

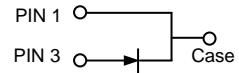
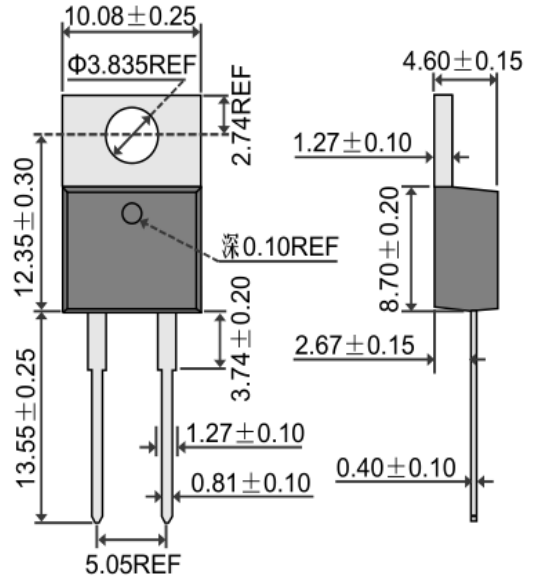
### Features

- Fred Chip Planar Construction
- UltraFast Switching,High Efficiency
- Low Power loss, High Efficiency
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability
- Classification 94V-O

### Mechanical Data

- Case:JEDEC TO-247AC,Molded Plasti
- Terminals:Pure tin Plated ,Lead free Solderable per
- MIL-STD-750, Method 2026
- Polarity: As marked
- Weight: 5.6 grams(approx)
- Mounting Position:Any

### TO-220AC



### Maximum Ratings and Electrical Characteristics @T<sub>A</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 1000	UF 1001	UF 1002	UF 1003	UF 1004	UF 1006	UF 1008	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	50	100	200	300	400	600	800	V
Working Peak Reverse Voltage	V <sub>RWM</sub>								
DC Blocking Voltage	V <sub>R</sub>								
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	210	280	420	560	V
Average Rectified Output Current @T <sub>C</sub> = 100°C	I <sub>O</sub>	10							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	150							A
Forward Voltage @I <sub>F</sub> = 10A	V <sub>FM</sub>	0.975			1.3		1.7	1.8	V
Peak Reverse Current @T <sub>A</sub> = 25°C	I <sub>RM</sub>	10							μA
At Rated DC Blocking Voltage @T <sub>A</sub> = 125°C		500							
Reverse Recovery Time (Note 1)	t <sub>rr</sub>	50					100		nS
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	80					50		pF
Thermal Resistance Junction to Ambient	R <sub>JA</sub>	73							°C/W
Thermal Resistance Junction to Case	R <sub>JC</sub>	3.0							
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150							°C

Note: 1. Measured with I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>RR</sub> = 0.25A.  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

