

### Features

- \* Low Forward Voltage Drop
- \* High Current Capability
- \* High Reliability
- \* High Surge Current Capability

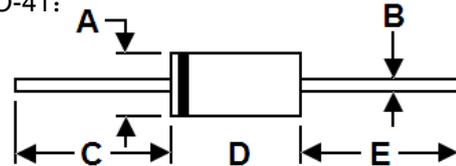


**RoHS**  
COMPLIANT



### Package Outline Dimensions

A-405/DO-41:



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
<b>A</b>	2.0	2.7	0.078	0.107
<b>B(A-405)</b>	0.53	0.64	0.020	0.025
<b>B(DO-41)</b>	0.7	0.9	0.027	0.035
<b>C</b>	25.4	-	1.0	-
<b>D</b>	4.2	5.2	0.165	0.205
<b>E</b>	25.4	-	1.0	-

### Mechanical Data

- \* Case: 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

### Maximum Ratings and Electrical Characteristics

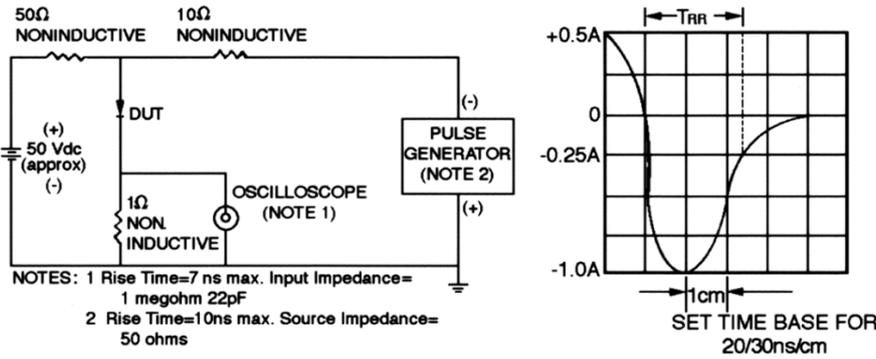
Rating at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Type Number	Symbol	UF4001(L)	UF4002(L)	UF4003(L)	UF4004(L)	UF4005(L)	UF4006(L)	UF4007(L)	Unit
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 D.C Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375" (9.5mm)Lead Length @ $T_A=55^\circ C$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	30							A
Maximum Instantaneous Forward Voltage at 1.0A	$V_F$	1.1			1.7			V	
Maximum D.C Reverse Current @ $T_A=25^\circ C$ at Rated D.C Blocking Voltage @ $T_A=100^\circ C$	$I_R$	5.0 100							$\mu A$
Maximum Reverse Recovery Time(Note1)	$T_{rr}$	50			75			nS	
Typical Junction Capacitance(Note2)	$C_J$	20			15			pF	
Operating and Storage Temperature Range	$T_J/T_{STG}$	-55 to +125 / -55 to +150							$^\circ C$

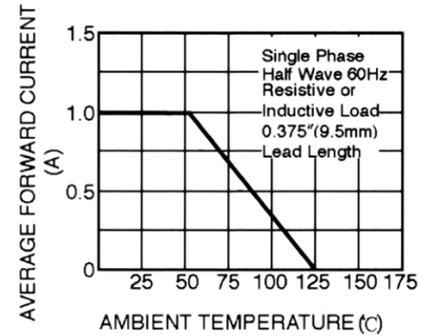
Note:1、 Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$ . 2、 Measured at 1MHz and Applied Reverse Voltage of 4.0V D.C.

### Ratings and Characteristic Curves

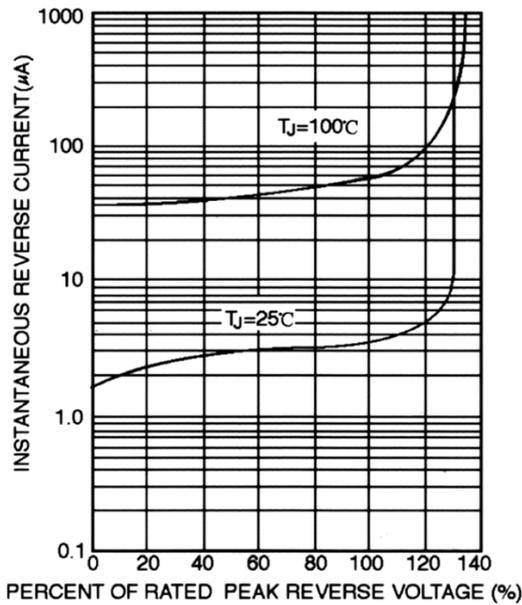
**FIG. 1 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS**



