

# Kingtronics®

# UF2001 THRU UF2008

## ULTRA FAST RECTIFIERS

**REVERSE VOLTAGE** 50 to 1000 Volts    **FORWARD CURRENT** 2.0 Ampere

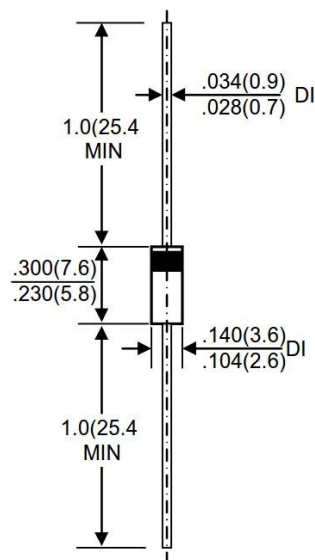
### FEATURES

- 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



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified , Dimensions in inches and (millimeters)  
 Single phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive load derate current by 20%

	SYMBOL	UF 2001	UF 2002	UF 2003	UF 2004	UF 2005	UF 2006	UF 2007	UF 2008	UNIT	
Maximum Recurrent Peak Reverse	$V_{RRM}$	50	100	200	300	400	600	800	1000	Volts	
Maximum RMS Voltage	$V_{RMS}$	35	70	140	210	280	420	560	700	Volts	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	300	400	600	800	1000	Volts	
Maximum Average Forward Rectified Current at $T_A=50^\circ C$	$I_{(AV)}$	2.0								Amps	
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method)	$I_{FSM}$	60								Amps	
Peak Forward Voltage at 2.0A DC(Note1)	$V_F$	1.0			1.3		1.7			Volts	
Maximum DC Reverse Current $T_J=25^\circ C$ at rated DC Blocking voltage $T_J=100^\circ C$	$I_R$	5.0				100				uA	
Maximum Reverse Recovery Time (Note 1)	$T_{RR}$	50					75				nS
Typical Junction Capacitance (Note1)	$C_J$	50					30				pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$	25								°C/W	
Operating Temperature Range	$T_J$	-55 to +125								°C	
Storage Temperature Range	$T_{STG}$	-55 to +150								°C	

1- Measured with  $I_F=0.5A$ ,  $I_R=1A$ ,  $I_{RR}=0.25A$

2- Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

3- Thermal resistance junction to ambient

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## RATINGS AND CHARACTERISTIC CURVES

