



CHENMKO ENTERPRISE CO.,LTD

Lead free devices

ULTRA FAST RECTIFIER

VOLTAGE RANGE 50 - 600 Volts CURRENT 16 Amperes

U16C05PT

THRU

U16C60PT

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

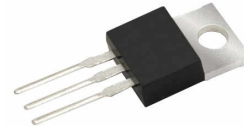
MECHANICAL DATA

Case: JEDEC TO-220 molded plastic

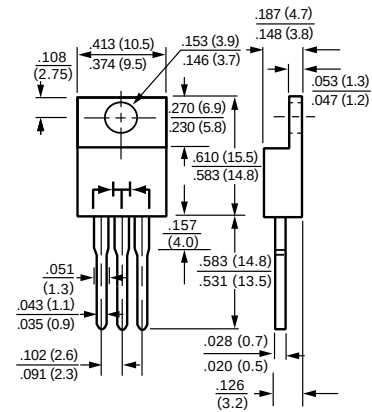
Terminals: Lead solderable per MIL-STD-750, Method 2026

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	U16C05PT	U16C10PT	U16C15PT	U16C20PT	U16C30PT	U16C40PT	U16C50PT	U16C60PT	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	150	200	300	400	500	600	Volts
Maximum RMS Voltage	VRMS	35	70	105	140	210	280	350	420	Volts
Maximum DC Blocking Voltage	VDC	50	100	150	200	300	400	500	600	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	150								Amps
Typical Junction capacitance per leg (NOTE 1)	CJ	120				70				pF
Typical thermal resistance (NOTE 2)	R θJC	2.5								°C / W
Operating and Storage Temperature Range	TJ, TSTG	-65 to +150								°C

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

CHARACTERISTICS		SYMBOL	U16C05PT	U16C10PT	U16C15PT	U16C20PT	U16C30PT	U16C40PT	U16C50PT	U16C60PT	UNITS
Maximum Instantaneous Forward Voltage at 8.0 A DC		V _F	0.975				1.30		1.50		Volts
Maximum DC reverse current at rated DC blocking voltage per leg	T _C = 25°C	I _R	10.0								uAmps
	T _C = 100°C		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 : $I_F = 0.5 \text{ A}$, $I_R = -1.0 \text{ A}$, $I_{rr} = -0.25 \text{ A}$.
4. Suffix " C " = Common Cathod, Suffix " A " = Common Anode, Suffix " D " = Double.

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RATING CHARACTERISTIC CURVES (U16C05PT THRU U16C60PT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

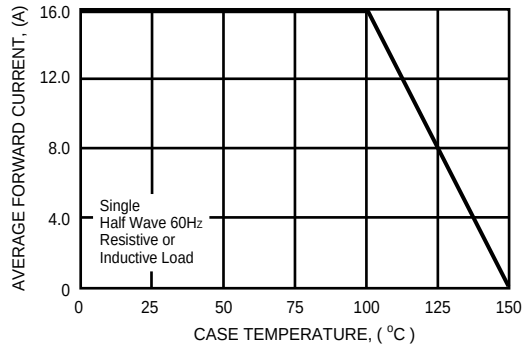


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

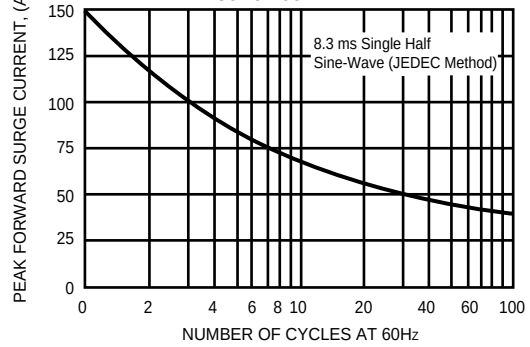


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

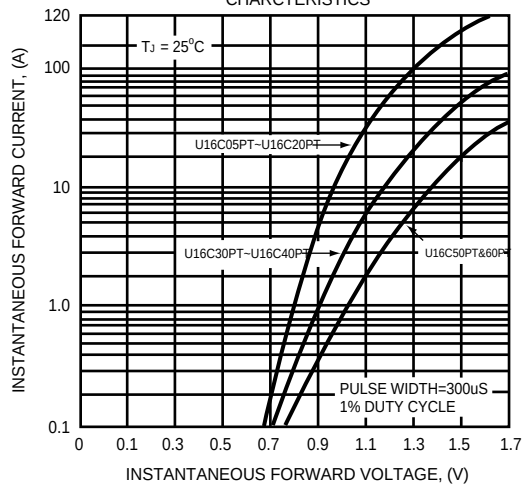


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

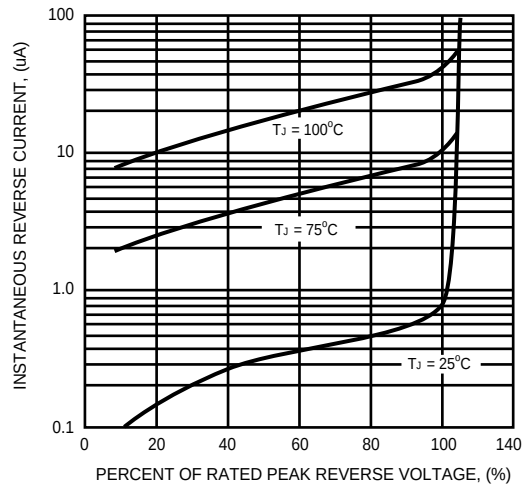


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

