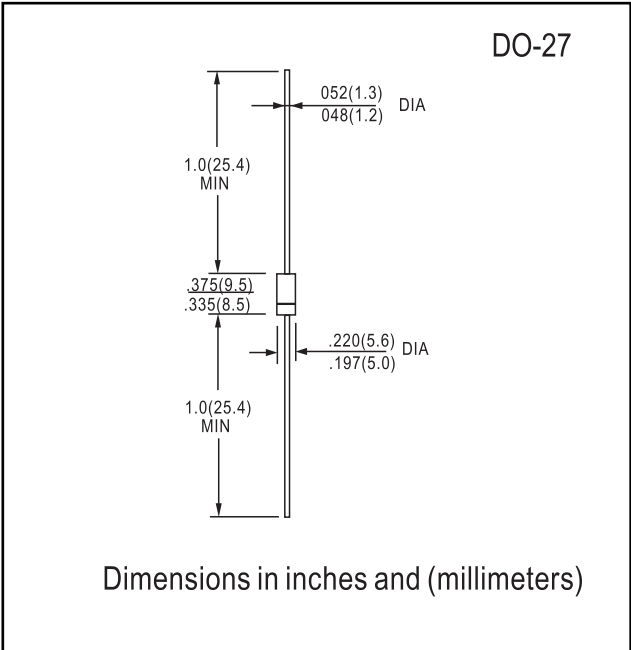




- FEATURES**
- Diffused Junction
 - Ultra-Fast Switching for High Efficiency
 - High Current Capability and Low Forward Voltage Drop
 - Surge Overload Rating to 150A Peak
 - Low Reverse Leakage Current
 - Plastic Material: UL Flammability Classification Rating 94V-0

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: Type Number
- Weight: 1.1 grams (approx.)
- Mounting Position: Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

