



CHENMKO ENTERPRISE CO.,LTD

Lead free devices

FAST RECOVERY RECTIFIER

VOLTAGE RANGE 50 - 600 Volts CURRENT 6 Amperes

F06C05PT

THRU

F06C60PT

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
- * Fast recovery times for high efficiency
- * High temperature soldering guaranteed : 260°C/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC TO-220 molded plastic

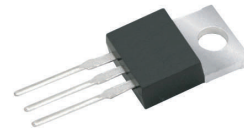
Terminals: Lead solderable per MIL-STD-750, Method 2026

Polarity: As marked

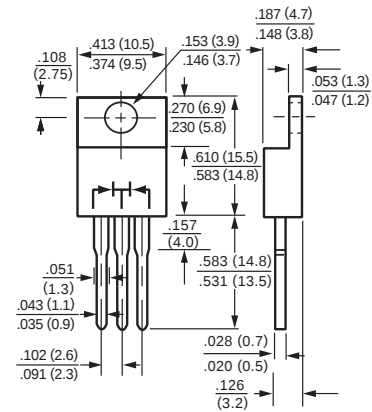
Weight: 2.24 grams (Approximately)

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%.



TO-220



Dimensions in inches and (millimeters)

TO-220

MAXIMUM RATINGS (At Ta = 25°C unless otherwise noted)

RATINGS	SYMBOL	F06C05PT	F06C10PT	F06C15PT	F06C20PT	F06C30PT	F06C40PT	F06C50PT	F06C60PT	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	6.0								Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	50								Amps
Typical Junction capacitance per leg (NOTE 1)	CJ	55				30				pF
Typical thermal resistance (NOTE 2)	R θJC	5.0								°C / W
Operating and Storage Temperature Range	TJ, TSTG	-65 to +175								°C

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

CHARACTERISTICS		SYMBOL	F06C05PT	F06C10PT	F06C15PT	F06C20PT	F06C30PT	F06C40PT	F06C50PT	F06C60PT	UNITS
Maximum Instantaneous Forward Voltage at 3.0 A DC		V _F	1.30								Volts
Maximum DC reverse current at rated DC blocking voltage per leg	T _C = 25°C	I _R	5.0								uAmps
	T _C = 100°C		70								
Maximum reverse recovery time (NOTE 3) per leg		trr	150						250		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 : IF = 0.5 A, IR = -1.0 A, IRR = -0.25 A.
4. Suffix " C " = Common Cathod, Suffix " A " = Common Anode, Suffix " D " = Double.

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RATING CHARACTERISTIC CURVES (F06C05PT THRU F06C60PT)

FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

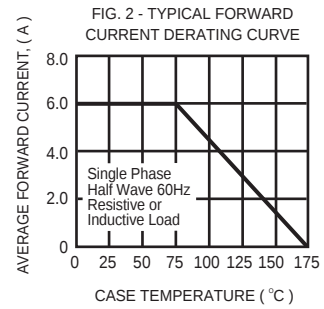
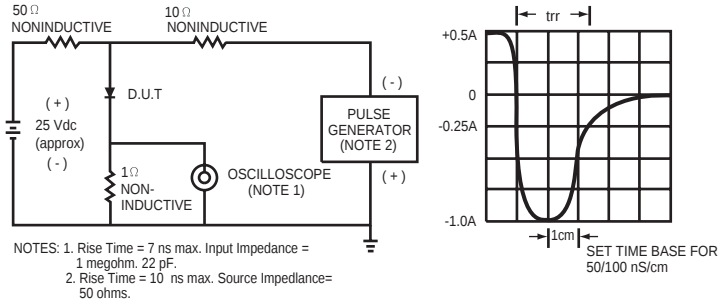


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

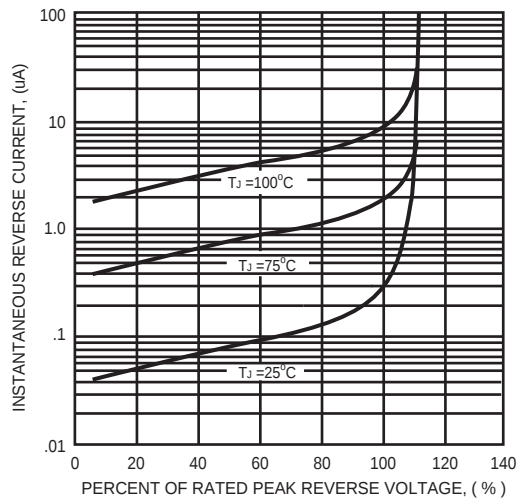


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

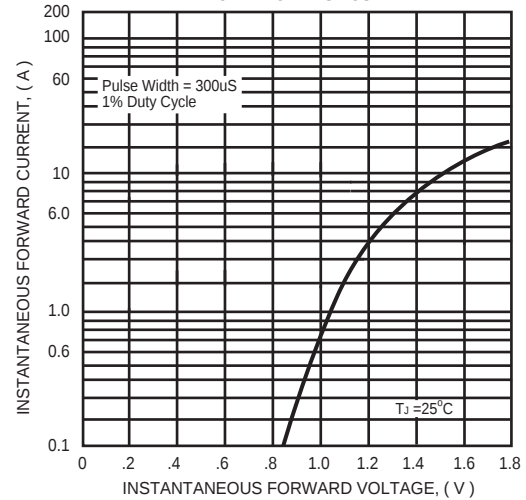


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

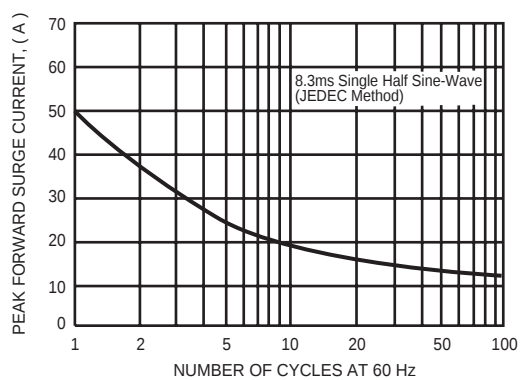


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

