

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

FEATURES

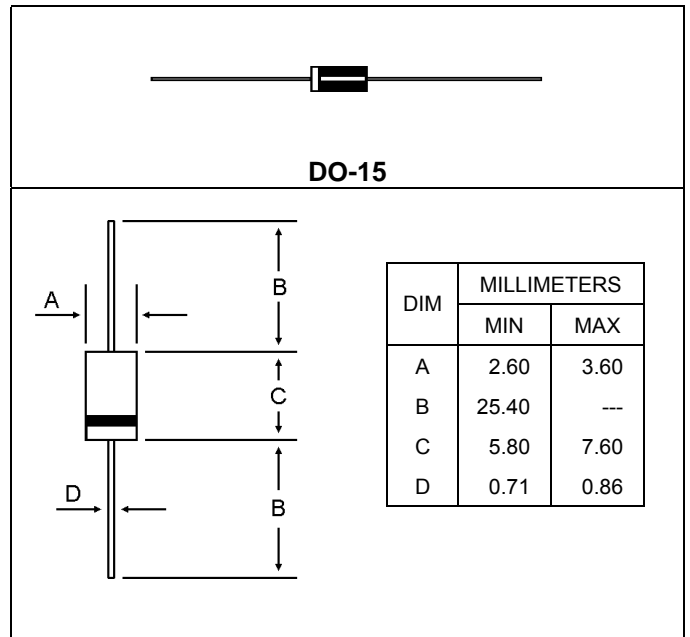
- * Ultra-fast recovery time for high efficiency
- * Glass Passivated Chip junction
- * Excellent high temperature switching
- * Low reverse leakage current
- * Low forward voltage drop
- * High current capability

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							uA
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-T52 Thru UF2007-T52

