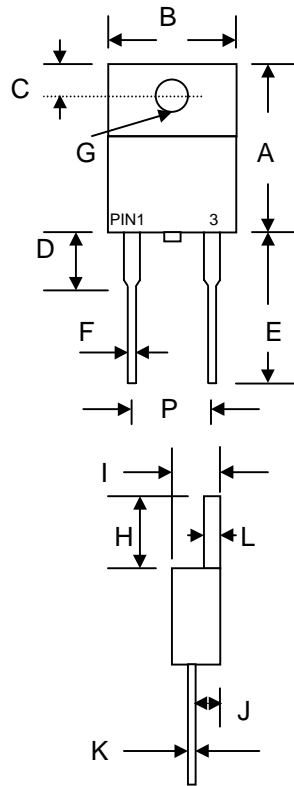


### Features

- 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-220A, 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-220A		
Dim	Min	Max
A	14.60	15.40
B	9.70	10.30
C	2.55	2.85
D	3.56	4.16
E	13.00	13.80
F	0.30	0.90
G	3.00 Ø	3.50 Ø
H	6.30	6.90
I	4.20	4.80
J	2.50	2.90
K	0.36	0.80
L	2.90	3.30
P	4.83	5.33
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics @<sub>T<sub>A</sub></sub>=25°C unless otherwise specified

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

Characteristic	Symbol	UF 1000F	UF 1001F	UF 1002F	UF 1003F	UF 1004F	UF 1006F	UF 1008F	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	50	100	200	300	400	600	800	V
Working Peak Reverse Voltage	$V_{RWM}$								
DC Blocking Voltage	$V_R$								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	210	280	420	560	V
Average Rectified Output Current @ <sub>T<sub>C</sub></sub> = 100°C	$I_O$	10							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	150							A
Forward Voltage @ <sub>I<sub>F</sub></sub> = 10A	$V_{FM}$	1.0		1.3		1.7		V	
Peak Reverse Current @ <sub>T<sub>A</sub></sub> = 25°C At Rated DC Blocking Voltage @ <sub>T<sub>A</sub></sub> = 125°C	$I_{RM}$	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							°C

