



UF4001-UF4007

ULTRA FAST RECTIFIER

FEATURES

Glass Passivated Die Construction

Low Forward Voltage Drop

High Current Capability

High Reliability

High Surge Current Capability

MECHANICAL DATA

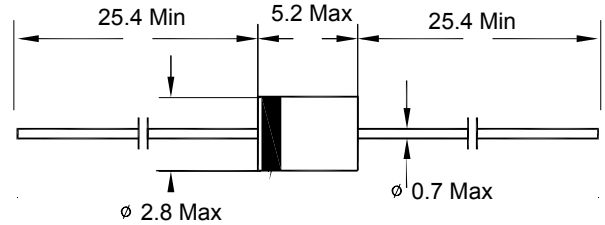
Case: DO-41, Molded Plastic

Terminals: Plated Leads Solderable per

MIL-STD-202, Method 208

Polarity: Cathode Band

Mounting Position: Any



DO-41 Dimensions in millimeters

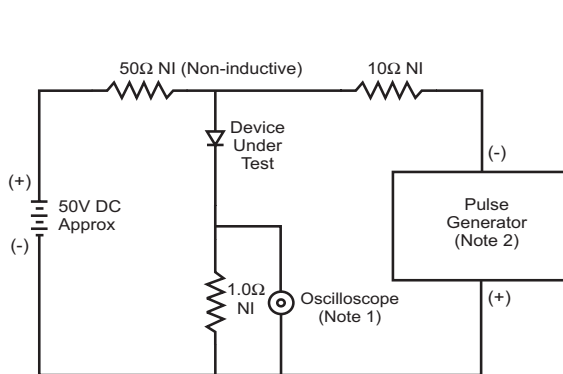
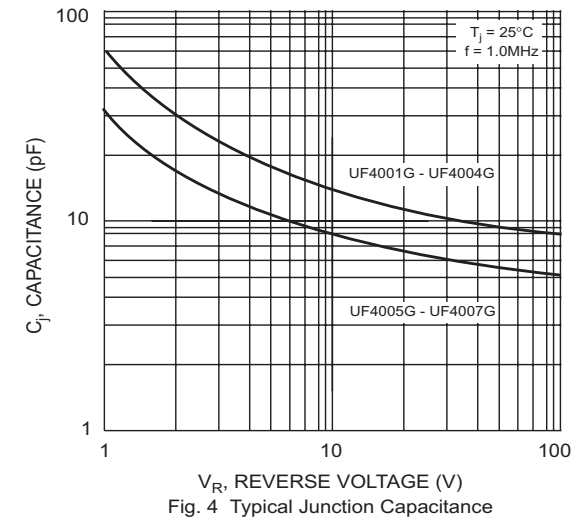
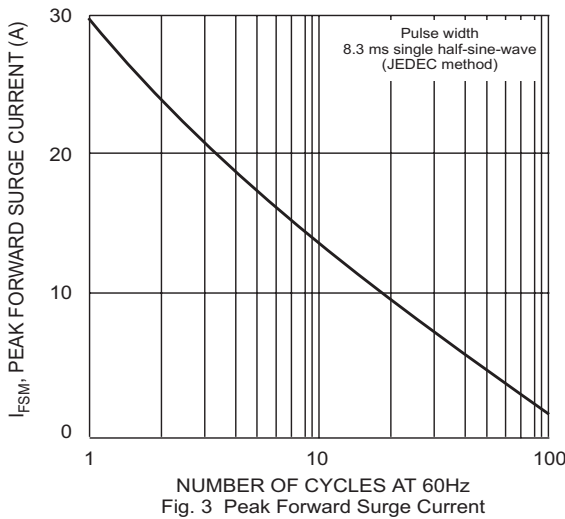
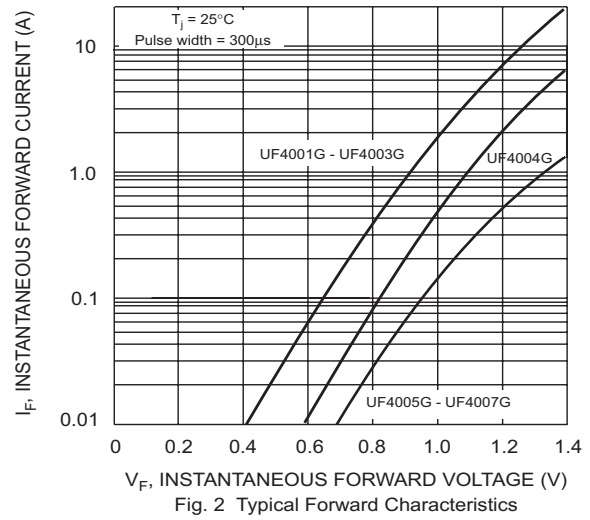
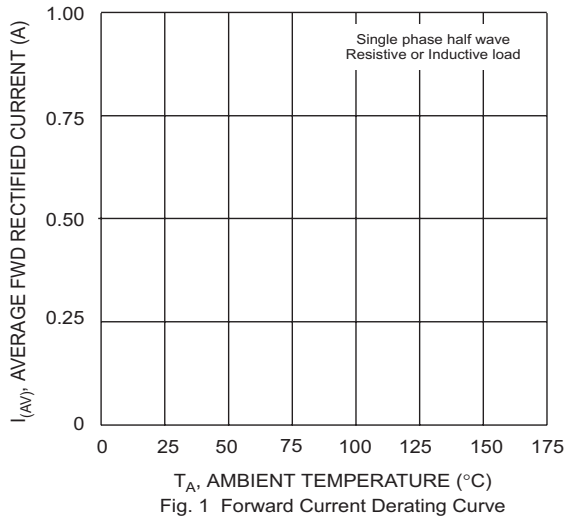
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified, Single Phase, half wave, 60Hz, resistive or inductive load, For capacitive load derate current by 20%

Characteristic	Symbol	UF 4001	UF 4002	UF 4003	UF 4004	UF 4005	UF 4006	UF 4007	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage DC	V _{RWM}								
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @T _A = 55°C	I _O	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated	I _{FSM}	30							A
Forward Voltage @I _F = 1.0A	V _{FM}	1.0			1.3	1.7			V
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 100°C	I _{RM}	5.0 100							μA
Reverse Recovery Time (Note 2)	t _{rr}	50				75			nS
Typical Junction Capacitance (Note 3)	C _j	20				10			pF
Operating Temperature Range	T _j	-65 to +150							°C
Storage Temperature Range	T _{STG}	-65 to +150							°C

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case
2. Measured with $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $IRR = 0.25\text{A}$. See figure 5.
3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

UF4001-UF4007 Typical Characteristics



- Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0M Ω , 22pF.
 2. Rise Time = 10ns max. Input Impedance = 50 Ω .

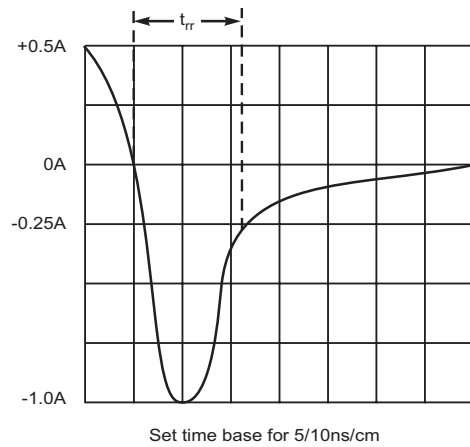


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit