

UF1001 Thru UF1007

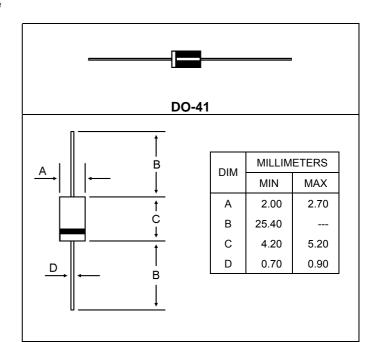
ULTRA-FAST GLASS PASSIVATED RECTIFIER VOLTAGE RANGE 50 TO 1000 Volts Current 1 Ampere

FEATURES

- * Ultra-fast recovery time for high efficiency
- * Glass Passivated Chip junction
- * Excellent high temperature switching
- * Low leakage
- * High temperature soldering guaranteed 260 /10 seconds, 0.375"(9.5 mm) lead length at 5 lbs(2.3kg) tension

MECHANICAL DATA

- * Case : Transfer Molded Plastic
- * Epoxy: UL94V-O rate flame retardant
- * Terminals : Solderable Per MIL-STD-202 Method 208
- * Polarity : Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.012 ounce. 0.33 gram (approx)



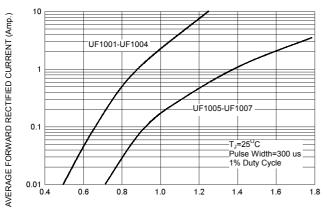
MAXIMUM RATINGS AND ELECTRICAL CHARATERISTICS

- * Rating at 25 ambient temperature unless otherwise specified
- * Single phase-half wave. 60Hz, resistive or inductive load. * For capacitive load derate current bh 20 %

Characteristic	Symbol	UF1001	UF1002	UF1003	UF1004	UF1005	UF1006	UF1007	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 Rectifier Forward Current Per Leg T _C =125	I _{F(AV)}	1.0							А
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware, single phase, 60Hz)	I _{FSM}	30							A
Maximum Instantaneous Forward Voltage (I_F =1.0 Amp T _C = 25)	V_{F}	1.3							V
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C = 25$) (Rated DC Voltage, $T_C = 125$)	I _R	5.0 100							uA
Reverse Recovery Time (I _F = 0.5 A, I _R =1.0,I _{rr} =0.25 A)	Trr	50 75						ns	
Typical Junction Capacitance (Reverse Voltage of 4 volts & f=1 MHz)	Cj	20							pF
Typical Thermal Resistance	R_{\thetajA}	95							/W
Operating and Storage Junction Temperature Range	T _J , T _{stg}	-65 to +175							

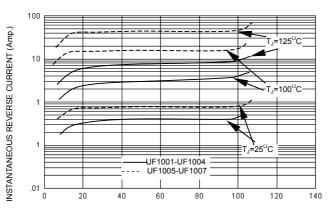
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FIG-1 TYPICAL FORWARD CHARACTERISITICS



FORWARD VOLTAGE (Volts)





PERCENT OF PEAK REVERSE VOLTAGE (%)

FIG-3 FORWARD CURRENT DERATING CURVE

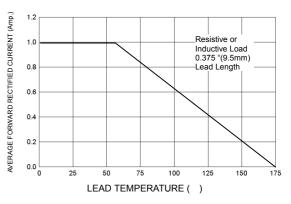


FIG-4TYPICAL JUNCTION CAPACITANCE

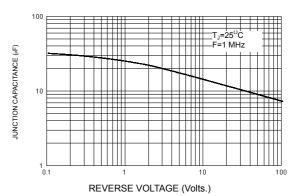
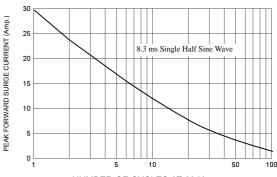
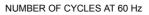
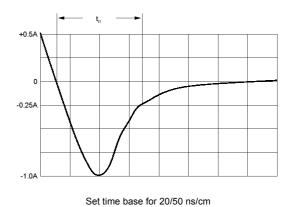
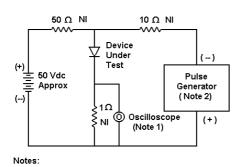


FIG-5PEAK FORWARD SURGE CURRENT









1. Rise Time = 7 ns max. Input Impedance =1 M Ω , 22 pF 2. Rise Time = 10 ns max. Input Impedance = 50 Ω

FIG-6 Reverse Recovery Time Characteristic and Test Circuit Diagram



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