



CHENMKO ENTERPRISE CO.,LTD

**U20C05PT
THRU
U20C60PT**

Lead free devices

ULTRA FAST RECTIFIER

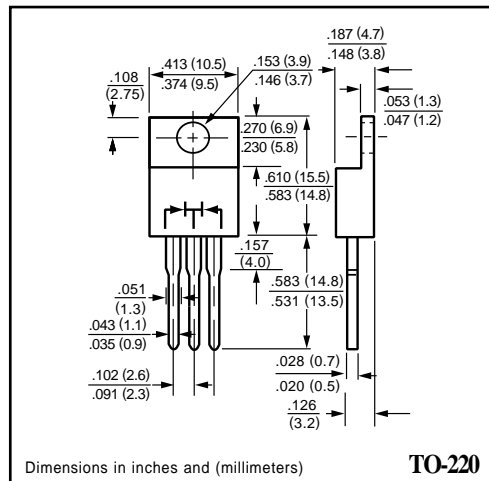
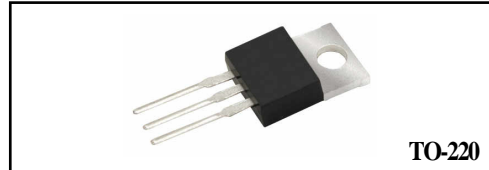
VOLTAGE RANGE 50 - 600 Volts CURRENT 20 Amperes

FEATURES

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * Dual rectifier construction, positive centertap
- * Glass passivated chip junctions
- * Low power loss
- * Low forward voltage, high current capability
- * High surge current capability
- * Ultra fast recovery times for high efficiency
- * High temperature soldering guaranteed : 260°C/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC TO-220 molded plastic
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 RATINGS (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	U20C05PT	U20C10PT	U20C15PT	U20C20PT	U20C30PT	U20C40PT	U20C50PT	U20C60PT	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	150	200	300	400	500	600	Volts
Maximum RMS Voltage	V _{RMS}	35	70	105	140	210	280	350	420	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	300	400	500	600	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 Junction capacitance per leg (NOTE 1)	C _J	120				70				pF
Typical thermal resistance (NOTE 2)	R _{θJC}	2.2								°C / W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150								°C

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

CHARACTERISTICS	SYMBOL	U20C05PT	U20C10PT	U20C15PT	U20C20PT	U20C30PT	U20C40PT	U20C50PT	U20C60PT	UNITS
Maximum Instantaneous Forward Voltage at 10.0 A DC	V _F	0.975			1.30		1.50			Volts
Maximum DC reverse current at rated DC blocking voltage per leg	I _R	10.0								uAmps
		500								
Maximum reverse recovery time (NOTE 3) per leg	t _{rr}	35				50				nS

- NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
2. Thermal resistance from junction to case per leg mounted on heatsink
3. Reverse recovery test conditions : I_F = 0.5 A, I_r = -1.0 A, I_{rr} = -0.25 A.

RATING CHARACTERISTIC CURVES (U20C05PT THRU U20C60PT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

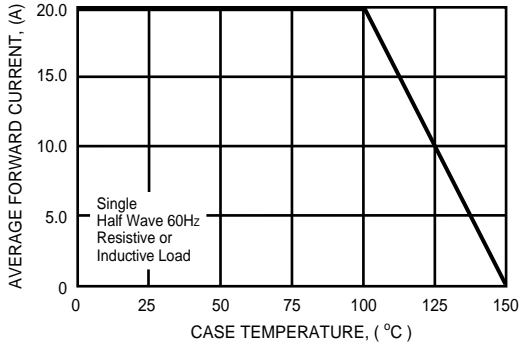


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

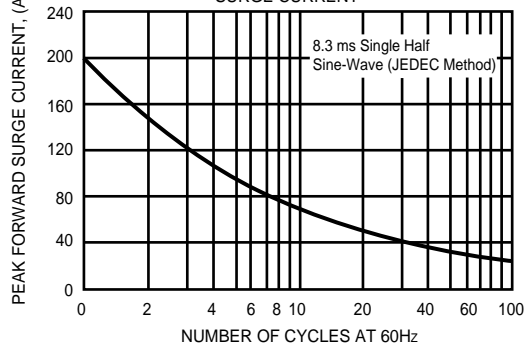


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

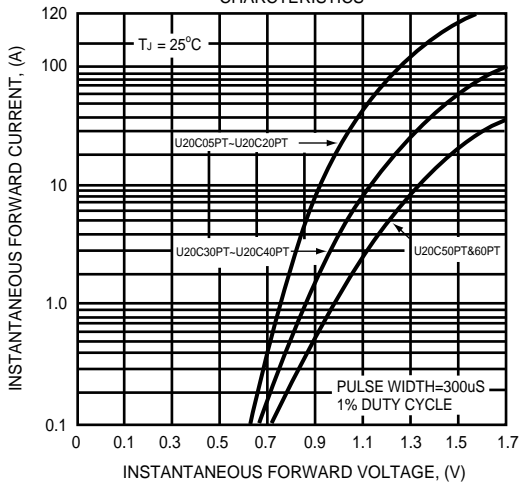


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

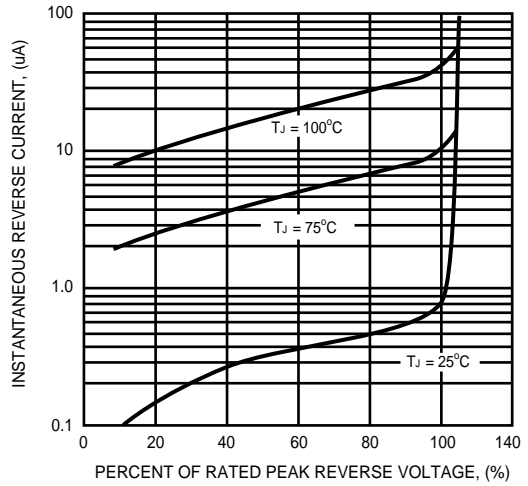


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

