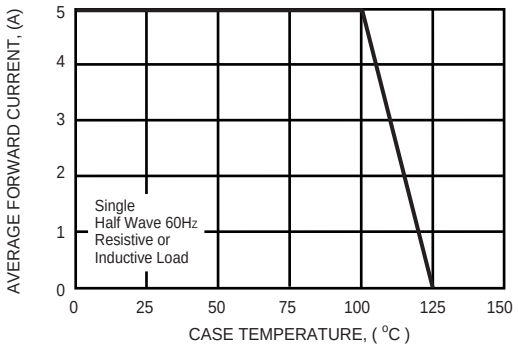


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

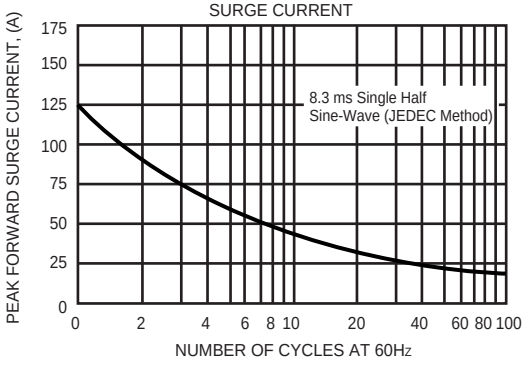


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARCTERISTICS

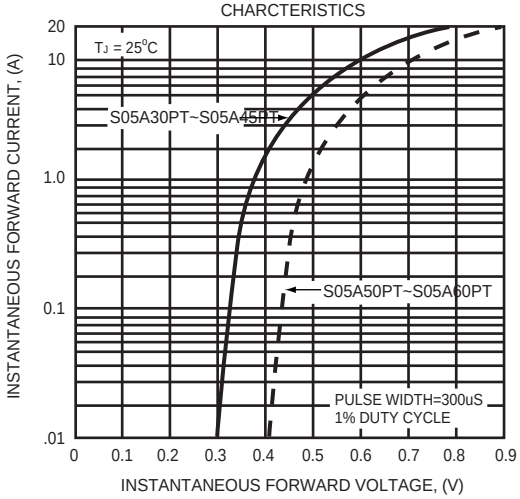


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

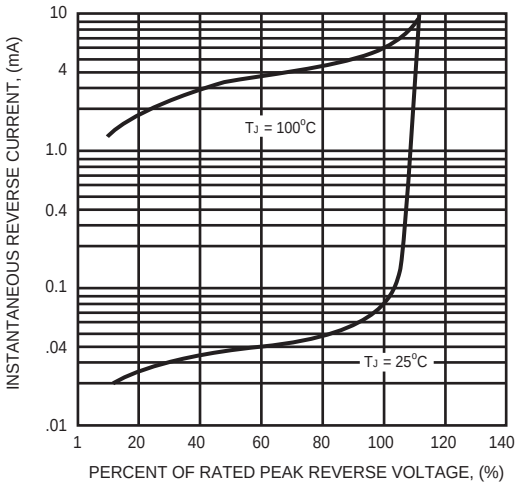


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

