

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_A = 25°C unless otherwise noted

Symbol	Parameter	Value							Units
-		4001	4002	4003	4004	4005	4006	4007	
V_{RRM}	Maximum Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
I _{F(AV)}	Average Rectified Forward Current, .375 " lead length @ T _A = 75°C	1.0			Α				
I _{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave		30						Α
T _{stg}	Storage Temperature Range -65 to +150			°C					
T _J	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_{D}	Power Dissipation	2.08	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	60	°C/W
$R_{\theta JL}$	Thermal Resistance, Junction to Lead	15	°C/W

$\textbf{Electrical Characteristics} \qquad \textit{T}_{A} = 25\,^{\circ}\textrm{C unless otherwise noted}$

Symbol	Parameter		Device						
•		4001	4002	4003	4004	4005	4006	4007	
V_{F}	Forward Voltage @ 1.0 A	1.0		1.7			V		
t _{rr}	Reverse Recovery Time $I_F = 0.5 \text{ A}, I_R = 1.0 \text{ A}, I_{RR} = 0.25 \text{ A}$	50 75				ns			
I _R	Reverse Current @ rated V_R $T_A = 25^{\circ}C$ $T_A = 100^{\circ}C$		10 50						μA μA
Ст	Total Capacitance $V_R = 4.0 \text{ V}, f = 1.0 \text{ MHz}$	17			pF				

Typical Characteristics

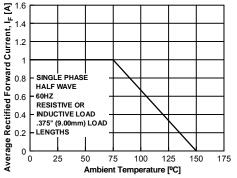


Figure 1. Forward Current Derating Curve

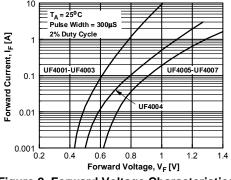


Figure 2. Forward Voltage Characteristics

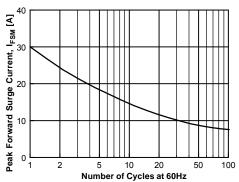


Figure 3. Non-Repetitive Surge Current

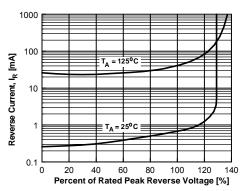
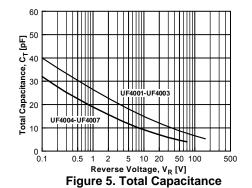
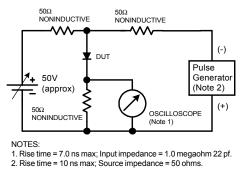
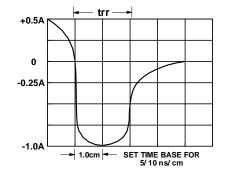


Figure 4. Reverse Current vs Reverse Voltage







Reverse Recovery Time Characterstic and Test Circuit Diagram

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UltraFET^â

PRODUCT STATUS DEFINITIONS

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Datasheet Identification	Product Status	Definition					
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