



SEMICONDUCTOR

DATA SHEET

FG1001FCT~FG1007FCT

**FAST RECOVERY
GLASS PASSIVATED RECTIFIER
VOLTAGE RANGE 50 to 1000 Volts CURRENT 10.0 Amperes**



FEATURES

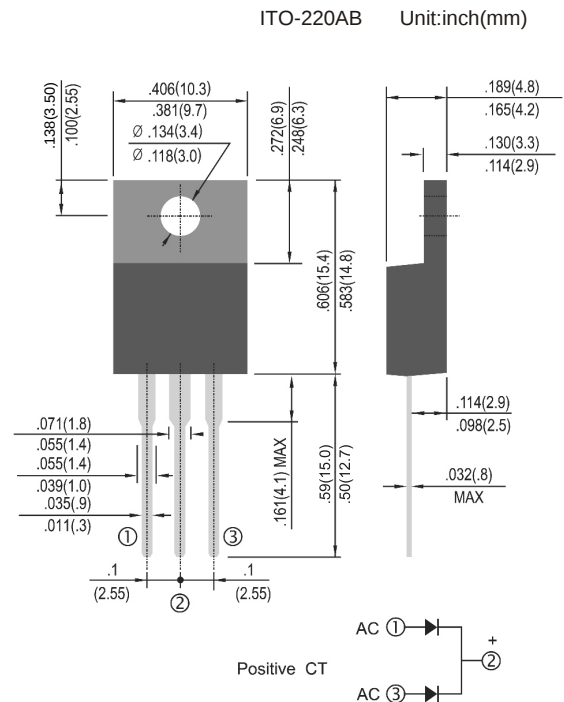
- Fast switching
- Low leakage
- Low forward voltage drop
- High current capability
- High surge capability
- High reliability
- High temperature soldering : 260 °C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request.

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

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	FG1001FCT	FG1002FCT	FG1003FCT	FG1004FCT	FG1005FCT	FG1006FCT	FG1007FCT	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at TC = 75°C	IO	10.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	125							Amps
Typical Thermal Resistance (Note 3)	RθJC	3							°C/ W
Typical Junction Capacitance (Note 2)	CJ	50							pF
Operating and Storage Temperature Range	TJ, T STG	-55 to +150							°C

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

CHARACTERISTICS	SYMBOL	FG1001FCT	FG1002FCT	FG1003FCT	FG1004FCT	FG1005FCT	FG1006FCT	FG1007FCT	UNITS
Maximum Instantaneous Forward Voltage at 5.0 A DC	VF	1.3							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage TA = 25 °C	IR	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- MAXIMUM FORWARD CURRENT DERATING CURVE

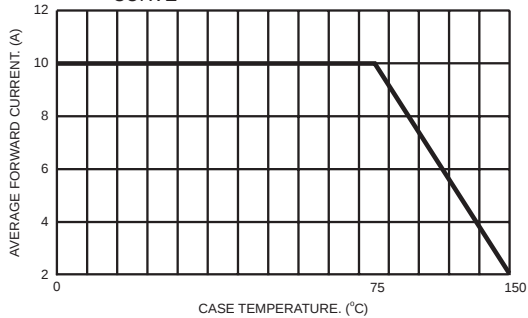


FIG.2- TYPICAL REVERSE CHARACTERISTICS PER LEG

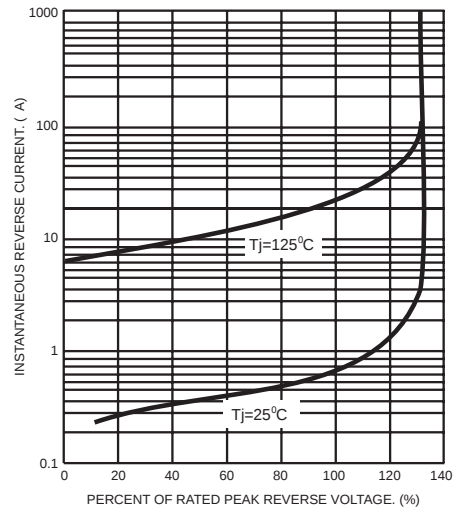


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

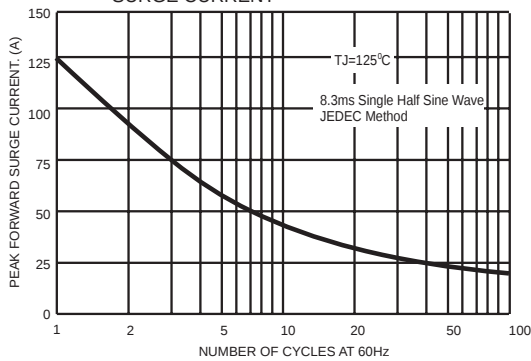


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

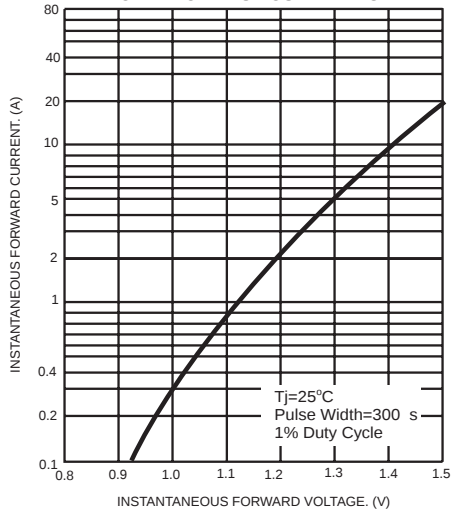


FIG.4- TYPICAL JUNCTION CAPACITANCE

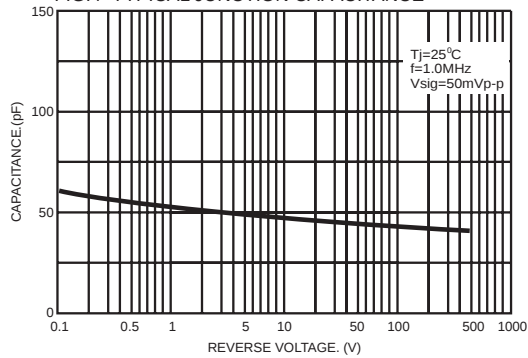
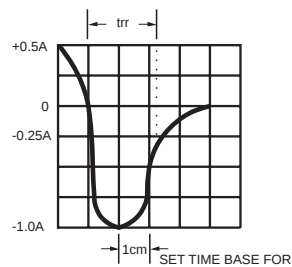
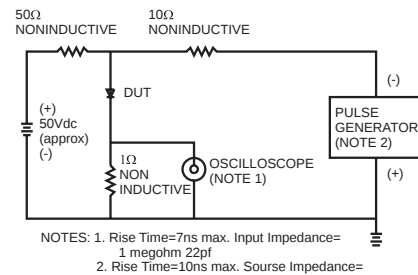


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM





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	 标签贴盒盖正面中心处
Carton 外箱	575mm*285mm *155mm	8000 PCS	 外箱两侧贴标签位置