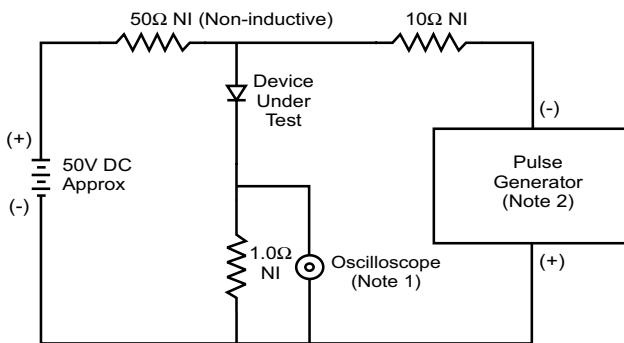
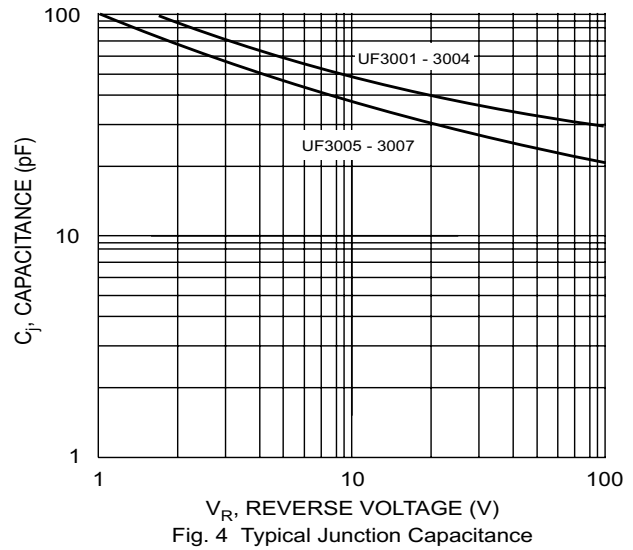
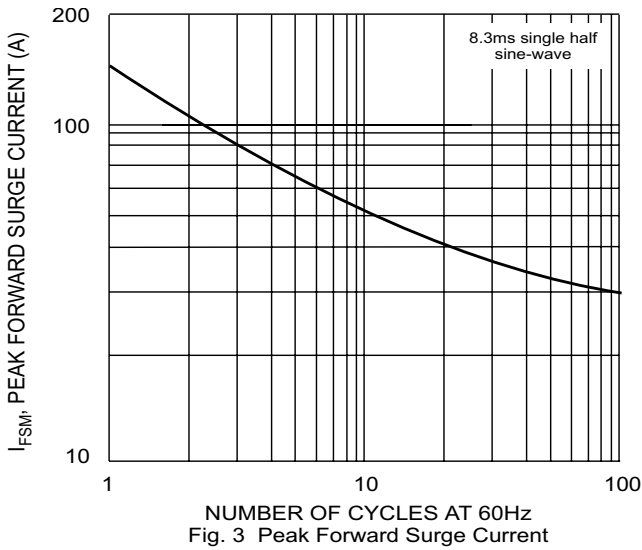
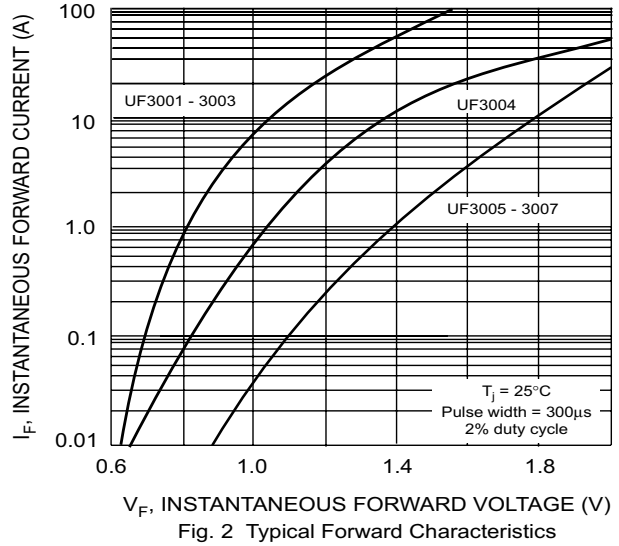
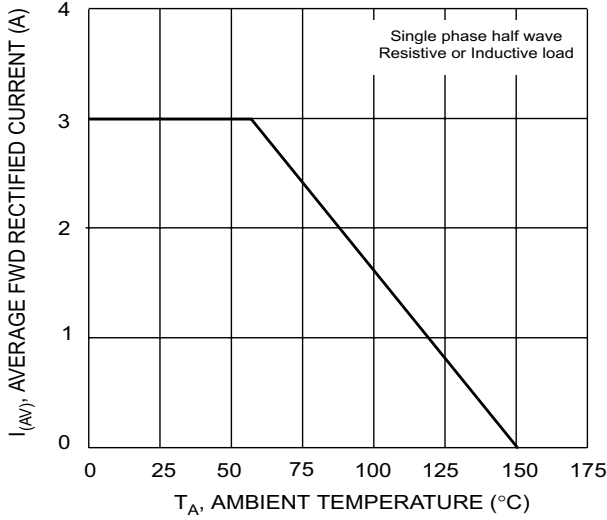
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	UF 3001	UF 3002	UF 3003	UF 3004	UF 3005	UF 3006	UF 3007	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @ $T_A = 55^\circ C$	I_o	3.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	150							A
Forward Voltage @ $I_F = 3.0A$	V_{FM}	1.0		1.3		1.7		V	
Peak Reverse Current at Rated DC Blocking Voltage @ $T_A = 25^\circ C$ @ $T_A = 100^\circ C$	I_{RM}	5.0 100							μA
Reverse Recovery Time (Note 3)	t_{rr}	50				75		ns	
Typical Junction Capacitance (Note 2)	C_j	75				50		pF	
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	35							K/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150							$^\circ C$

- Notes:
1. Valid provided that leads are maintained at ambient temperature at a distance of 9.5mm from the case.
 2. Measured at 1.0MHz and Applied Reverse Voltage of 4.0V DC.
 3. Measured with $I_F = 0.5A$, $I_R = 1.0A$, $I_{rr} = 0.25A$. See Figure 5.

RATINGS AND CHARACTERISTIC CURVES

UF3001 THRU UF3007



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

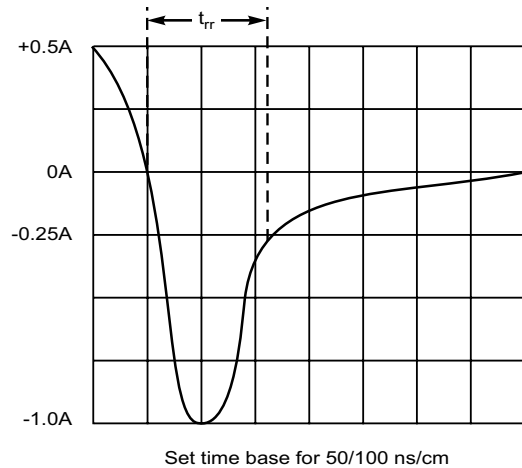


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit