



# DATA SHEET

## UF200 thru UF2010

### ULTRAFAST SWITCHING RECTIFIER

**VOLTAGE** 50 to 1000 Volts **CURRENT** 2.0 Amperes

**DO-15**

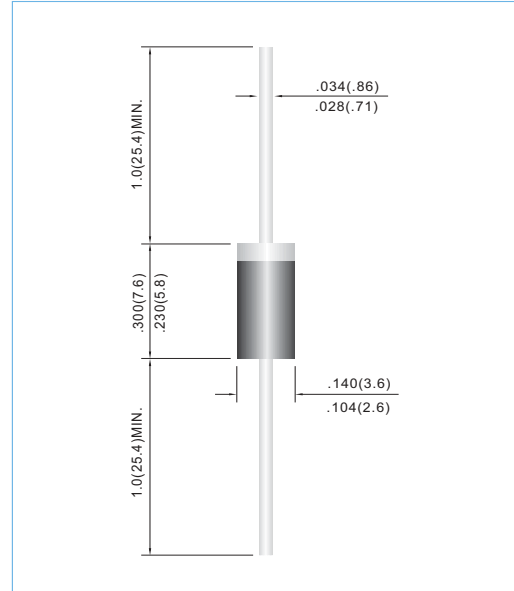
Unit: inch(mm)

#### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- Exceeds environmental standards of MIL-S-19500/228.
- Ultra Fast switching for high efficiency.
- Both normal and Pb free product are available :  
Normal : 80~95% Sn, 5~20% Pb  
Pb free: 98.5% Sn above

#### MECHANICAL DATA

Case: Molded plastic, DO-15  
Terminals: Axial leads, solderable per MIL-STD-202, Method 208  
Polarity: Band denotes cathode  
Mounting Position: Any  
Weight: 0.015 ounce, 0.4 gram



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

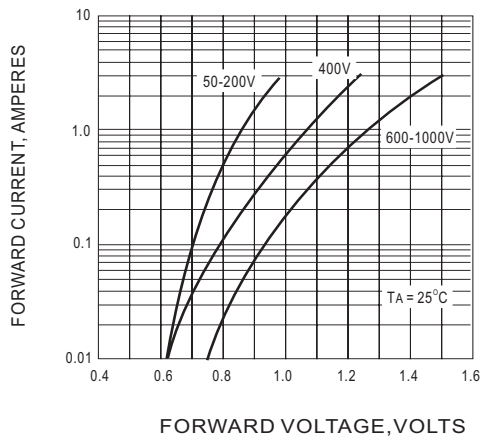
PARAMETER	SYMBOL	UF200	UF201	UF202	UF204	UF206	UF208	UF2010	UNITS	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V	
Maximum Average Forward Current at TA=55°C	I <sub>AV</sub>	2.0							A	
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I <sub>FSM</sub>	60							A	
Maximum Forward Voltage at 2.0A	V <sub>F</sub>	1.0		1.3		1.7		V		
Maximum DC Reverse Current at TA=25°C Rated DC Blocking Voltage TA=100°C	I <sub>R</sub>	10.0				100				uA
Typical Junction capacitance (Note 1)	C <sub>J</sub>	35							pF	
Typical Thermal Resistance(Note 2)	R <sub>θJA</sub>	40							°C / W	
Maximum Reverse Recovery Time (Note 3)	T <sub>RR</sub>	50				75				ns
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 TO +150							°C	

#### NOTES:

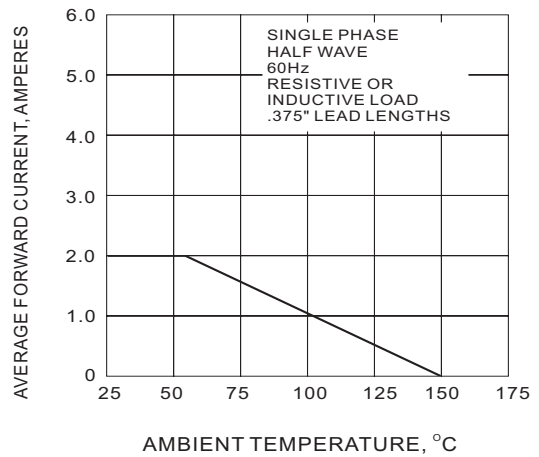
1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
2. Thermal Resistance from Junction to Ambient and from Junction to lead length 0.375"(9.5mm) P.C.B. mounted.
3. Reverse Recovery Time I<sub>F</sub>=.5A , I<sub>R</sub>=1A , I<sub>rr</sub>=.25A



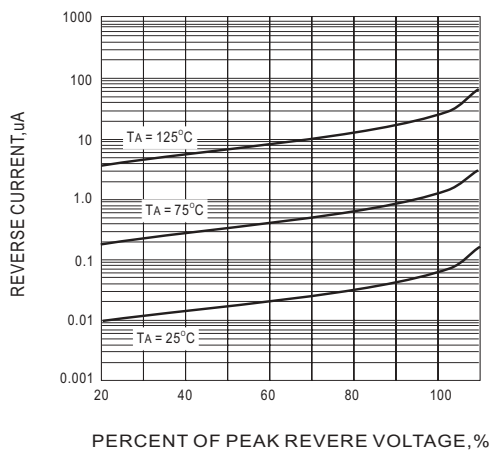
**RATING AND CHARACTERISTIC CURVES**



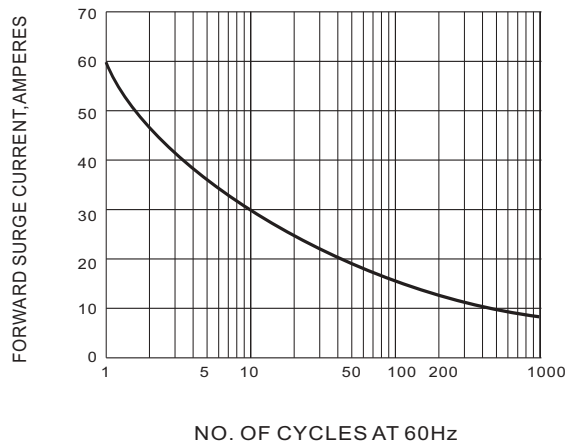
**Fig. 1 FORWARD CHARACTERISTICS**



**Fig. 2 FORWARD CURRENT DERATING CURVE**



**Fig. 3 TYPICAL REVERSE LEAKAGE CHARACTERISTICS**



**Fig. 4 PEAK FORWARD SURGE CURRENT**