

**RoHS  
Compliant**



## 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

## Specifications

Reverse Voltage : 50 to 1,000 Volts  
Forward Current : 1 Amperes

## Mechanical Data

Case : JEDEC DO-27 moulded plastic  
Polarity : Colour band denotes cathode  
Weight : 0.012 ounces, 0.34 grams  
Mounting Position : Any

## Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

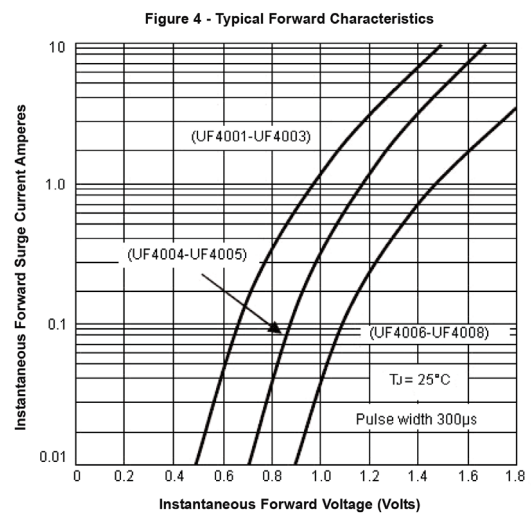
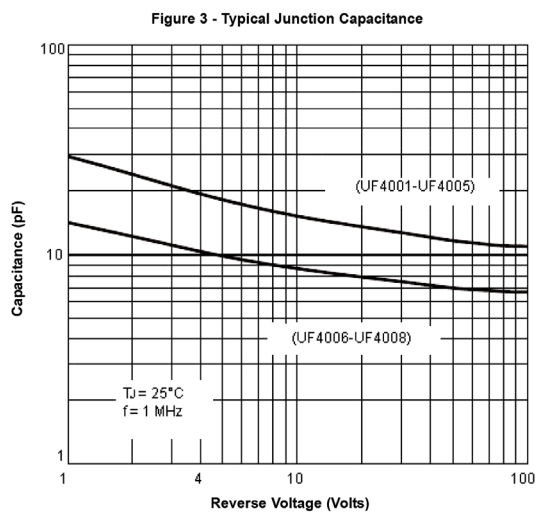
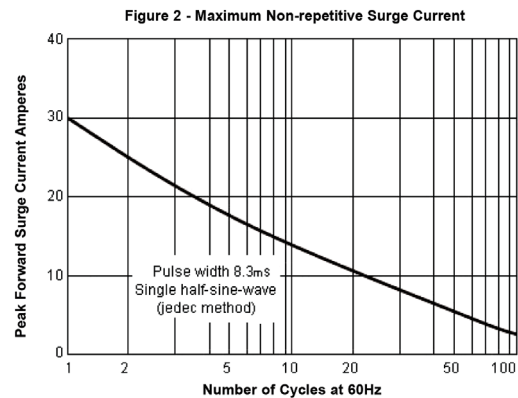
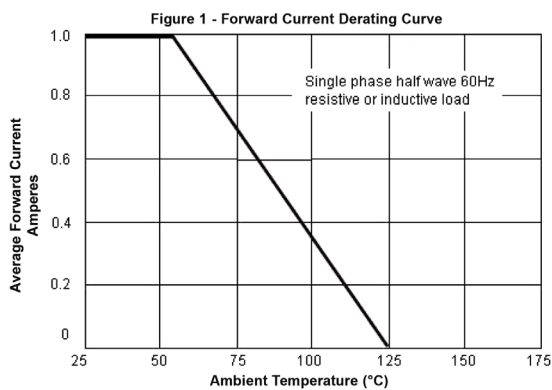
Characteristics	Sym- bol	UF4001	UF4002	UF4003	UF4004	UF4005	UF4006	UF4007	UF4008	Unit
Max. Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	600	800	1000	V
Max. RMS Voltage	$V_{RMS}$	35	70	140	210	280	420	560	700	
Max. DC Blocking Voltage	V DC	50	100	200	300	400	600	800	1000	
Max. Average Forward Rectified Current 0.375" (9.5mm) Lead Lengths @ $T_A=50^\circ\text{C}$	$I_{(AV)}$	1								A
Bakelite Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	$I_{FSM}$	30								A
Peak Forward Voltage at 2A DC (Note 1)	$V_F$	1				1.3	1.7			V
Max. DC Reverse Current @ $T_J=25^\circ\text{C}$ at Rated DC Bolcking Voltage @ $T_J=100^\circ\text{C}$	$I_R$	5				100				$\mu\text{A}$

Characteristics	Sym-bol	UF4001	UF4002	UF4003	UF4004	UF4005	UF4006	UF4007	UF4008	Unit
Max. Reverse Recovery Time (Note 1)	T <sub>RR</sub>	50					75			nS
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	20					10			pF
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	25								°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:**

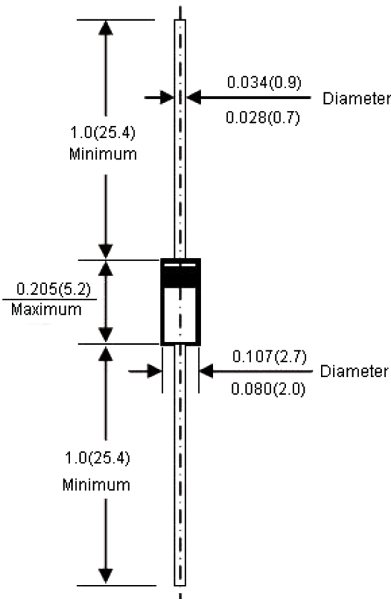
1. Measured with I<sub>F</sub>=0.5A, C<sub>IR</sub>=1A, C<sub>IRR</sub>=0.25A
2. Measured at 1MHz and applied reverse voltage of 4V DC.
3. Thermal resistance junction to ambient.

## Rating and Characteristic Curves



## Diagram

### DO- 41



Dimensions : Inches (Millimetres)

## Part Number Table

Description	Part Number
Ultra Fast Recitifiers	UF4001
	UF4002
	UF4003
	UF4004
	UF4005
	UF4006
	UF4007
	UF4008

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