

ULTRA-FAST GLASS PASSIVATED RECTIFIER VOLTAGE RANGE 50 TO 1000 Volts Current 2.0 Ampere

FEATURES

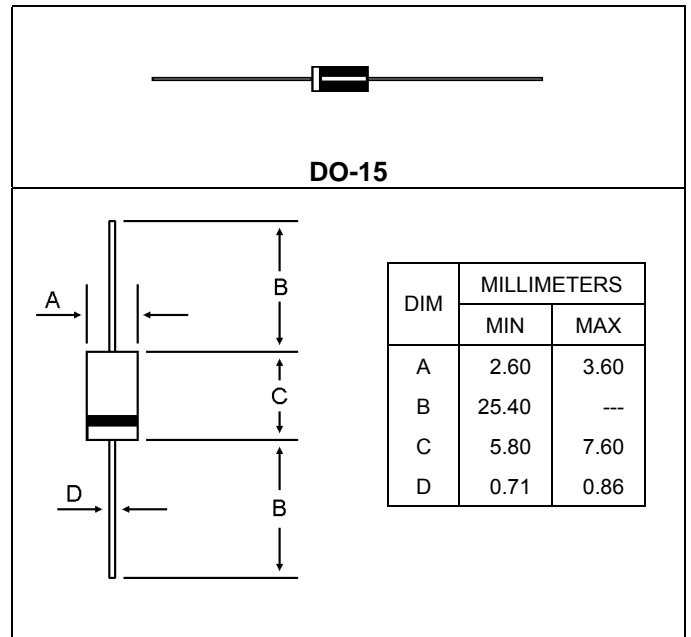
- * Ultra-fast recovery time for high efficiency
- * Glass Passivated Chip junction
- * Excellent high temperature switching
- * Low reverse leakage current
- * Low forward voltage drop
- * High current capability

MECHANICAL DATA

- * Case : JEDEC DO-15
- * Epoxy: UL94V-O rate flame retardant
- * Terminals : Solderable Per MIL-STD-202 Method 208
- * Polarity : Color band denotes cathode end
- * Mounting position: Any
- * Weight : 0.015 ounces,0.4 grams

Plating pb free

The marking is indicated by part no. with "M".
ex: UF2001M ~UF2007M



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- * Rating 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	UF2001	UF2002	UF2003	UF2004	UF2005	UF2006	UF2007	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 $T_C=125$	$I_{F(AV)}$	2.0							A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions half-wave, single phase, 60Hz)	I_{FSM}	60							A
Maximum Instantaneous Forward Voltage ($I_F=1.0$ Amp $T_C=25$)	V_F	1.0		1.3		1.7		V	
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C=25$) (Rated DC Voltage, $T_C=125$)	I_R	5.0 100							μ A
Reverse Recovery Time ($I_F=0.5$ A, $I_R=1.0$, $I_{rr}=0.25$ A)	T_{rr}	50				75			ns
Typical Junction Capacitance (Reverse Voltage of 4 volts & f=1 MHz)	C_j	50				30			pF
Typical Thermal Resistance	$R_{\theta jA}$	25							/W
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-65 to +150							

