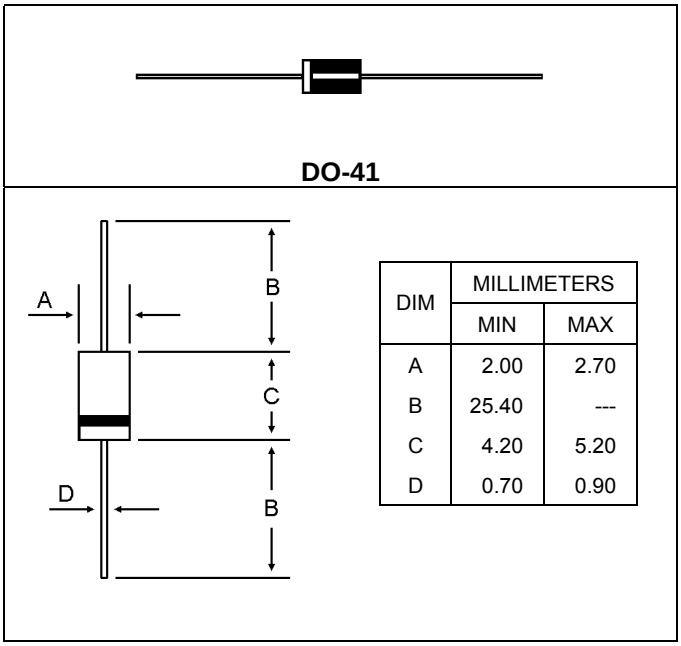
MOSPEC

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)



DIM	MILLIMETERS	
	MIN	MAX
A	2.00	2.70
B	25.40	---
C	4.20	5.20
D	0.70	0.90

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							A
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)	T_{rr}	50				75			ns
Typical Junction Capacitance (Reverse Voltage of 4 volts & f=1 MHz)	C_j	20							pF
Typical Thermal Resistance	$R_{\theta jA}$	95							℃/W
Operating and Storage Junction Temperature Range	T_J , T_{stg}	-65 to +175							℃

UF1001 Thru UF1007

FIG-1 TYPICAL FORWARD CHARACTERISITICS

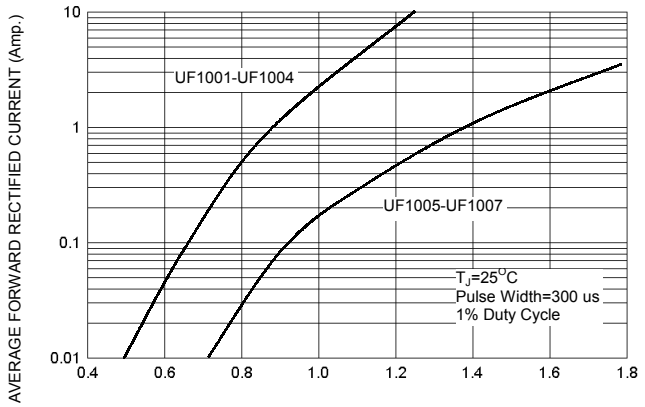


FIG-2 TYPICAL REVERSE CHARACTERISTICS

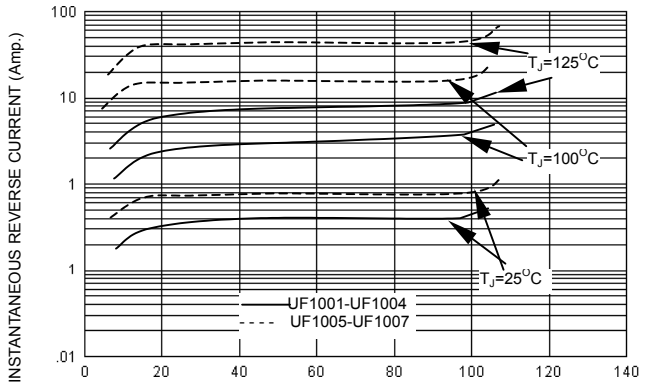


FIG-3 FORWARD CURRENT DERATING CURVE

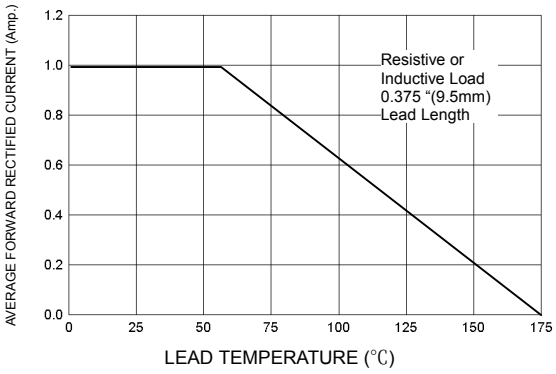


FIG-4TYPICAL JUNCTION CAPACITANCE

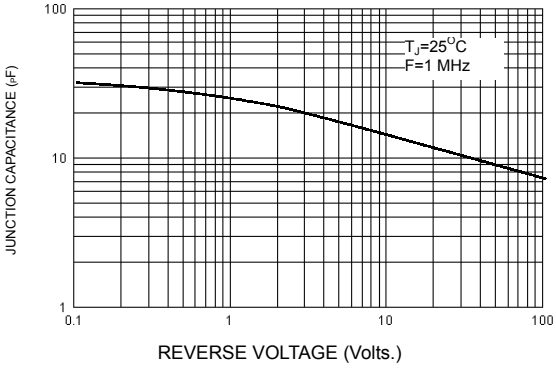
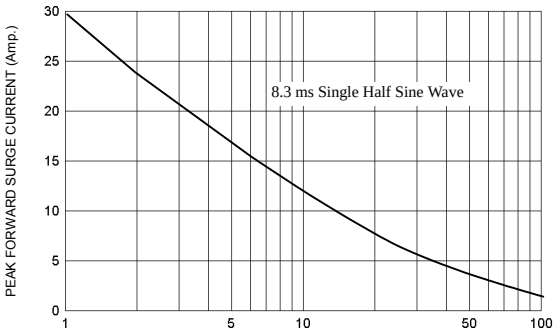
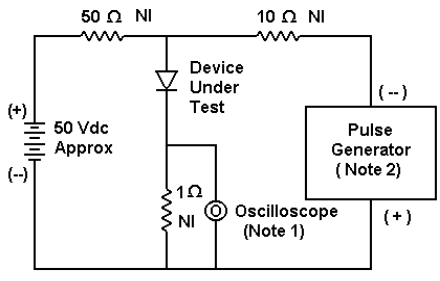
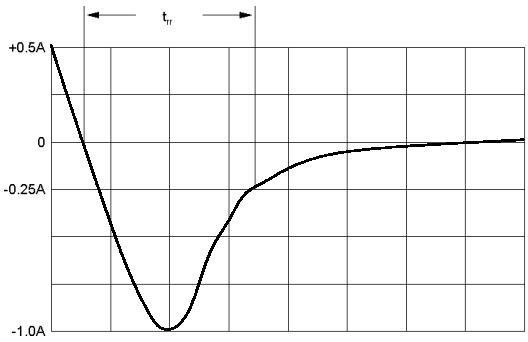


FIG-5PEAK FORWARD SURGE CURRENT





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