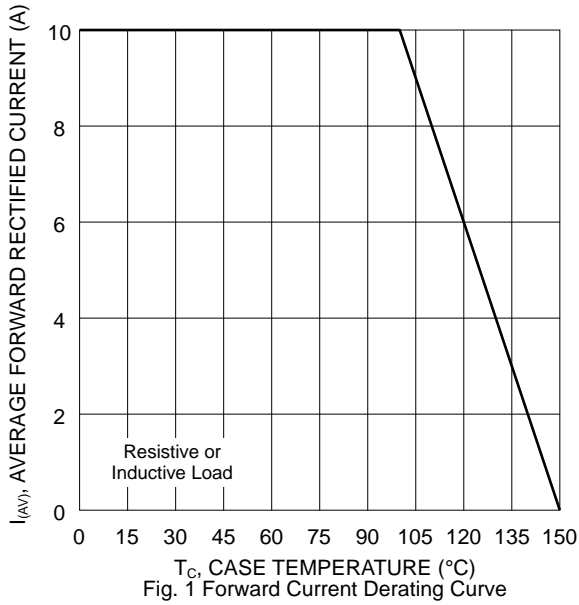


Fig. 1 Forward Current Derating Curve

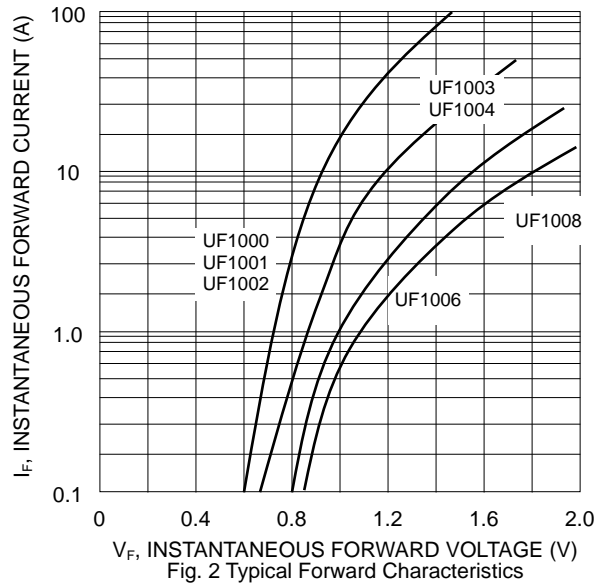


Fig. 2 Typical Forward Characteristics

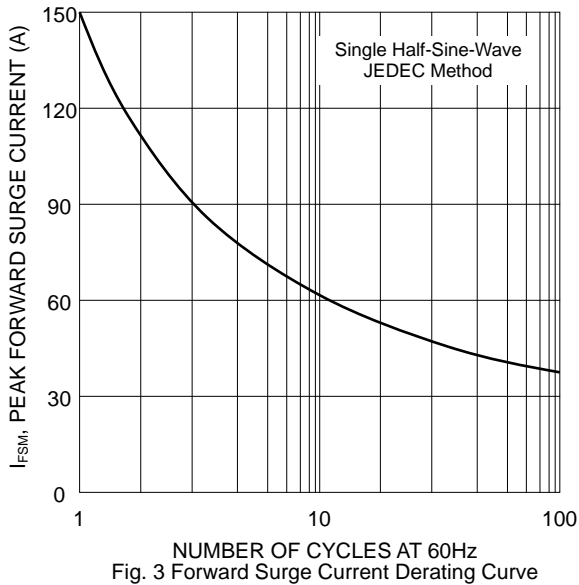


Fig. 3 Forward Surge Current Derating Curve

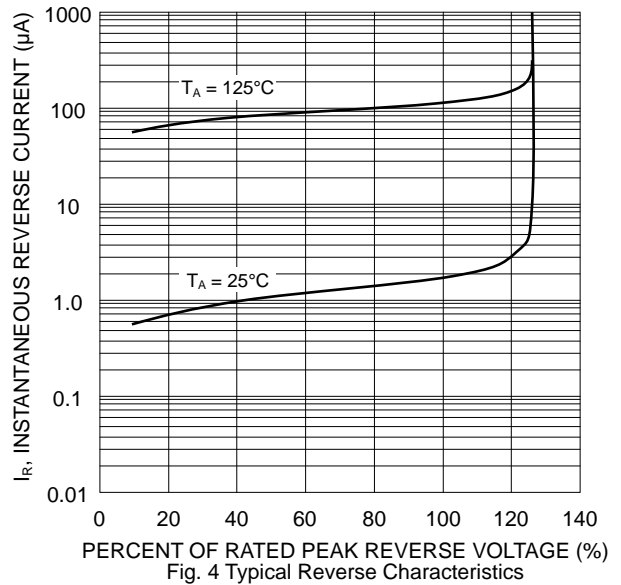


Fig. 4 Typical Reverse Characteristics

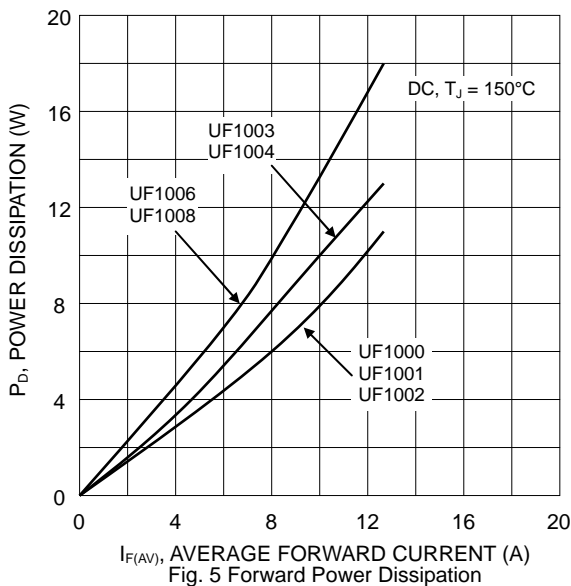


Fig. 5 Forward Power Dissipation

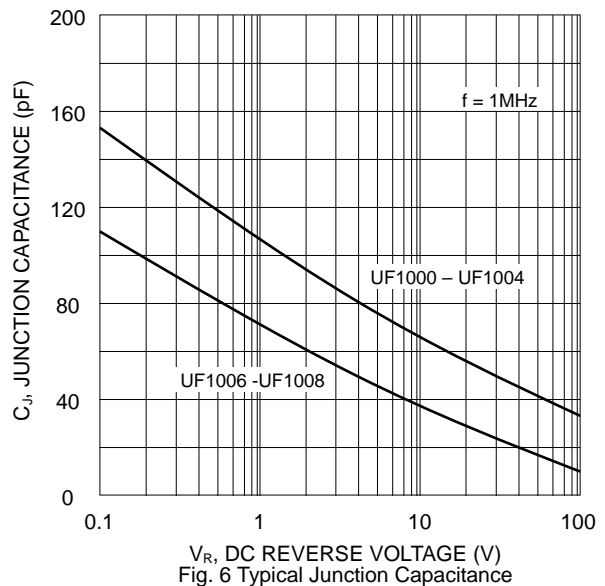
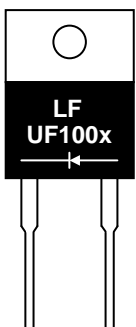


Fig. 6 Typical Junction Capacitance

## MARKING INFORMATION



UF100x = 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	558 x 150 x 40	1,000	570 x 235 x 170	5,000	11.85

## RECOMMENDED SCREW MOUNTING ARRANGEMENT

Recommended isolated mounting when screw is at heatsink potential. 4-40 hardware is used.

Screw should not be tightened with any type of air-forced torque or equipment that may cause high impact on device package. The insulating bushing inside the mounting hole will insure the screw threads do not contact the metal base.

The interface should apply a layer of thermal grease or a highly conductive thermal pad for better heat dissipation.