FIG. 1 – FORWARD CURRENT DERATING CURVE

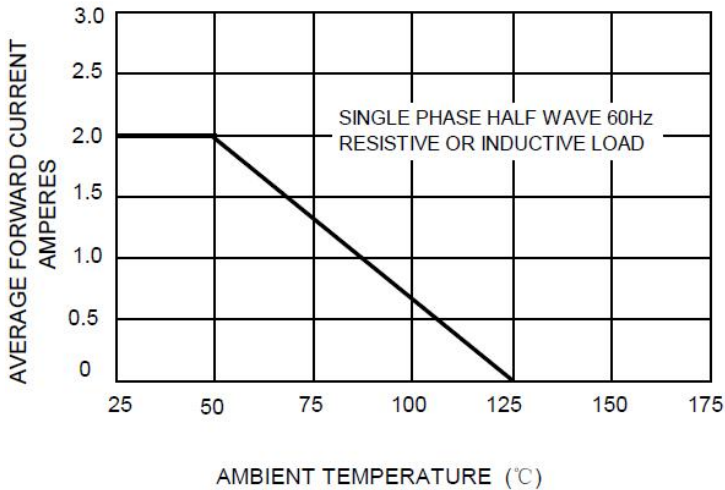


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

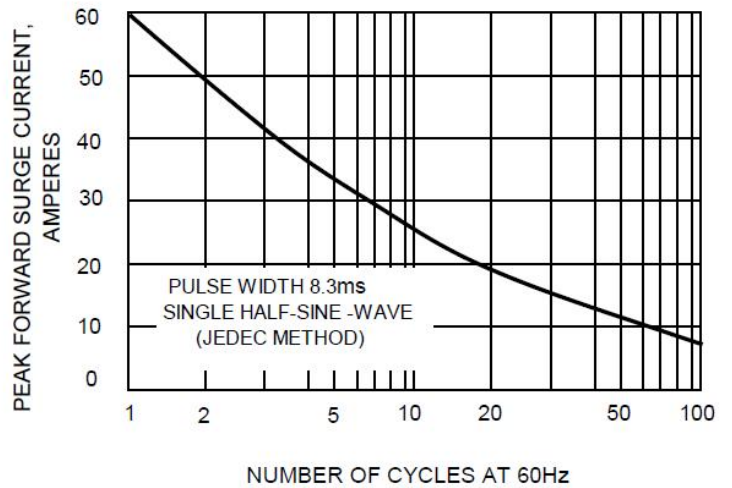


FIG.3 – TYPICAL JUNCTION CAPACITANCE

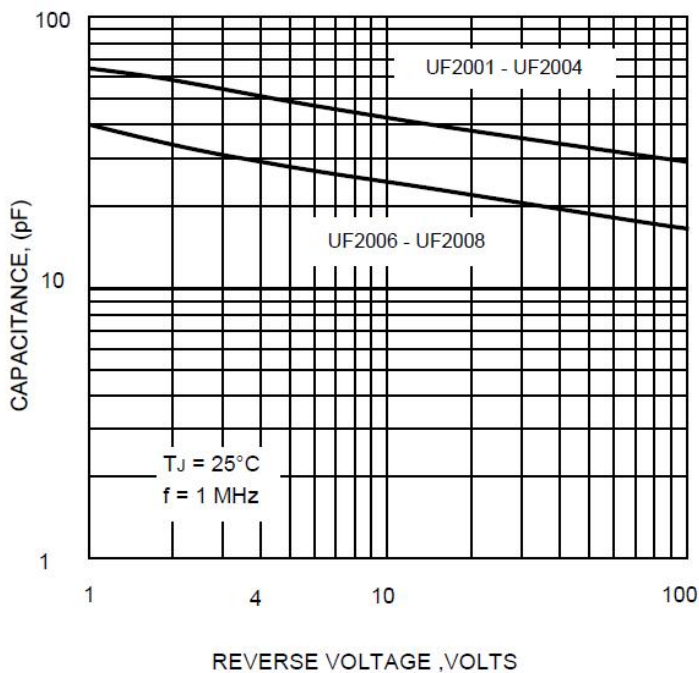
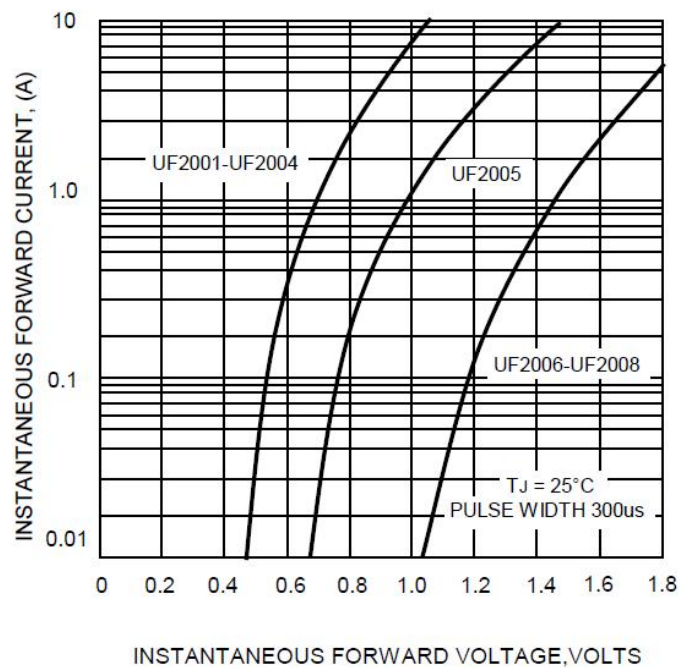


FIG.4-TYPICAL FORWARD CHARACTERISTICS



Note: Specifications are subject to change without notice.

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