



CHENMKO ENTERPRISE CO.,LTD

FAST RECOVERY RECTIFIER

VOLTAGE RANGE 50 - 200 Volts CURRENT 20 Amperes

Halogens free devices

F20C05GP

THRU

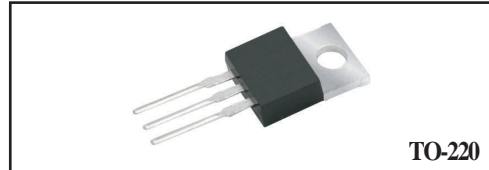
F20C20GP

FEATURES

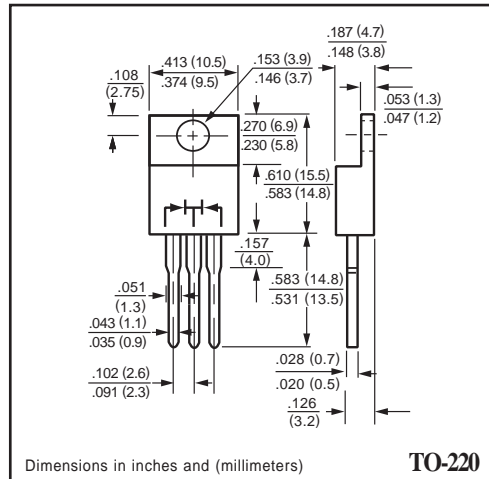
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * Dual rectifier construction, positive centertap
- * Glass passivated chip junctions
- * Low power loss
- * Low forward voltage, high current capability
- * High surge current capability
- * Fast recovery times for high 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)



TO-220



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	F20C05GP	F20C10GP	F20C15GP	F20C20GP	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	150	200	Volts
Maximum RMS Voltage	V _{RMS}	35	70	105	140	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	Volts
Maximum Average Forward Rectified Current(per total device)	I _O	20.0				Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	175				Amps
Typical Junction capacitance per leg (NOTE 1)	C _J	55				pF
Typical thermal resistance (NOTE 2)	R _{θJC}	2.5				°C / W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +175				°C

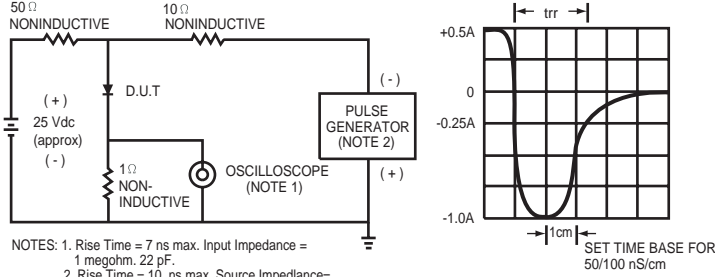
ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	F20C05GP	F20C10GP	F20C15GP	F20C20GP	UNITS
Maximum Instantaneous Forward Voltage at 10 A DC	V _F	1.30				Volts
Maximum DC reverse current at rated DC blocking voltage per leg	I _R	10.0				uAmps
		200				
Maximum reverse recovery time (NOTE 3) per leg	t _{rr}	150				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 (F20C05GP THRU F20C20GP)

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



NOTES: 1. Rise Time = 7 ns max. Input Impedance = 1 megohm, 22 pF.
2. Rise Time = 10 ns max. Source Impedance = 50 ohms.

FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

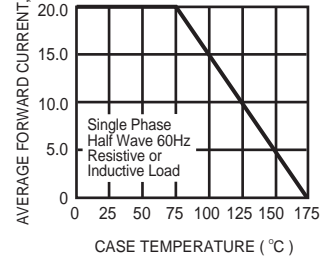


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

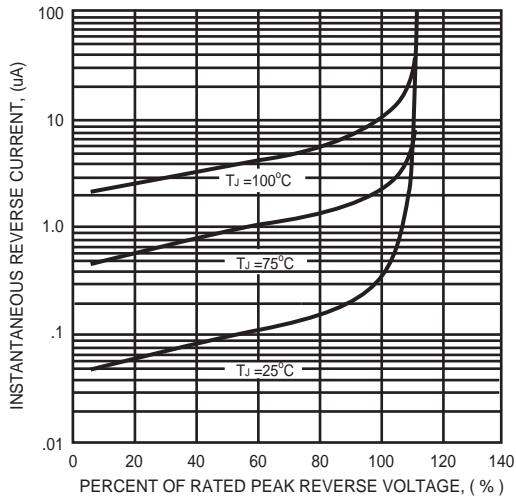


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

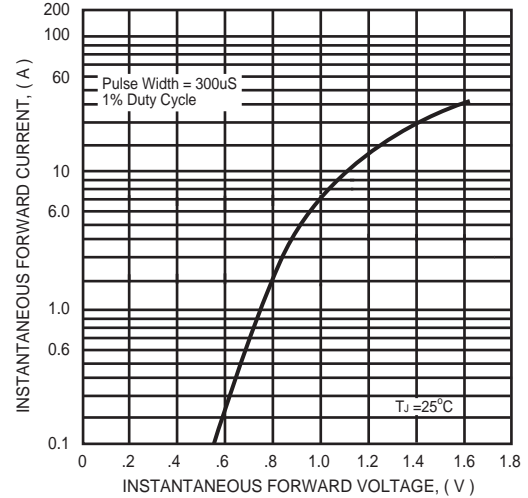


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

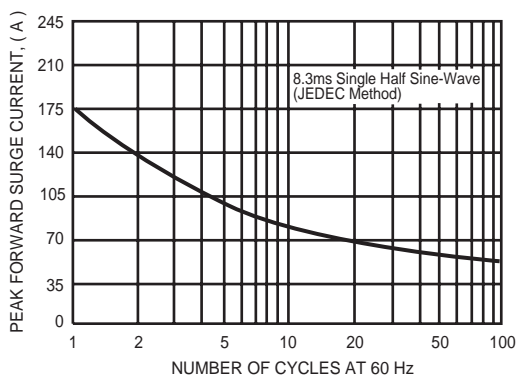


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

