

# UF4001 THRU UF4007

## FAST RECOVERY RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts    CURRENT 1.0 Ampere

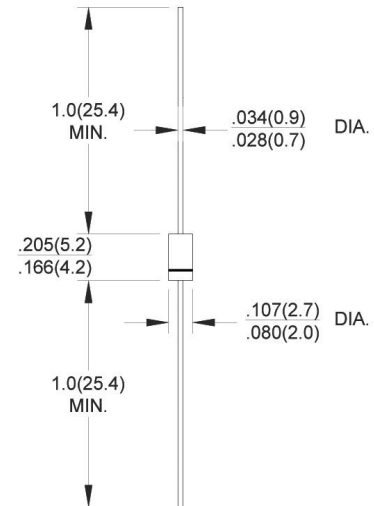
### FEATURES

- ◆ Ultrafast recovery time for high capability
- ◆ Low forward voltage drop
- ◆ Low leakage current
- ◆ High forward surge capability
- ◆ High temperature soldering guaranteed:  
260°C/10 seconds, 0.375" (9.5mm) lead length at 5 lbs(2.3kg) tension

### Mechanical Data

- ◆ Case: Transfer molded plastic
- ◆ Epoxy: UL94V-0 rate flame retardant
- ◆ Polarity: Color band denotes cathode end
- ◆ Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- ◆ Mounting position: Any
- ◆ Weight: 0.012ounce, 0.33 grams

### DO-41



Dimensions in inches and (millimeters)

### 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%

PARAMETER	SYMBOL	UF 4001	UF 4002	UF 4003	UF 4004	UF 4005	UF 4006	UF 4007	UNIT
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at TA=75°C	I(AV)	1.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A	VF	1.1				1.7			Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	IR	TA = 25°C	5.0						uA
		TA = 125°C	50						
Maximum Reverse Recovery Time(NOTE1)	TRR	50				75			nS
Typical Junction Capacitance (NOTE 2)	CJ	20				15			pF
Typical Thermal Resistance (NOTE 3)	RθJA	60							°C/W
Operating and Storage Temperature Range	TJ,TSTG	-55 to +150							°C

Note: 1. Reverse Recovery Test Conditions: If=0.5A, Ir=1.0A, Irr=0.25A.

2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.

3. Thermal Resistance from Junction to Ambient at .375"(9.5mm)lead length, P.C. board mounted.

# UF4001 THRU UF4007

## FAST RECOVERY RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts    CURRENT 1.0 Ampere

### RATING AND CHARACTERISTIC CURVES UF4001 THRU UF4007

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

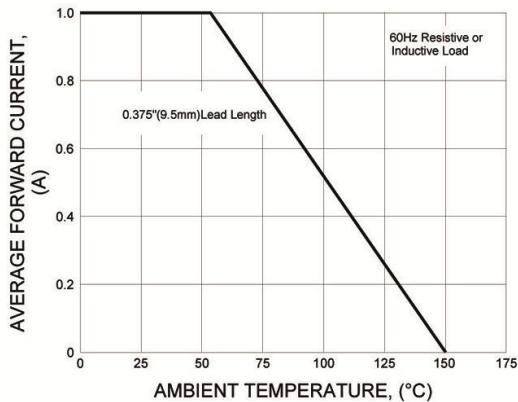


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

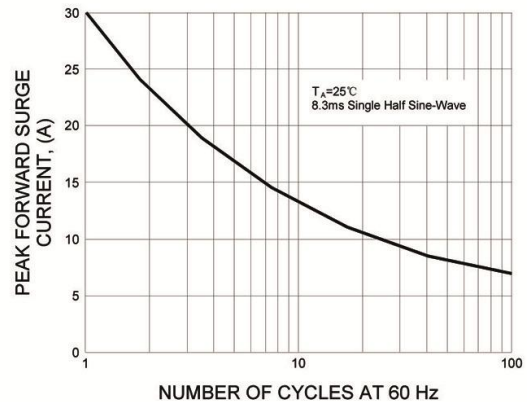


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

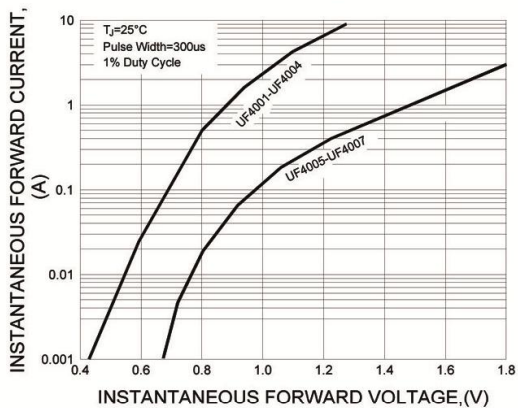


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

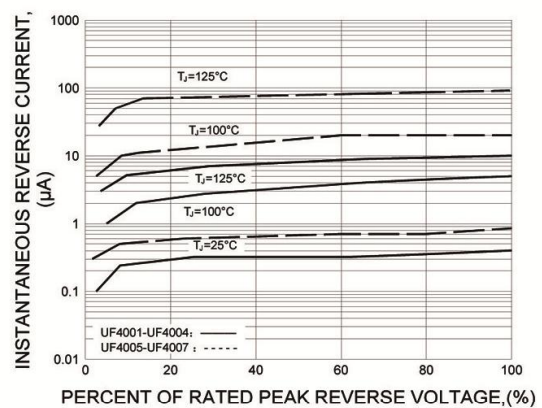
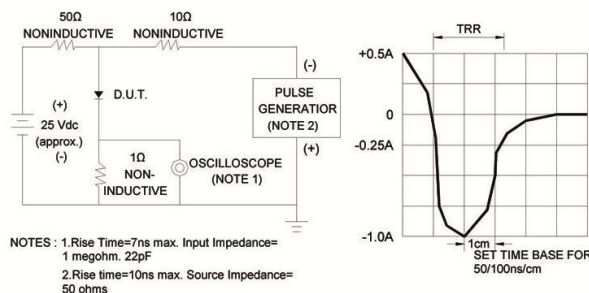


FIG. 6-TEST CIRCUIT DIAGRAM AND FORWARD SURGE CURRENT



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.