SEMICONDUCTOR

DATA SHEET

FG2001FCT~FG2007FCT

FAST RECOVERY
GLASS PASSIVATED RECTIFIER
VOLTAGE RANGE 50 to 1000 Volts CURRENT 20.0 Amperes

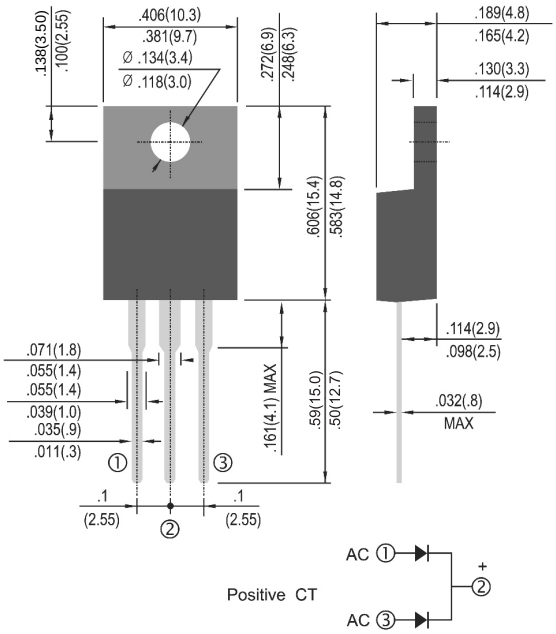
FEATURES

- Fast switching
- Low leakage
- Low forward voltage drop
- High current capability
- High surge capability
- High reliability
- High temperature soldering : 260 °C / 10 seconds at terminals
  Pb free product at available : 99% Sn above meet RoHS environment substance directive request.

MECHANICAL DATA

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

ITO-220AB Unit:inch(mm)



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 T_A = 25°C unless otherwise noted)

RATINGS	SYMBOL	FG 2001FCT	FG 2002FCT	FG 2003FCT	FG 2004FCT	FG 2005FCT	FG 2006FCT	FG 2007FCT	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_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at TC = 75°C	I_O	20.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150							Amps
Typical Thermal Resistance (Note 3)	$R\theta_{JC}$	3							°C/W
Typical Junction Capacitance (Note 2)	CJ	50							pF
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C

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

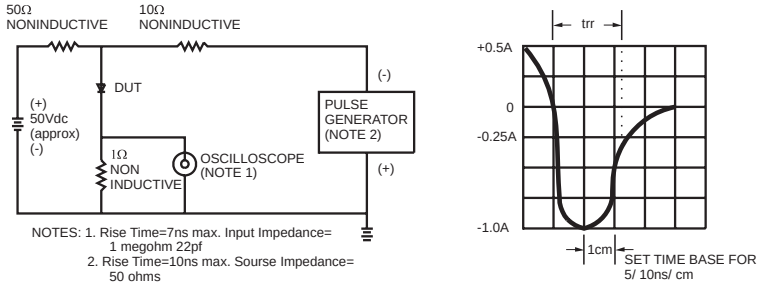
CHARACTERISTICS	SYMBOL	FG 2001FCT	FG 2002FCT	FG 2003FCT	FG 2004FCT	FG 2005FCT	FG 2006FCT	FG 2007FCT	UNITS
Maximum Instantaneous Forward Voltage at 10.0A DC	V_F	1.3							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage TA = 25°C	I_R	10							uAmps
Maximum Full Load Reverse Current Average, Full Cycle at TC = 100°C		150							uAmps
Maximum Reverse Recovery Time (Note 1)	trr	150				250	500		nSec

NOTES : 1. Test Conditions: IF = 0.5A, IR = -1.0A, IRR = -0.25A
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts
3. Thermal Resistance Junction to Case.
4. Suffix "R" for Reverse Polarity.

RATINGS AND CHARACTERISTIC CURVES

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



NOTES: 1. Rise Time=7ns max. Input Impedance= 1 megohm 22pf
2. Rise Time=10ns max. Sourse Impedance= 50 ohms

FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

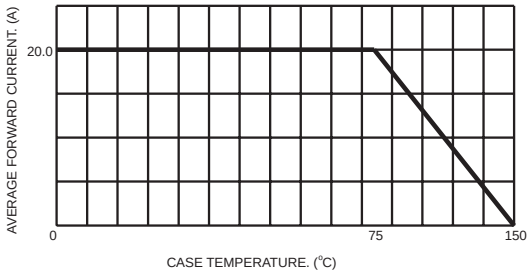


FIG.3- TYPICAL REVERSE CHARACTERISTICS PER LEG

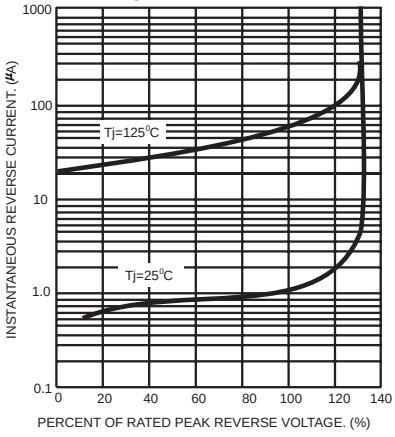


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

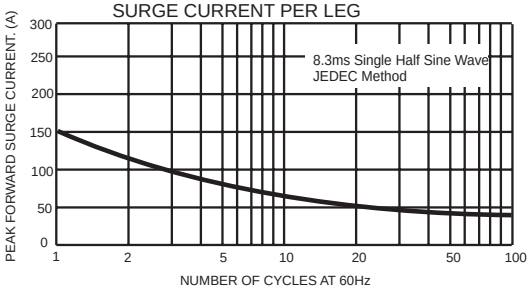


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

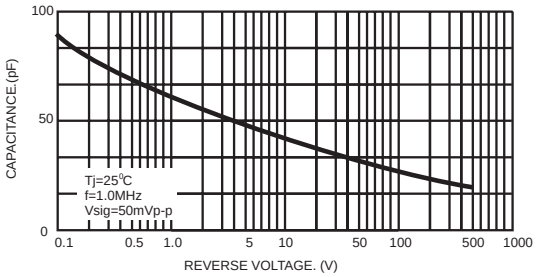
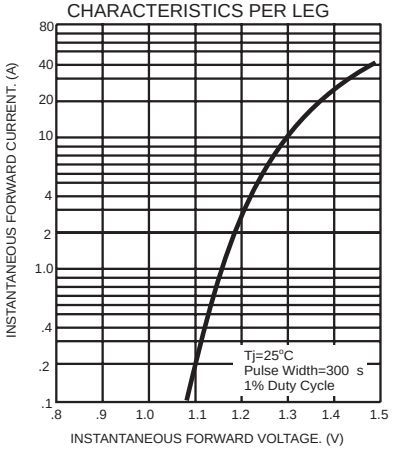


FIG.6- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG



TO/ITO220 包装规范

Packing 包装	Dimension 尺寸	Qty 数量	Picture 图示
Bag/Tube 袋/管装	527mm*33mm*7mm	50 PCS	
Inner box 内盒	555mm*140mm*55mm	2000 PCS	 
Carton 外箱	575mm*285mm *155mm	8000 PCS	