FIG-1 TYPICAL FORWARD CHARACTERISTICS

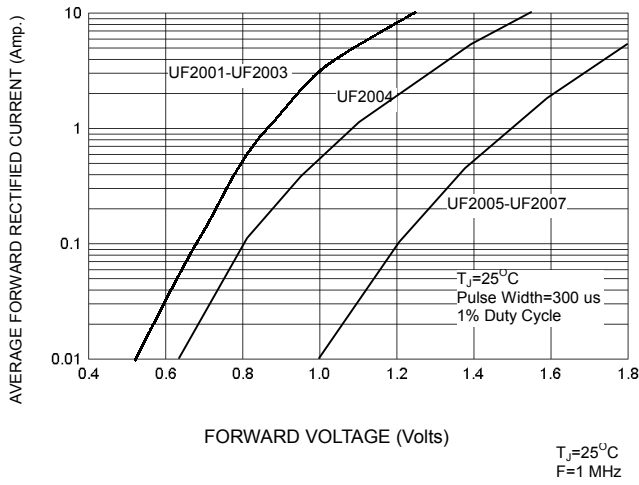


FIG-3 FORWARD CURRENT DERATING CURVE

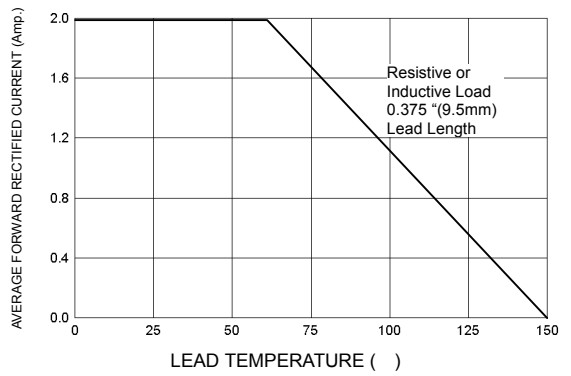


FIG-2 TYPICAL REVERSE CHARACTERISTICS

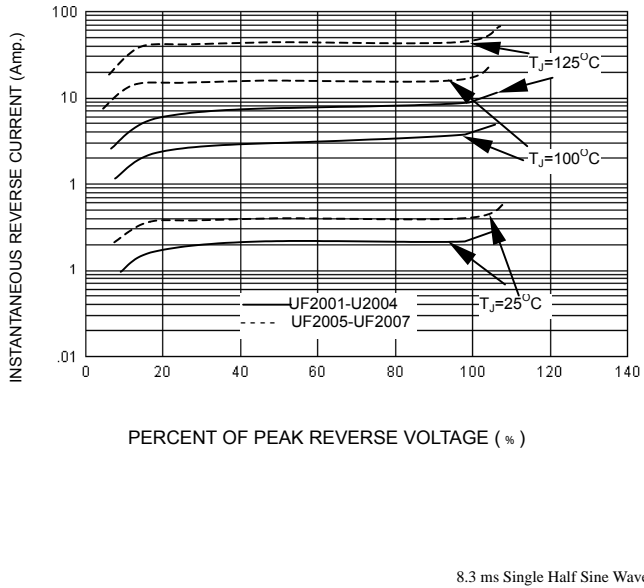


FIG-4 TYPICAL JUNCTION CAPACITANCE

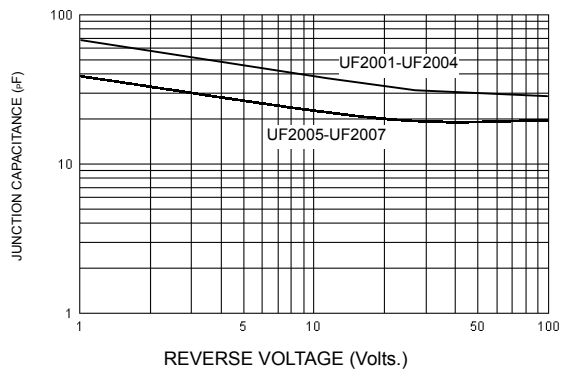
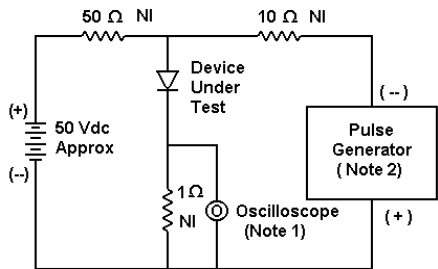
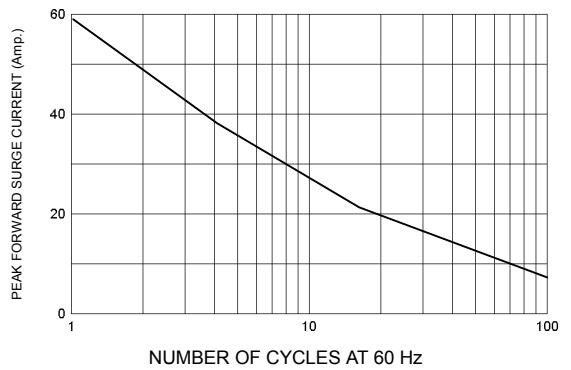
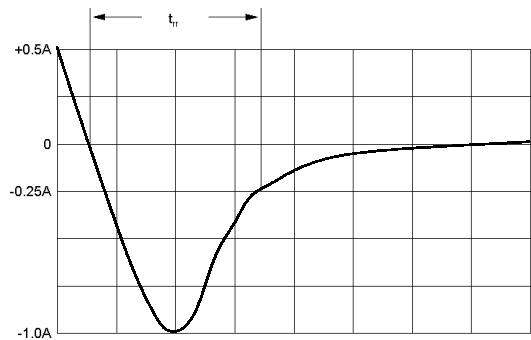


FIG-5 PEAK FORWARD SURGE CURRENT



- 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

THROUGH HOLE - AXIAL LEADED

Taping Specifications

Description	Dimension	Case Style	Specification(mm)
Component Pitch	A	DO-15, DO-35, DO-41, DO-7, A-405, R-3, R-1	5.0±0.5
		5KP, DO-201AD, R-6	10.0±0.5
Inside Tape Spacing	B	All	52.0±0.5
Lead To Lead Eccentricity	[C ₁ - C ₂]	All	1.0 Max.
Lead Extension	D	All	0.5 Max.
Lead Bending	E	All	1.2 Max.
Cumulative Pitch	G	All	1.5 per 10 pitch
Exposed Adhesive	H	All	0.8 Max.
Tape Width	J	All	6.0±0.4
Tape Leader	Beginning and end of reel or ammo pack		300.0 Min.
Empty Spaces	Consecutive missing components not allowed		<0.1%
Polarity Marking	All polarized components shall be oriented in the same direction. The cathode tape shall be colored and the anode tape shall be white or light beige.		

Dimensions apply to both sides of the reel

