

DATA SHEET

UF1600FCT ~ UF1608FCT

ISOLATION ULTRAFST SWITCHING RECTIFIER

VOLTAGE- 50 to 800 Volts CURRENT - 16.0 Amperes

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O . Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228.
- Low power loss,high efficiency.
- Low forward voltage, high current capability.
- High surge capacity.
- Ultra fast recovery times, high voltage.

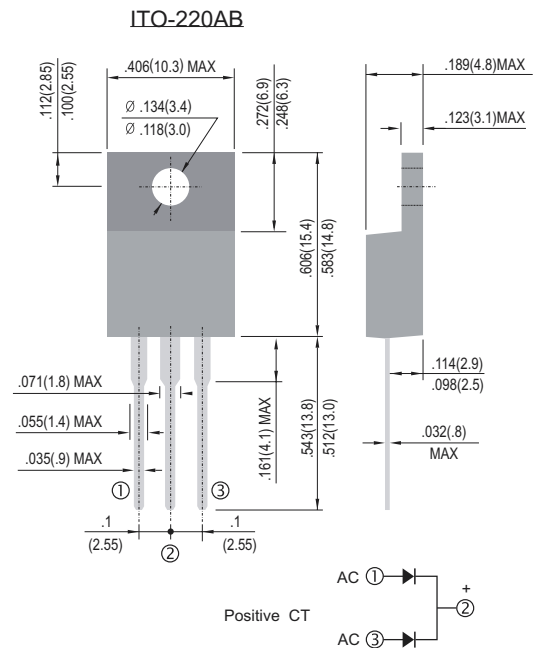
MECHANICAL DATA

Case: ITO-220AB molded plastic
 Terminals: Solder plated, solderable per MIL-STD-202, Method 208
 Polarity: As marked.
 Standard packaging: Any
 Weight: 0.08 ounce, 2.24 grams.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
 Single phase , half wave ,60Hz, resistive or inductive load.
 For capacitive load , derate current by 20%.

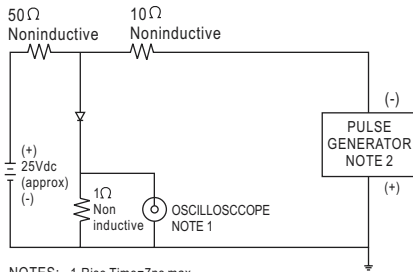
Unit: inch (mm)



	UF1600FCT	UF1601FCT	UF1602FCT	UF1603FCT	UF1604FCT	UF1606FCT	UF1608FCT	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	300	400	600	800	V
Maximum RMS Voltage	35	70	140	210	280	420	560	V
Maximum DC Blocking Voltage	50	100	200	300	400	600	800	V
Maximum Average Forward Rectified Current at T _C =100°C	16.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	125							A
Maximum Instantaneous Forward Voltage at 8.0A per element	1.00		1.30		1.70			V
Maximum DC Reverse Current (Note 1) T _a = 25°C at Rated DC Blocking Voltage T _a =100°C	10			500				μA
Maximum Reverse Recovery Time (Note 1)	50			100				ns
Typical Junction Capacitance(Note 2)	170			130				pF
Typical thermal Resistance (Note 3) R _{θJA}	30.0							°C/W
Operating and Storage Temperature Range T _J ,T _{STG}	-65 to +150							°C

NOTES:1. Reverse Recovery Test Conditions: I_F=.5A, I_R=1A, I_{rr}=.25A
 2. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
 3. Thermal resistance from junction to ambient and from junction to lead length 0.375"(9.5mm) P.C.B. mounted

RATING AND CHARACTERISTIC CURVES



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

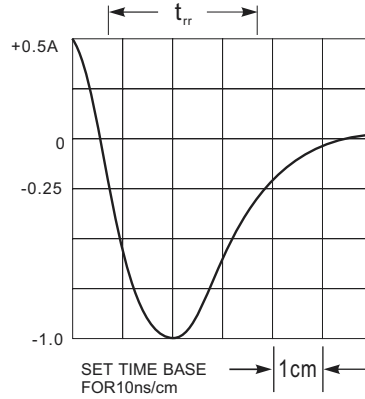


Fig.1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

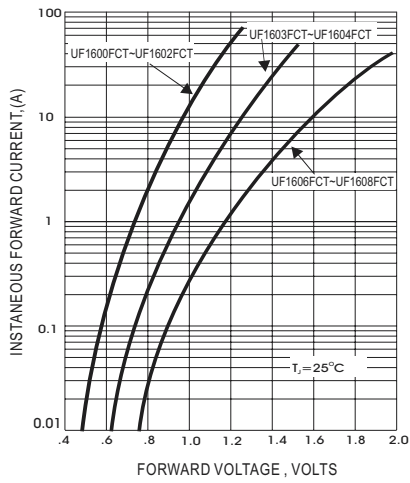


Fig. 2- FORWARD CHARACTERISTICS

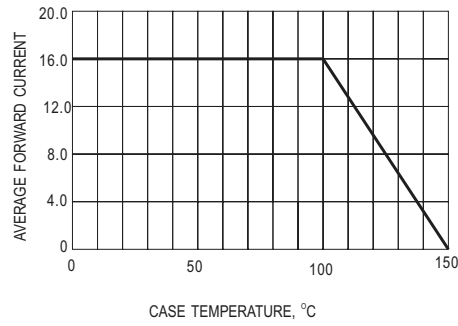


Fig.3- FORWARD CURRENT DERATING CURVE

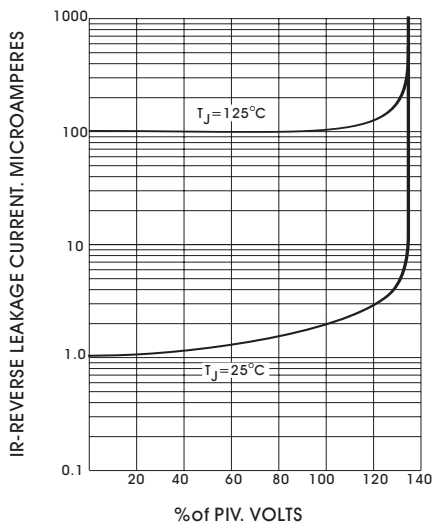


Fig.5- TYPICAL REVERSE CHARACTERISTICS

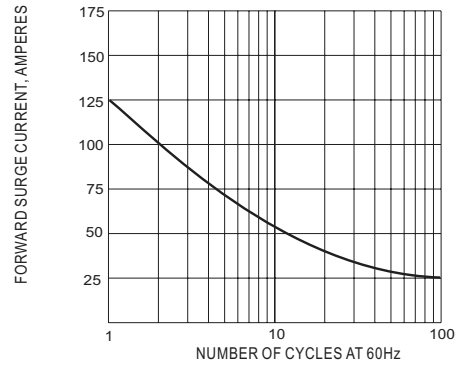


Fig.4- PEAK FORWARD SURGE CURRENT

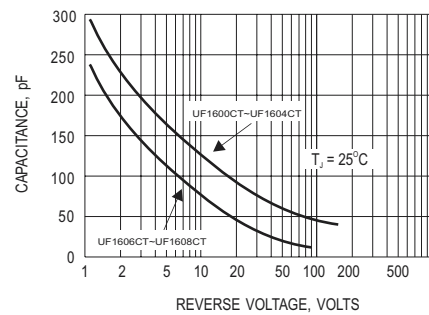


Fig.6- TYPICAL JUNCTION CAPACITANCE