

**ULTRA FAST RECTIFIERS**

REVERSE VOLTAGE - **50 to 1000** Volts  
FORWARD CURRENT - **2.0** Amperes

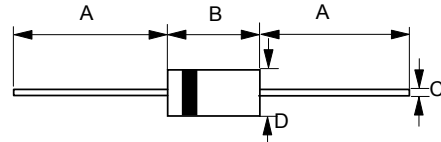
**FEATURES**

- Low cost
- Diffused junction
- Ultra fast switching for high efficiency
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

**MECHANICAL DATA**

- Case : JEDEC DO-15 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.015 ounces, 0.4 grams
- Mounting position : Any

**DO-15**



DO-15		
Dim.	Min.	Max.
A	25.4	-
B	5.80	7.60
C	0.71 $\phi$	0.86 $\phi$
D	2.60 $\phi$	3.60 $\phi$
All Dimensions in millimeter		

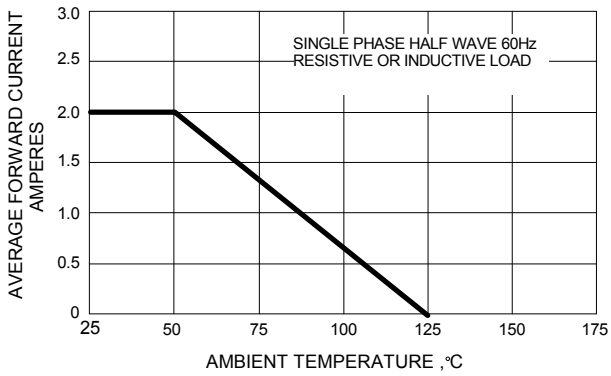
**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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%

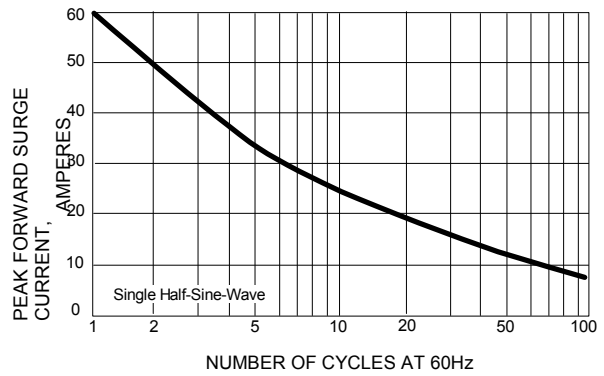
CHARACTERISTICS	SYMBOL	UF2001	UF2002	UF2003	UF2004	UF2005	UF2006	UF2007	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T <sub>A</sub> =50°C	I <sub>(AV)</sub>	2.0							A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load	I <sub>FSM</sub>	60							A
Maximum forward Voltage at 2.0A DC	V <sub>F</sub>	1.0		1.3		1.7			V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T <sub>J</sub> =25°C @T <sub>J</sub> =100°C	I <sub>R</sub>	5.0			100				uA
Maximum Reverse Recovery Time (Note 1)	T <sub>RR</sub>	50				75			ns
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	50				30			pF
Typical Thermal Resistance (Note 3)	R <sub>θJA</sub> R <sub>θJL</sub> R <sub>θJC</sub>	40 15 20							°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +125							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°C

NOTES : 1. Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, I<sub>RR</sub>=0.25A.  
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
3. Thermal Resistance Junction to Ambient, Lead and Case.

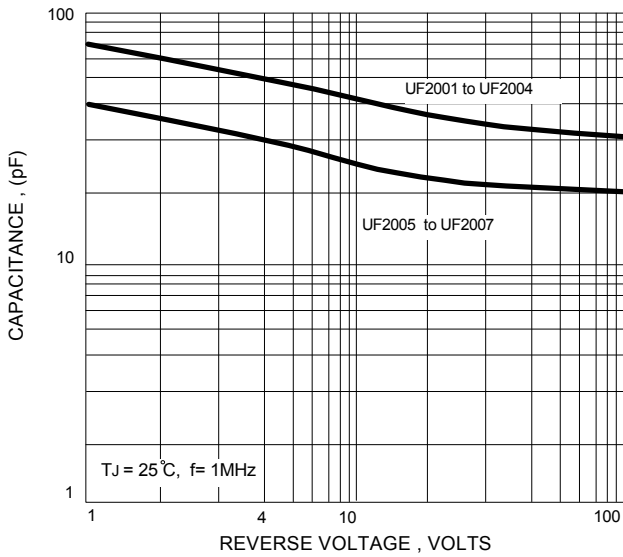
**FIG. 1 - FORWARD CURRENT DERATING CURVE**



**FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT**



**FIG. 3 - TYPICAL JUNCTION CAPACITANCE**



**FIG. 4 - TYPICAL FORWARD CHARACTERISTICS**

