

## HIGH EFFICIENCY RECTIFIERS

VOLTAGE RANGE: 50--- 1000 V

CURRENT: 1.0 A

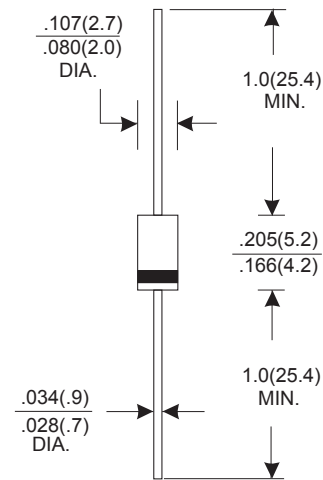
### FEATURES

- Low cost
- Low leakage
- low forward voltage drop
- High cleaned with Alcohol, isopropanol and similar solvents
- The plastic material carries U/L recognition 94V-0

### MECHANICAL DATA

- Case: DO-41, molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any

### DO-41



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted) Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate by 20%.

		UF4001	UF4002	UF4003	UF4004	UF4005	UF4006	UF4007	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current.375"(9.5mm) Lead Length at $T_a=50^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30.0							A
Maximum Instantaneous Forward Voltage at 1.0A	$V_F$	1.0			1.7				V
Maximum reverse current at rated DC blocking voltage	@ $T_A=25$	5.0							$\mu\text{A}$
	@ $T_A=100$	100.0							
Maximum reverse recovery time	$t_{rr}$	50					75		ns
Typical junction capacitance (Note1)	$C_J$	20							pF
Typical thermal resistance(Note2)	$R_{\theta JA}$	60							$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_j$	- 55 ---- + 125							$^\circ\text{C}$
Storage temperature range	$T_{STG}$	- 55 ---- + 150							$^\circ\text{C}$

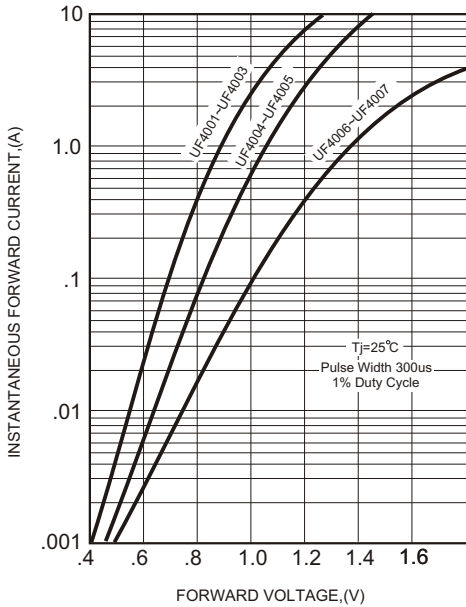
1. Reverse Recovery Time test condition:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$

2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

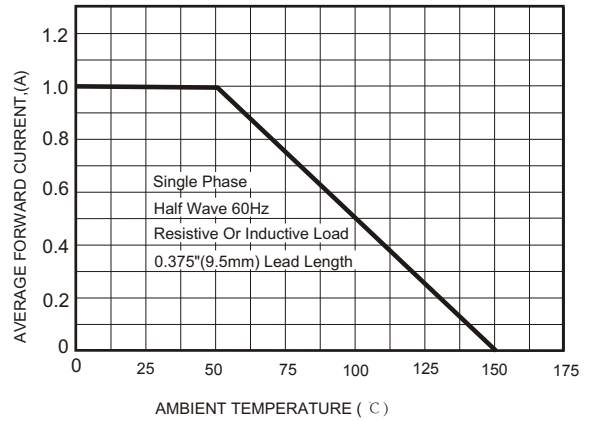


# RATINGS AND CHARACTERISTIC CURVES

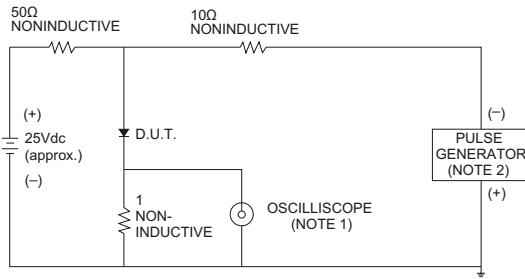
**FIG.1-TYPICAL FORWARD CHARACTERISTICS**



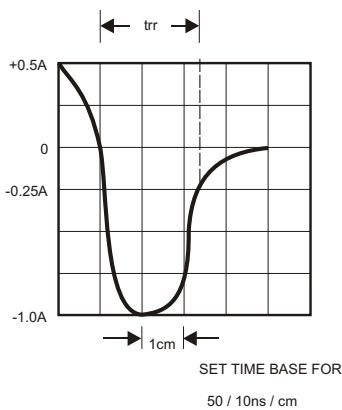
**FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE**



**FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS**



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.  
 2. Rise Time= 10ns max., Source Impedance= 50 ohms.



**FIG.5-TYPICAL JUNCTION CAPACITANCE**

