UF1600FCT – UF1608FCT

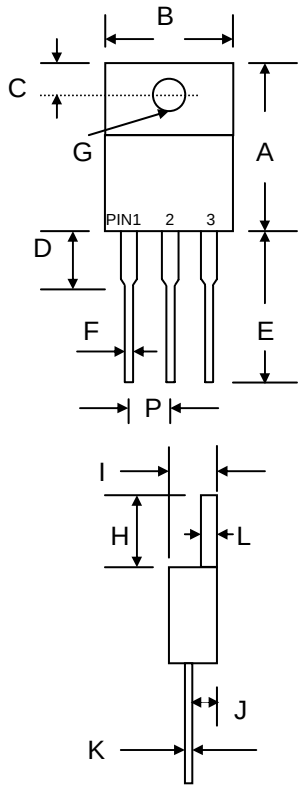
16A GLASS PASSIVATED DUAL ULTRAFAST RECTIFIER

Features

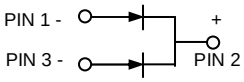
- Glass Passivated Die Construction
- Ultra-Fast Switching
- Low Forward Voltage Drop
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

Mechanical Data

- Case: ITO-220, Full Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 2.24 grams (approx.)
- Mounting Position: Any
- Mounting Torque: 11.5 cm-kg (10 in-lbs) Max.
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



ITO-220		
Dim	**Min**	**Max**
A	14.60	15.40
B	9.70	10.30
C	2.55	2.85
D	2.70	3.30
E	13.00	13.80
F	0.50	0.75
G	3.00 Ø	3.50 Ø
H	6.30	6.90
I	4.20	4.80
J	2.50	2.90
K	0.50	0.75
L	2.70	3.15
P	2.29	2.79
All Dimensions in mm		



Maximum Ratings and Electrical Characteristics @T_A=25℃ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	UF 1600FCT	UF 1601FCT	UF 1602FCT	UF 1603FCT	UF 1604FCT	UF 1606FCT	UF 1608FCT	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	300	400	600	800	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	210	280	420	560	V
Average Rectified Output Current @T_C = 105℃	I_O	16							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	125							A
Forward Voltage @I_F = 8.0A	V_{FM}	1.0			1.3		1.7		V
Peak Reverse Current @T_A = 25℃ At Rated DC Blocking Voltage @T_A = 125℃	I_{RM}	10 500							μA
Reverse Recovery Time (Note 1)	t_{rr}	50					100		nS
Typical Junction Capacitance (Note 2)	C_j	80					50		pF
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150							℃

Note: 1. Measured with IF = 0.5A, IR = 1.0A, IRR = 0.25A.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