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

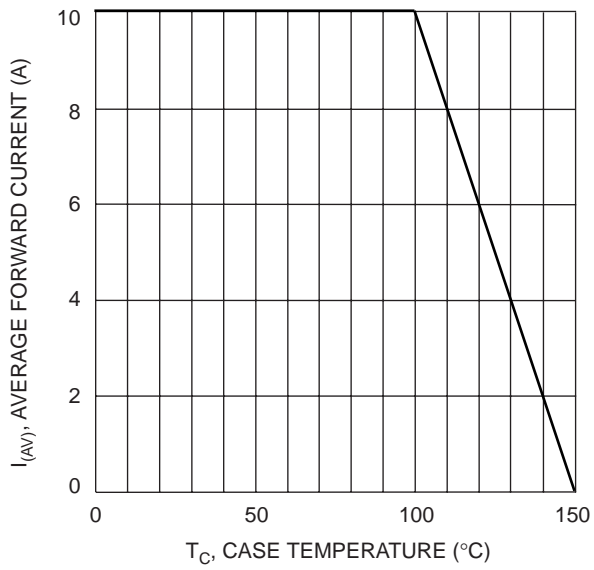


Fig. 1 Forward Current Derating Curve

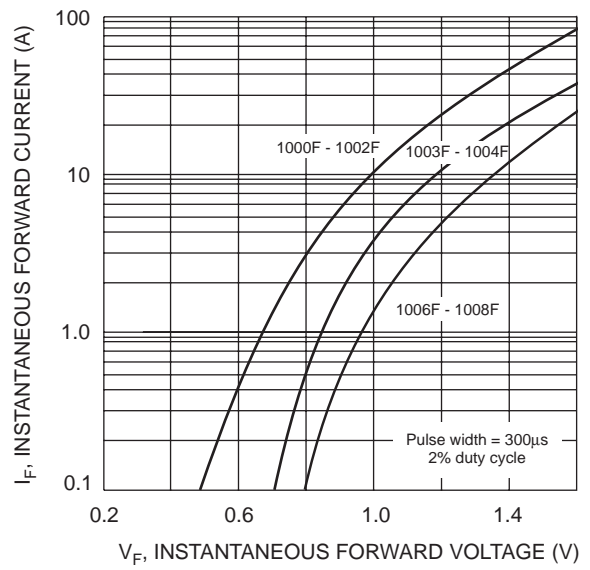


Fig. 2 Typical Forward Characteristics

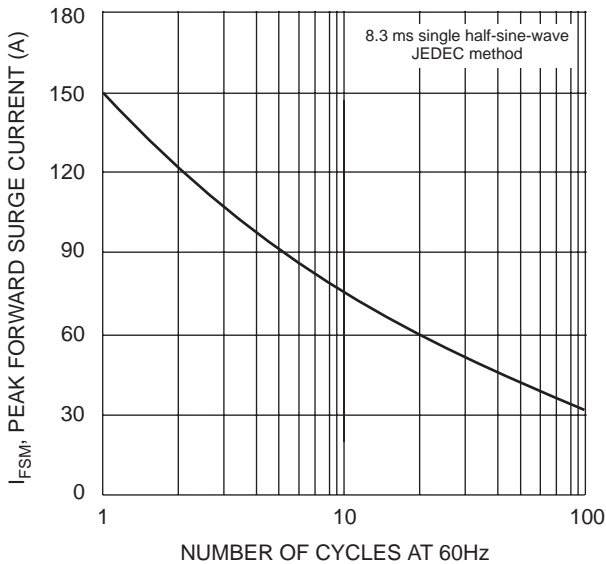


Fig. 3 Max Non-Repetitive Surge Current

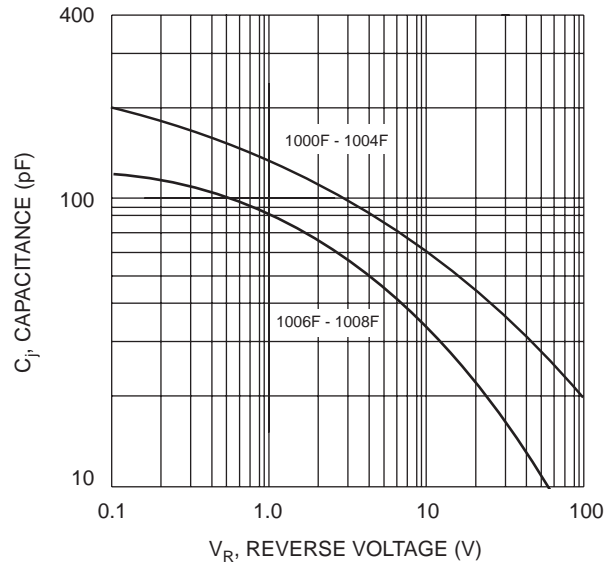
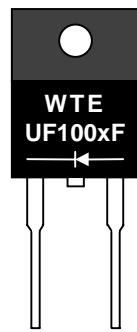


Fig. 4 Typical Junction Capacitance

## MARKING INFORMATION



WTE = Manufacturer's Logo  
 UF100xF = 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

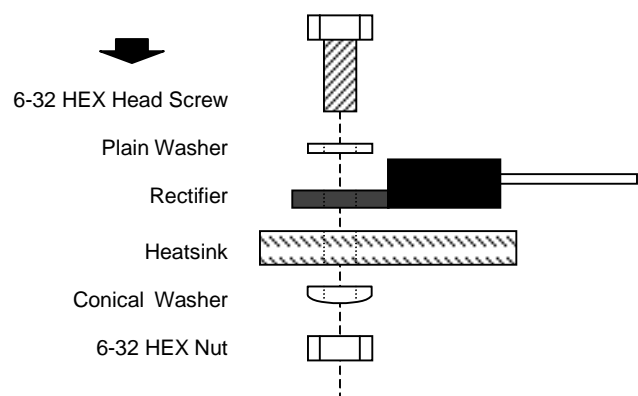
**Note:** 1. Anti-static tube, water clear color.

## 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
UF1000F	ITO-220A	50 Units/Tube
UF1001F	ITO-220A	50 Units/Tube
UF1002F	ITO-220A	50 Units/Tube
UF1003F	ITO-220A	50 Units/Tube
UF1004F	ITO-220A	50 Units/Tube
UF1006F	ITO-220A	50 Units/Tube
UF1008F	ITO-220A	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, UF1000F-LF.**

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**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

**Won-Top Electronics Co., Ltd.**

No. 44 Yu Kang North 3rd Road, Chine Chen Dist., Kaohsiung, Taiwan

**Phone:** 886-7-822-5408 or 886-7-822-5410

**Fax:** 886-7-822-5417

**Email:** sales@wontop.com

**Internet:** <http://www.wontop.com>

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