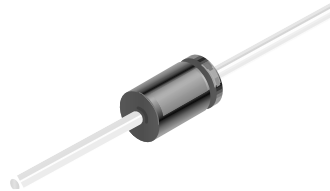


## UF4001 - UF4007

### Features

- Low forward voltage drop.
- High surge current capability.
- High reliability.
- High current capability.



**DO-41**  
COLOR BAND DENOTES CATHODE

### Fast Rectifiers (Glass Passivated)

#### Absolute Maximum Ratings\* T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value							Units
		4001	4002	4003	4004	4005	4006	4007	
V <sub>RRM</sub>	Maximum Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
I <sub>F(AV)</sub>	Average Rectified Forward Current, .375 " lead length @ T <sub>A</sub> = 75°C	1.0							A
I <sub>FSM</sub>	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	30							A
T <sub>stg</sub>	Storage Temperature Range	-65 to +150							°C
T <sub>J</sub>	Operating Junction Temperature	-65 to +150							°C

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### Thermal Characteristics

Symbol	Parameter	Value	Units
P <sub>D</sub>	Power Dissipation	2.08	W
R <sub>θJA</sub>	Thermal Resistance, Junction to Ambient	60	°C/W
R <sub>θJL</sub>	Thermal Resistance, Junction to Lead	15	°C/W

### Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Device							Units
		4001	4002	4003	4004	4005	4006	4007	
V <sub>F</sub>	Forward Voltage @ 1.0 A	1.0			1.7				V
t <sub>rr</sub>	Reverse Recovery Time I <sub>F</sub> = 0.5 A, I <sub>R</sub> = 1.0 A, I <sub>RR</sub> = 0.25 A	50			75				ns
I <sub>R</sub>	Reverse Current @ rated V <sub>R</sub> T <sub>A</sub> = 25°C T <sub>A</sub> = 100°C	10			50				μA μA
C <sub>T</sub>	Total Capacitance V <sub>R</sub> = 4.0 V, f = 1.0 MHz	17							pF

## Typical Characteristics

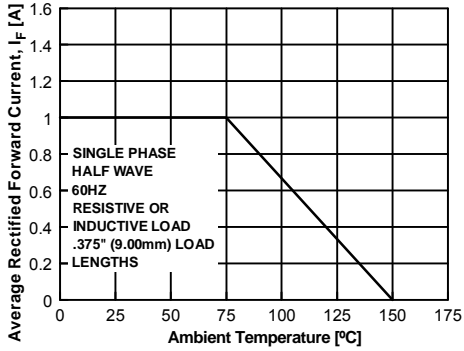


Figure 1. Forward Current Derating Curve

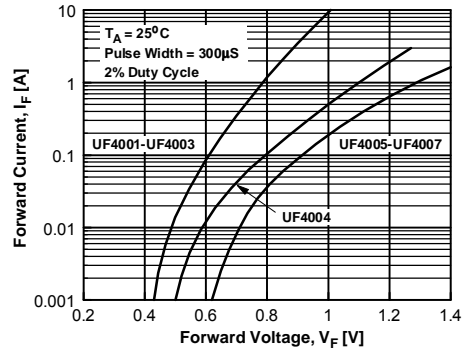


Figure 2. Forward Voltage Characteristics

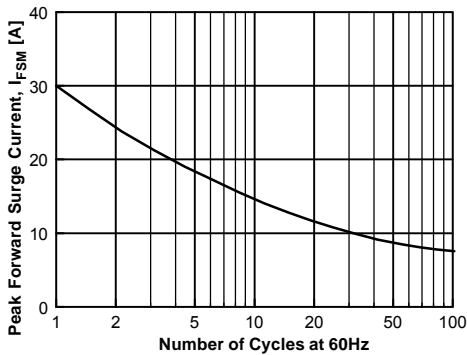


Figure 3. Non-Repetitive Surge Current

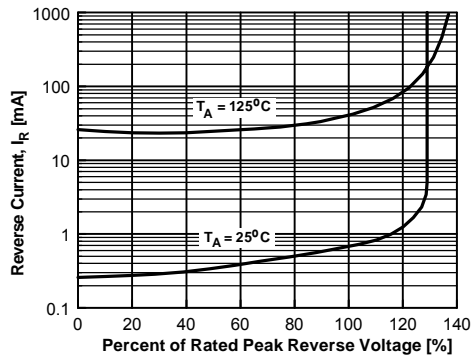


Figure 4. Reverse Current vs Reverse Voltage

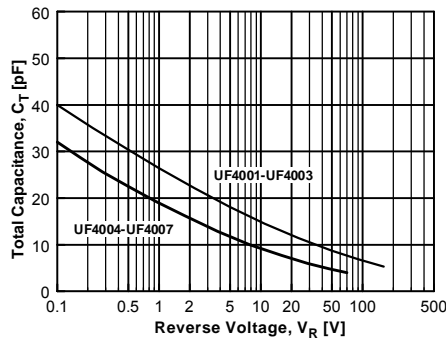
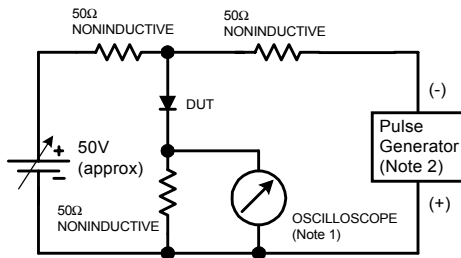
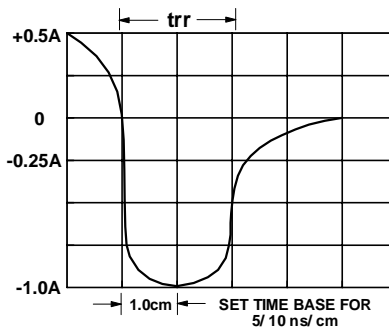


Figure 5. Total Capacitance



NOTES:

1. Rise time = 7.0 ns max; Input impedance = 1.0 megaohm 22 pf.
2. Rise time = 10 ns max; Source impedance = 50 ohms.



Reverse Recovery Time Characteristic and Test Circuit Diagram

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FACT <sup>™</sup>	MicroPak <sup>™</sup>	Quiet Series <sup>™</sup>	UHC <sup>™</sup>	
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