

RECTRON

SEMICONDUCTOR

TECHNICAL SPECIFICATION

**IFR801
THRU
IFR807**

FAST RECOVERY

GLASS PASSIVATED RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 8.0 Amperes

FEATURES

- * Fast switching
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * High surge capability
- * High reliability

MECHANICAL DATA

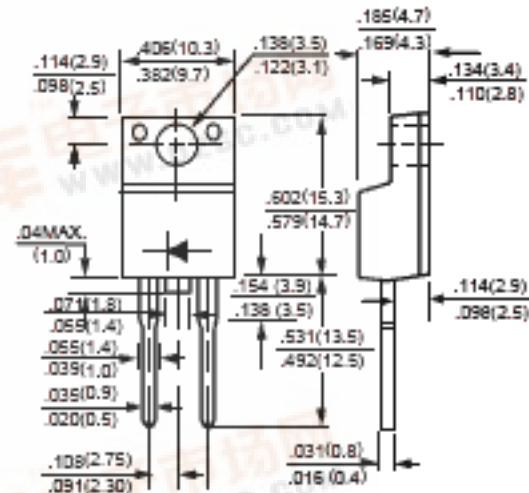
- * Case: ITO-220A molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 2.24 grams
- * Polarity: As marking

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%.



ITO-220A



Dimensions in inches and (millimeters)

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

RATINGS	SYMBOL	IFR801	IFR802	IFR803	IFR804	IFR805	IFR806	IFR807	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{OC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at $T_C = 75^\circ\text{C}$	I_O	8.0							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 (Note 3)	$R_{\theta JC}$	3							$^\circ\text{C/W}$
Typical Junction Capacitance (Note 2)	C_j	50							pF
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$

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

CHARACTERISTICS	SYMBOL	IFR801	IFR802	IFR803	IFR804	IFR805	IFR806	IFR807	UNITS
Maximum Instantaneous Forward Voltage at 8.0A DC	V _F	1.3							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage T _A = 25°C	I _R	10							uAmps
Maximum Full Load Reverse Current Average, Full Cycle at T _C = 100°C		150							uAmps
Maximum Reverse Recovery Time (Note 1)	t _{rr}	150			250		500		nSec

NOTES: 1. Test Conditions: $I_F = 0.5A$, $I_R = -1.0A$, $I_{RR} = -0.25A$
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts
3. Thermal Resistance Junction to Case.
4. Suffix IFM for Reverse Polarity.

RATING AND CHARACTERISTIC CURVES (IFR801 THRU IFR807)