UF2001 Thru UF2007

FIG-1 TYPICAL FORWARD CHARACTERISTICS

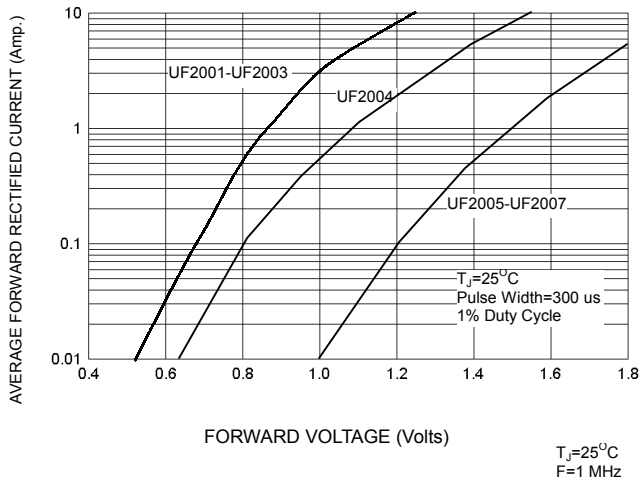


FIG-3 FORWARD CURRENT DERATING CURVE

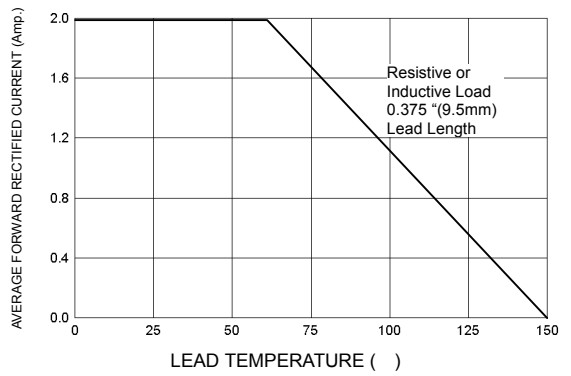


FIG-2 TYPICAL REVERSE CHARACTERISTICS

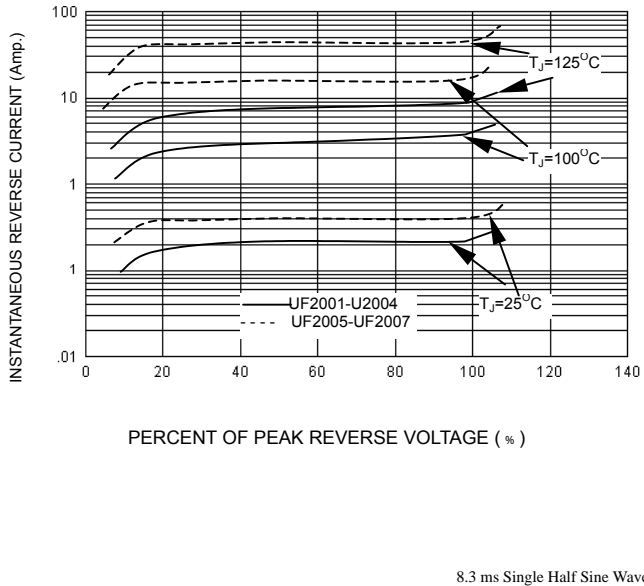


FIG-4 TYPICAL JUNCTION CAPACITANCE

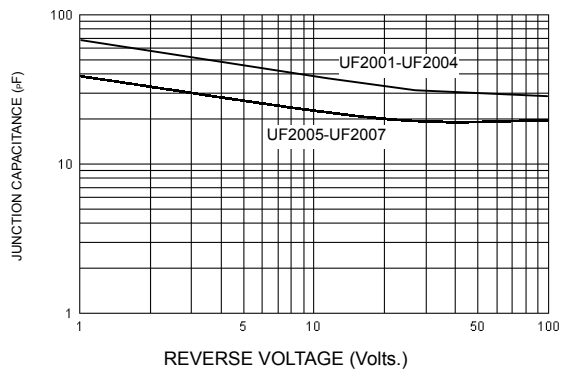
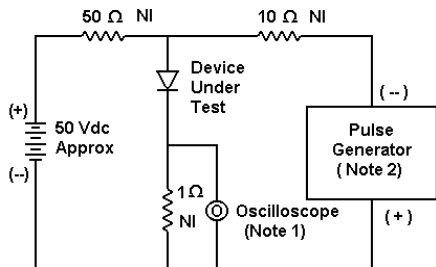
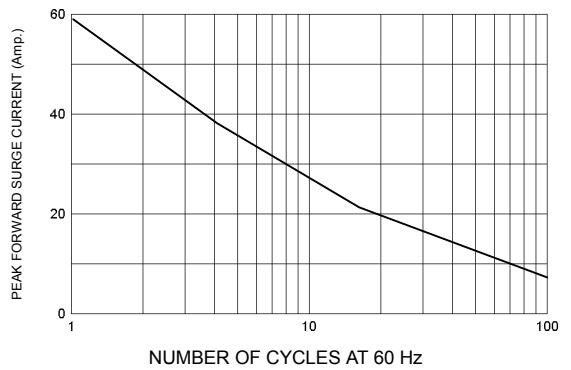
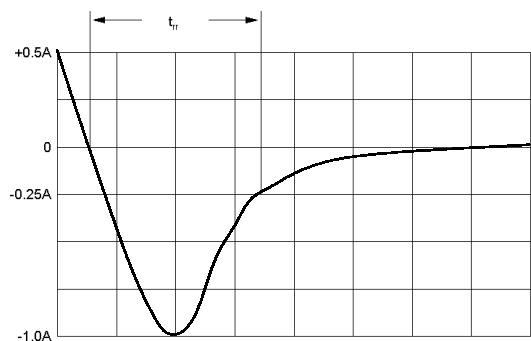


FIG-5 PEAK FORWARD SURGE CURRENT



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



Set time base for 20/50 ns/cm

FIG-6 Reverse Recovery Time Characteristic and Test Circuit Diagram