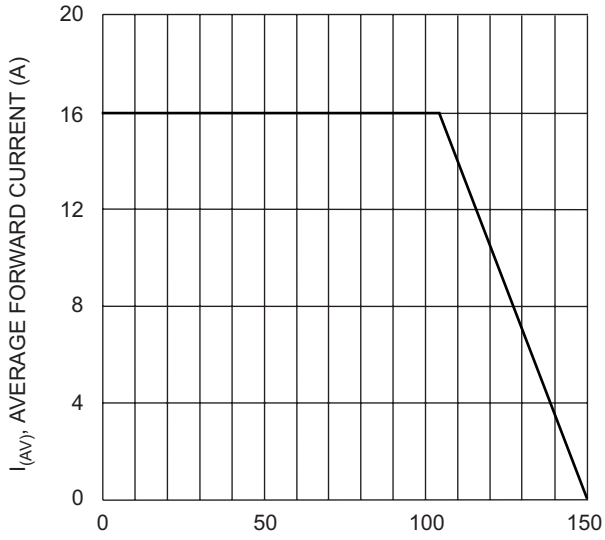


Fig. 1 Forward Current Derating Curve

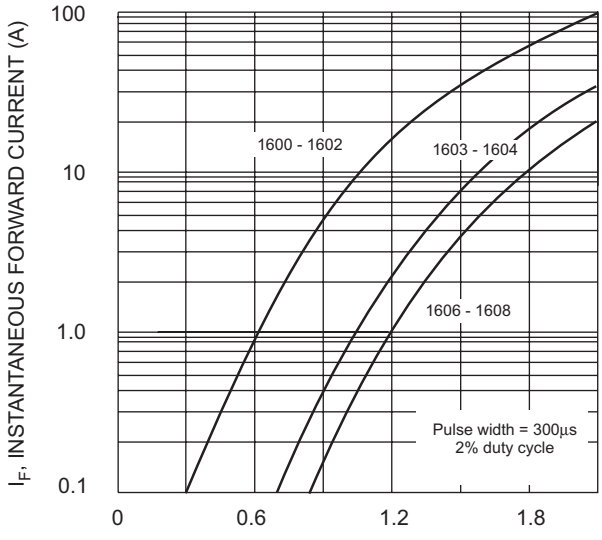


Fig. 2 Typical Forward Characteristics

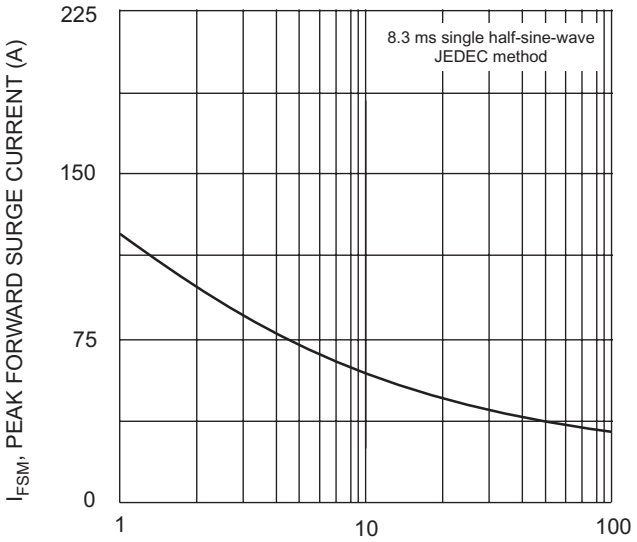


Fig. 3 Maximum Non-Repetitive Surge Current

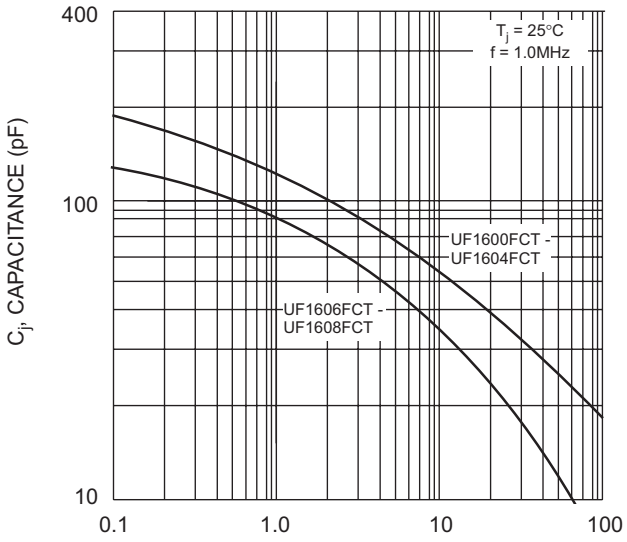
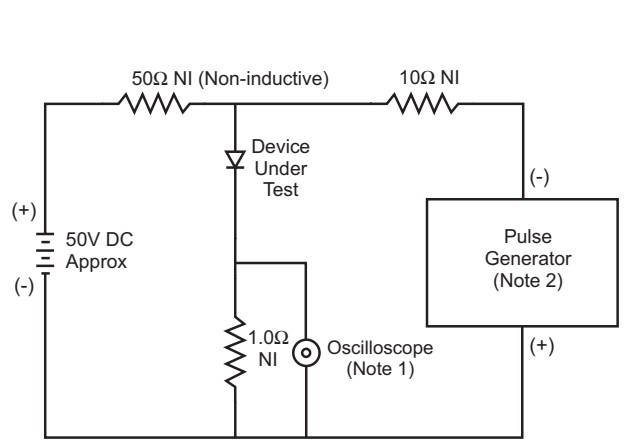


