

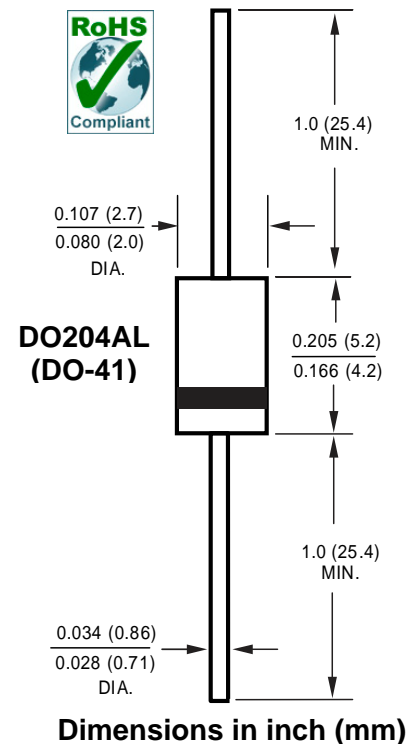
### Ultra Fast Recovery Rectifier

#### Features

- Ultra Fast recovery time with high efficiency
- Low forward voltage drop
- High forward surge current capability
- High temperature soldering guaranteed 265°C/10 seconds  
/.037" (9.5mm) lead length, 5lbs (2.3kg) tension
- RoHS compliant

#### Mechanical Data

<b>Case:</b>	DO-204AL, molded plastic
<b>Epoxy:</b>	Meets UL 94V-0 flammability rating
<b>Terminals:</b>	Axial leads, solderable per MIL-STD-202G, Method 208
<b>Polarity:</b>	Cathode indicated by color band
<b>Mounting position:</b>	Any
<b>Weight:</b>	0.013 Ounce, 0. 3 gram



#### Maximum Ratings ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	UF4001	UF4002	UF4003	UF4004	UF4005	UF4006	UF4007	Unit	Conditions
<b>V<sub>RRM</sub></b>	Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
<b>V<sub>RMS</sub></b>	Maximum RMS Voltage	35	70	140	280	420	560	700	V	
<b>V<sub>DC</sub></b>	Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V	
<b>I<sub>F(AV)</sub></b>	Maximum Average Forward Rectified Current	1.0							A	.375" (9.5mm) lead length at TA = 55 °C <b>note 1</b>
<b>I<sub>FSM</sub></b>	Peak Forward Surge Current	30							A	8.3ms single half sine-wave superimposed on rated load (JEDEC method) TL=110°C
<b>T<sub>J</sub>, T<sub>STG</sub></b>	Operating and Storage Temperature Range	-55 to +150							° C	

# Ultra Fast Recovery Rectifier

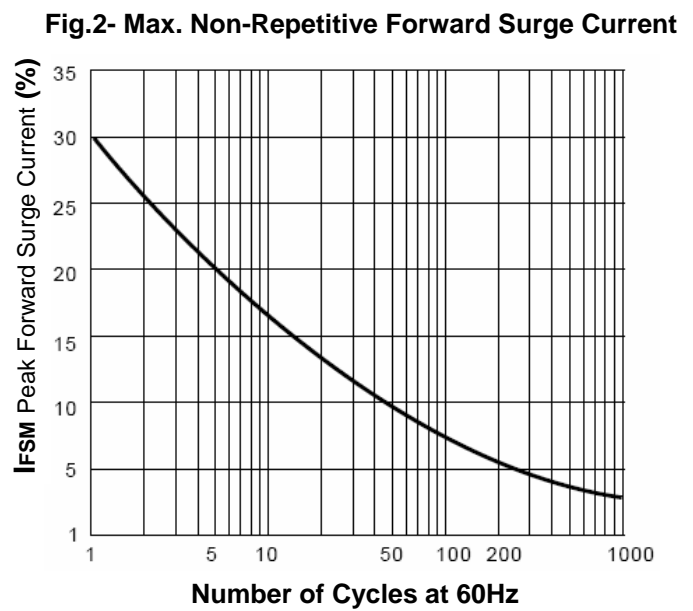
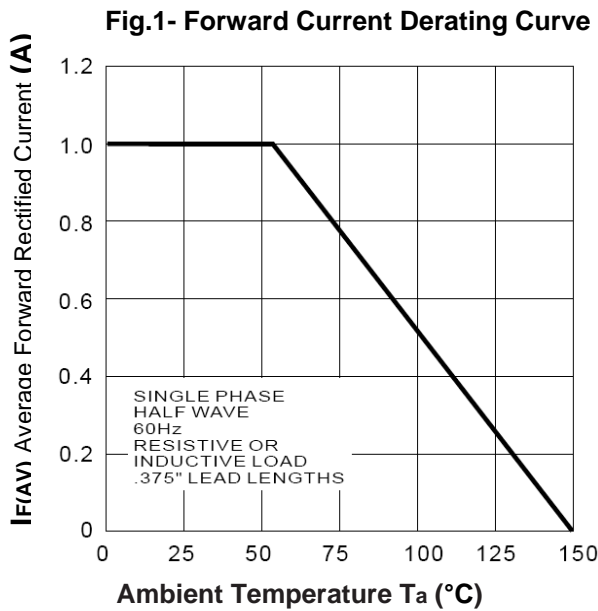
## UF4001~UF4007

### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

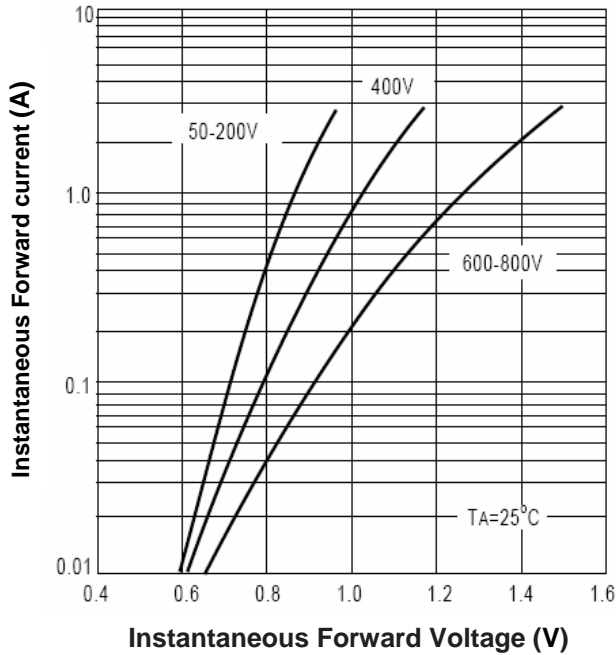
Symbol	Description	UF4001	UF4002	UF4003	UF4004	UF4005	UF4006	UF4007	Unit	Conditions	
$V_F$	Maximum Instantaneous Forward Voltage	1.0			1.7				V	$I_{F(AV)}=1.0\text{ A}$	
$I_R$	Maximum DC Reverse Current at Rated DC Blocking Voltage	5.0								$\mu\text{A}$	$T_A = 25^{\circ}C$
		50									$T_A = 100^{\circ}C$
$T_{rr}$	Maximum Reverse Recovery time	50			100				ns	$I_{F(AV)}=0.5\text{ A}, I_R=1\text{ A}, I_{rr}=0.25\text{ A}$	
$C_J$	Typical Junction Capacitance	17								pf	at 1MHz, reversed voltage of 4V
$R_{\theta-JA}$	Typical Thermal Resistance from Junction to Ambient	60								$^{\circ}C/W$	note 2

- Note:**
- 60Hz, resistive or inductive load. Derate current by 20% for capacitive load
  - Thermal resistance from junction to ambient at .375" (9.5mm) lead length, PCB mounted with copper pad area of 0.2" x 0.2" (5x5mm).

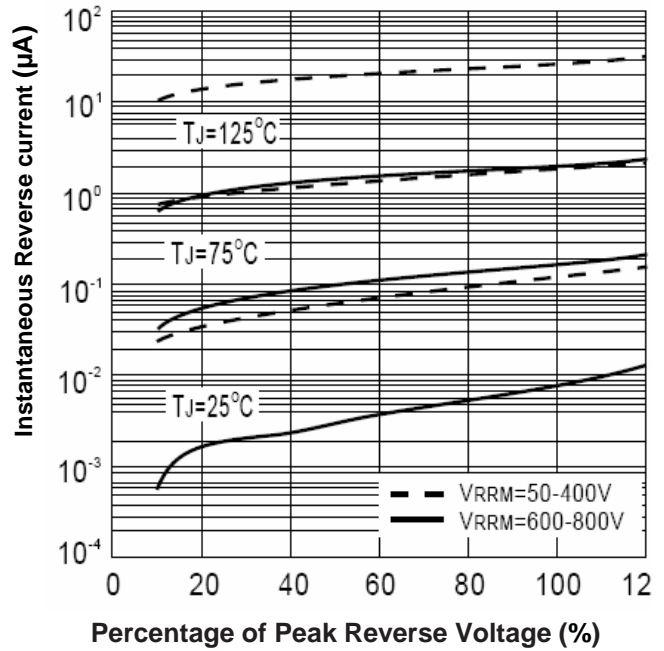
### Typical Characteristics Curves



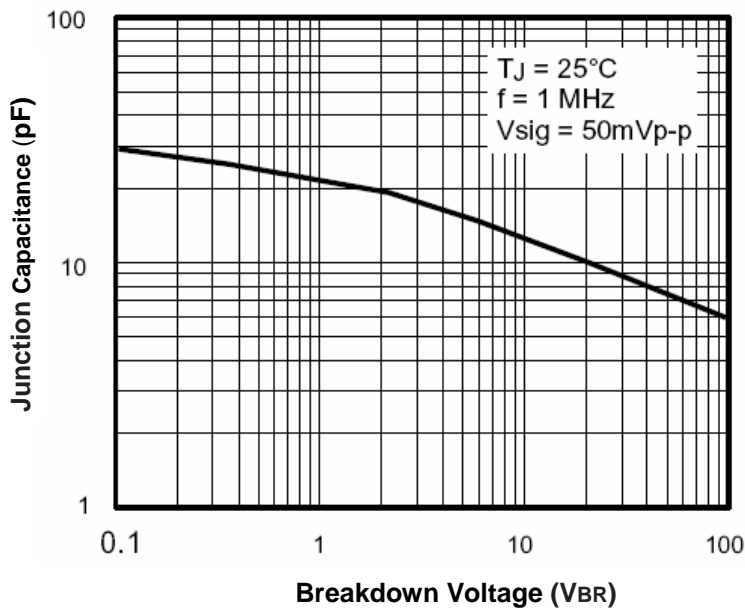
**Fig.3- Typical Instantaneous Forward Characteristics**



**Fig.5- Typical Reverse Characteristics**



**Fig.6- Typical Junction Capacitance**



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