

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

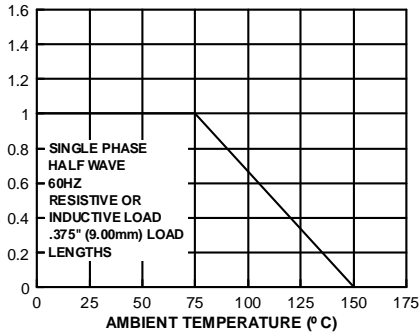
Symbol	Parameter	Value	Units
P _D	Power Dissipation	2.08	W
R _{θJA}	Thermal Resistance, Junction to Ambient	60	°C/W
R _{θJL}	Thermal Resistance, Junction to Lead	30	°C/W

Electrical Characteristics T_a = 25°C unless otherwise noted

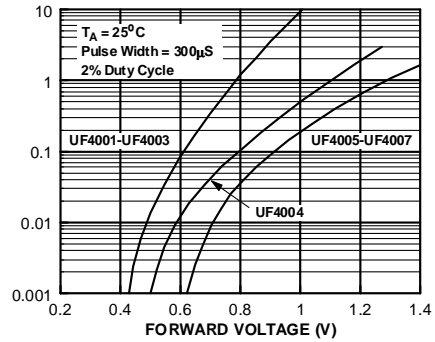
Symbol	Parameter	Value							Units
		4001	4002	4003	4004	4005	4006	4007	
V _F	Forward Voltage @ 1.0A	1.0			1.7				V
t _{rr}	Reverse Recovery Time I _F = 0.5A, I _R = 1.0A, I _{RR} = 0.25A	50			75				ns
I _R	Reverse Current @ Rated V _R T _A = 25°C T _A = 100°C	10			50				μA μA
C _T	Total Capacitance V _R = 4.0V, f = 1.0MHz	17							pF

Typical Performance Characteristics

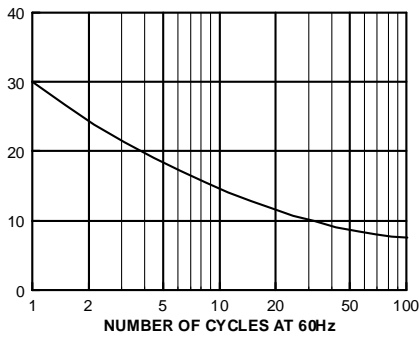
Forward Characteristics



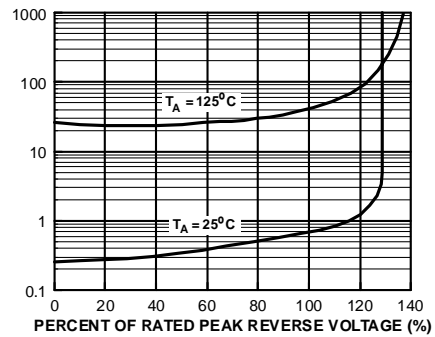
Forward Characteristics



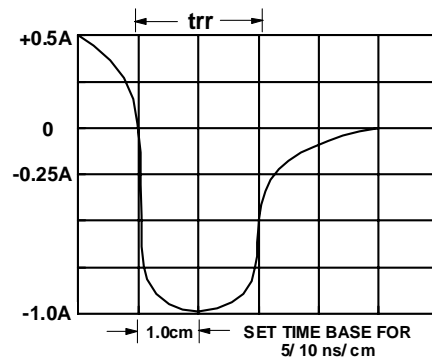
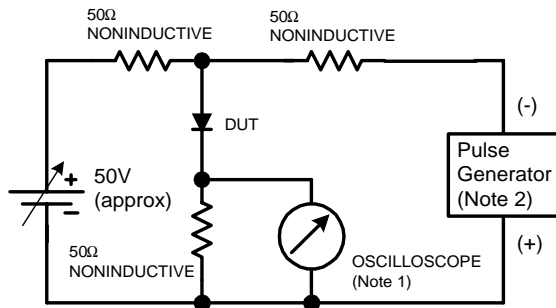
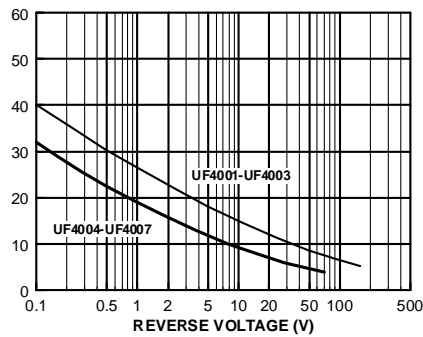
Non-Repetitive Surge Current



Reverse Characteristics



Typical Junction Capacitance



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E ² CMOST™	I ² C™	MSX™	QT Optoelectronics™	TinyLogic [®]
EnSigna™	<i>i-Lo</i> ™	MSXPro™	Quiet Series™	TINYOPTO™
FACT™	ImpliedDisconnect™	OCX™	RapidConfigure™	TruTranslation™
FACT Quiet Series™		OCXPro™	RapidConnect™	UHC™
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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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