Fig. 4 Typical Junction Capacitance



Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
2. Rise Time = 10ns max. Input Impedance = 50Ω.

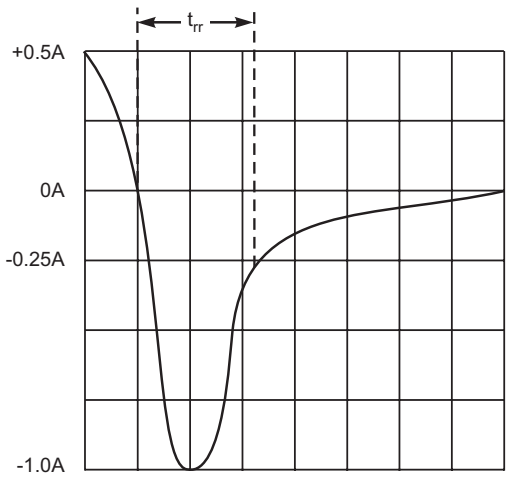
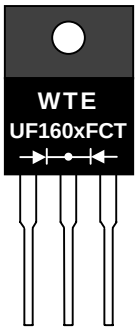


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

MARKING INFORMATION



WTE = Manufacturer's Logo
UF160xFCT = Device Number
x = 0, 1, 2, 3, 4, 6 or 8
Polarity = As Marked on Body

PACKAGING INFORMATION

BULK

Tube Size L x W x H (mm)	Quantity (PCS)	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
525 x 31 x 6	50	555 x 145 x 95	2,000	572 x 306 x 218	8,000	19.0

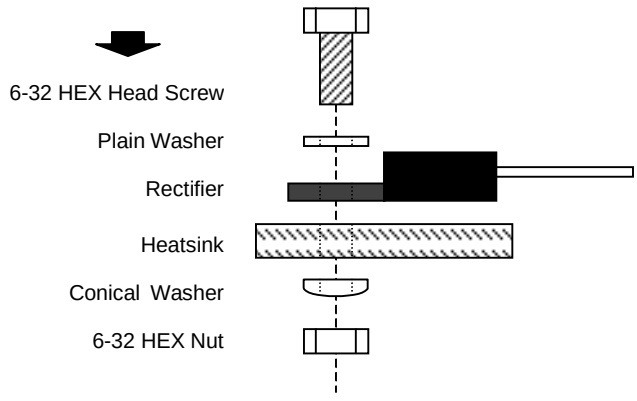
Note: 1. Anti-static tube, water clear color.

RECOMMENDED SCREW MOUNTING ARRANGEMENT

The full molded plastic package affords a major reduction of hardware as compared to a standard TO-220 package. However, precautions should be made in mounting procedure.

A conical washer should be used to apply proper force to the device. Screw should not be tightened with any type of air-forced torque or equipment that may cause crack on device package.

A layer of thermal grease or thermal pad in the interface will be considerably helpful for heat dissipation.



ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
UF1600FCT	ITO-220	50 Units/Tube
UF1601FCT	ITO-220	50 Units/Tube
UF1602FCT	ITO-220	50 Units/Tube
UF1603FCT	ITO-220	50 Units/Tube
UF1604FCT	ITO-220	50 Units/Tube
UF1606FCT	ITO-220	50 Units/Tube
UF1608FCT	ITO-220	50 Units/Tube

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, UF1600FCT-LF**.

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