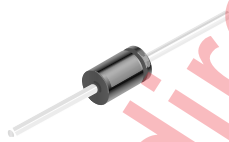


UF4001 - UF4007

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

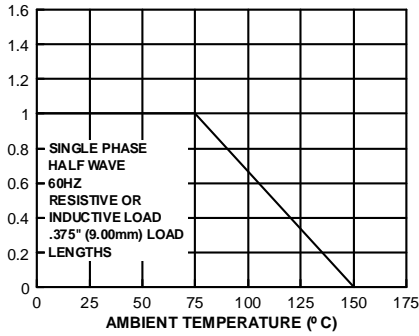
Symbol	Parameter	Value	Units
P _D	Power Dissipation	2.08	W
R _{θJA}	Thermal Resistance, Junction to Ambient	60	°C/W
R _{θJL}	Thermal Resistance, Junction to Lead	30	°C/W

Electrical Characteristics T_a = 25°C unless otherwise noted

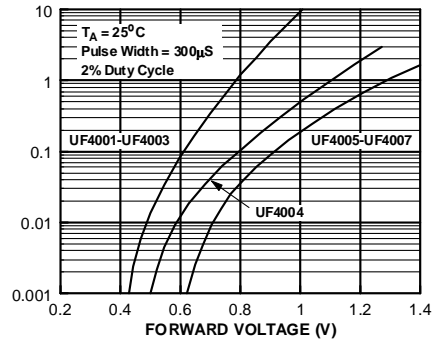
Symbol	Parameter	Value							Units
		4001	4002	4003	4004	4005	4006	4007	
V _F	Forward Voltage @ 1.0A	1.0			1.7				V
t _{rr}	Reverse Recovery Time I _F = 0.5A, I _R = 1.0A, I _{RR} = 0.25A	50			75				ns
I _R	Reverse Current @ Rated V _R T _A = 25°C T _A = 100°C	10			50				μA μA
C _T	Total Capacitance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

Typical Performance Characteristics

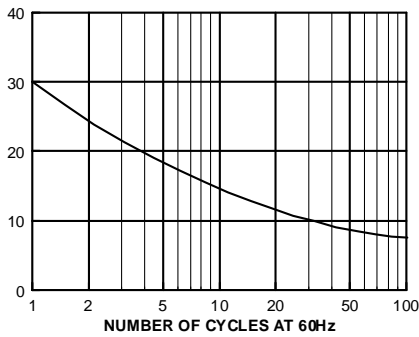
Forward Characteristics



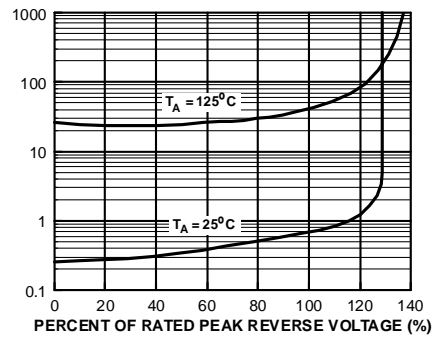
Forward Characteristics



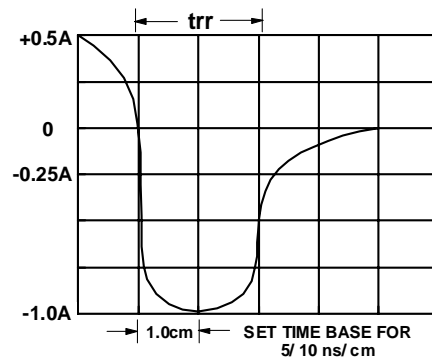
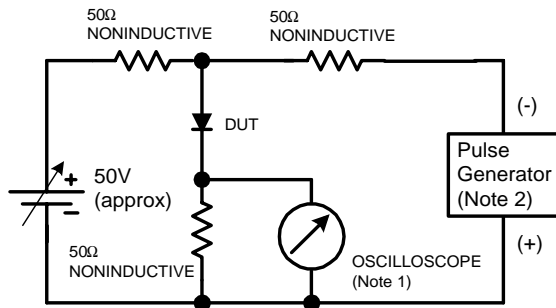
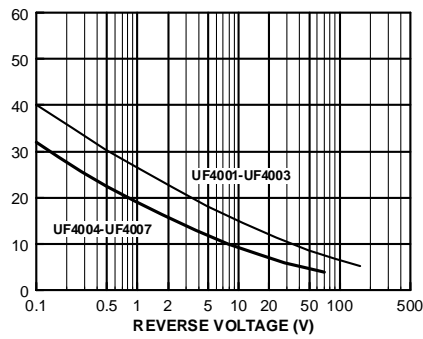
Non-Repetitive Surge Current



Reverse Characteristics



Typical Junction Capacitance



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CoolFET™	FRFET™	MICROCOUPLER™	PowerSaver™	SuperSOT™-3
CROSSVOLT™	GlobalOptoisolator™	MicroFET™	PowerTrench [®]	SuperSOT™-6
DOME™	GTO™	MicroPak™	QFET [®]	SuperSOT™-8
EcoSPARK™	HiSeC™	MICROWIRE™	QS™	SyncFET™
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™
Across the board. Around the world.™		OPTOLOGIC [®]	μ SerDes™	UltraFET [®]
The Power Franchise [®]		OPTOPLANAR™	SILENT SWITCHER [®]	UniFET™
Programmable Active Droop™		PACMAN™	SMART START™	VCX™

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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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Definition of Terms

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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.
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.

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