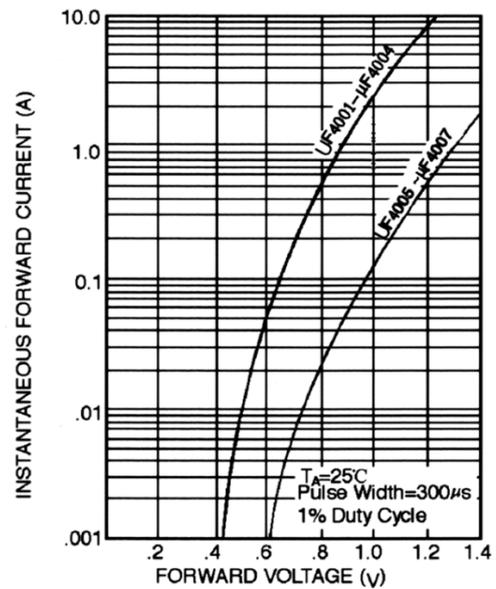
**FIG. 2 – TYPICAL FORWARD CURRENT DERATING CURVE**



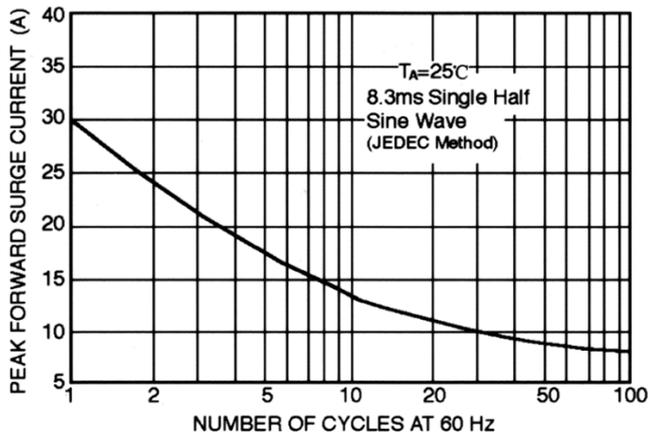
**FIG. 3 – TYPICAL REVERSE CHARACTERISTICS**



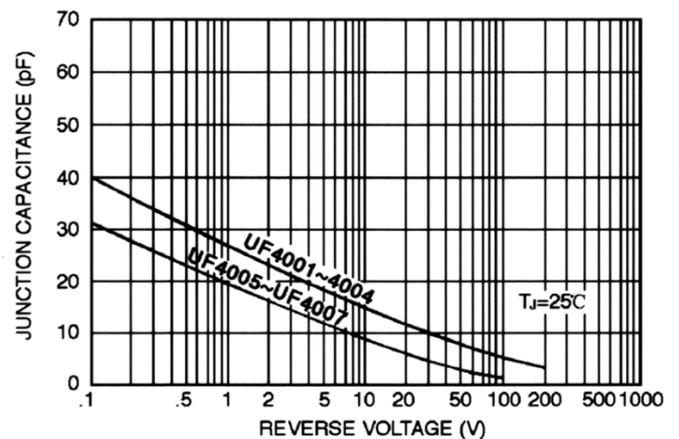
**FIG. 4 – TYPICAL FORWARD CHARACTERISTICS**



**FIG. 5 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG. 6 – TYPICAL JUNCTION CAPACITANCE**





## UF4001(L) THRU UF4007(L) 1.0 Amp. Ultra Fast Rectifiers

### Ordering Information

Part No.	Package	Packing
UF4001~UF4007	A-405/DO-41	3K/AMMO box
UF4001~UF4007	A-405/DO-41	5K/AMMO box
UF4001~UF4007	A-405/DO-41	5K/13" Paper reel
UF4001~UF4007	A-405/DO-41	1K/Bulk packing