FAIRCHILD SEMICONDUCTOR®

UF4001 - UF4007
Fast Rectifiers

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

DO-41 (Plastic)
COLOR BAND DENOTES CATHODE

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							A
I_{FSM}	Non-Repetitive Peak Forward Surge Current 8.3ms Single Half-Sine-Wave	30							A
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

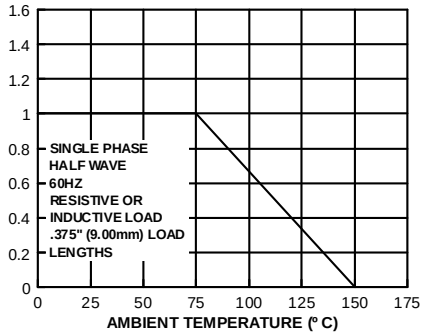
Symbol	Parameter	Value	Units
P_D	Power Dissipation	2.08	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	60	°C/W
$R_{\theta JL}$	Thermal Resistance, Junction to Lead	30	°C/W

Electrical Characteristics T_a = 25°C unless otherwise noted

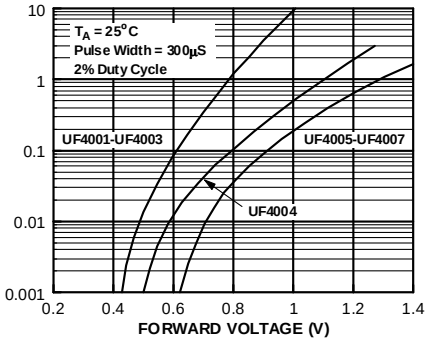
Symbol	Parameter	Value							Units
		4001	4002	4003	4004	4005	4006	4007	
V_F	Forward Voltage @ 1.0A	1.0				1.7			V
t_{rr}	Reverse Recovery Time I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A	50				75			ns
I_R	Reverse Current @ Rated V_R T_A = 25°C T_A = 100°C	10 50							µA µA
C_T	Total Capacitance V_R = 4.0V, f = 1.0MHz	17							pF

Typical Performance Characteristics

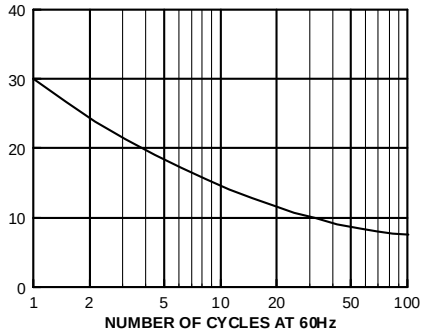
Forward Characteristics



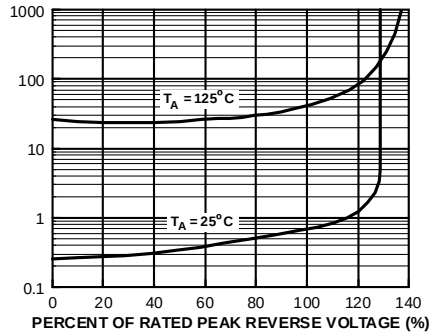
Forward Characteristics



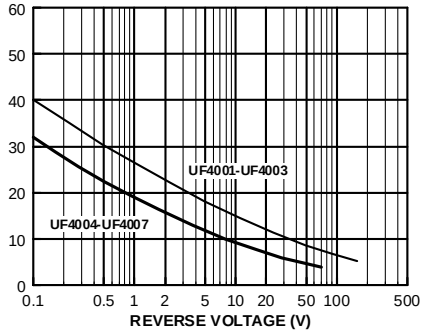
Non-Repetitive Surge Current

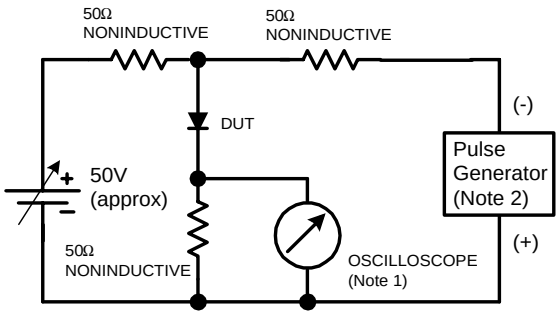


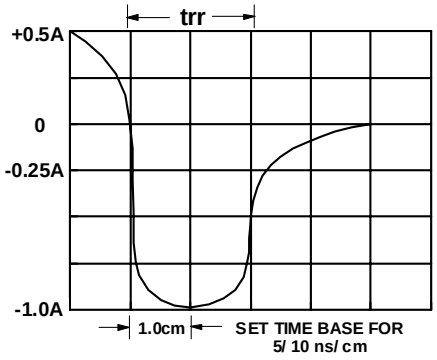
Reverse Characteristics



Typical Junction Capacitance







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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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