



CHENMKO ENTERPRISE CO.,LTD

Lead free devices

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 30 - 60 Volts CURRENT 20 Amperes

S20C30PT

THRU

S20C60PT

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

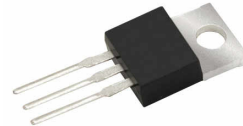
MECHANICAL DATA

Case: JEDEC TO-220 molded plastic

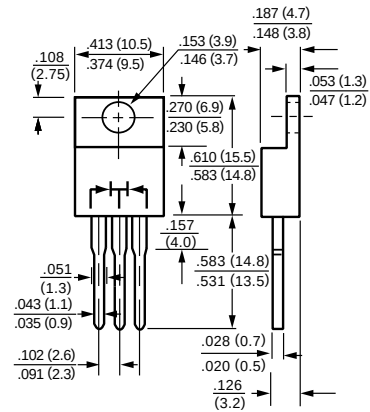
Terminals: Lead solderable per MIL-STD-750, Method 2026

Polarity: As marked

Weight: 2.24 grams (Approximately)



TO-220



Dimensions in inches and (millimeters)

TO-220

MAXIMUM RATINGS (At $T_A = 25^{\circ}\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	S20C30PT	S20C35PT	S20C40PT	S20C45PT	S20C50PT	S20C60PT	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	20.0						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)	$R_{\theta JC}$	2.2						$^{\circ}\text{C} / \text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-60 to +125						$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS (At $T_A = 25^{\circ}\text{C}$ unless otherwise noted)

CHARACTERISTICS		SYMBOL	S20C30PT	S20C35PT	S20C40PT	S20C45PT	S20C50PT	S20C60PT	UNITS
Maximum Instantaneous Forward Voltage at 10.0 A DC		V _F	0.55					0.65	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 (S20C30PT THRU S20C60PT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

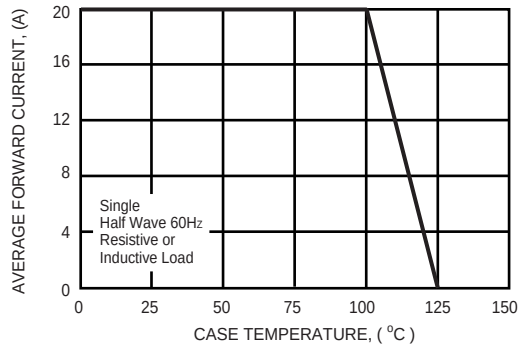


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

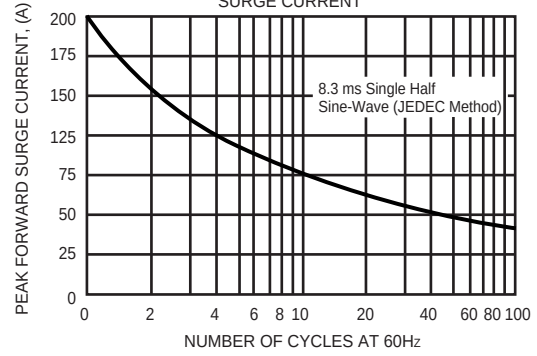


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

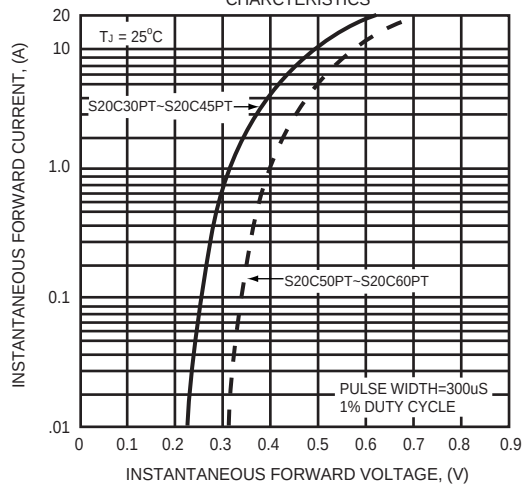


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

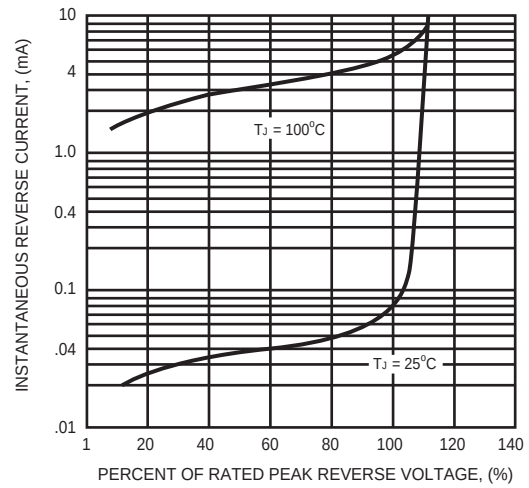


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

