



# WEET Technology Company Limited

## High Efficiency Rectifiers

UF4001 THRU UF4007

VOLTAGE RANGE

50 to 1000 Volts

CURRENT

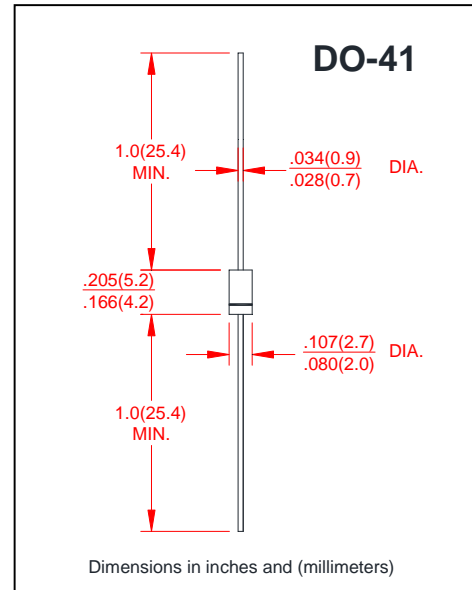
1.0 Ampere

### 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



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOLS	UF 4001	UF 4002	UF 4003	UF 4004	UF 4005	UF 4006	UF 4007	UNI TS
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at $T_A=55^\circ\text{C}$	$I_{(AV)}$	1.0							Amps
Peak Forward Surge Current 8.3mS single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A	$V_F$	1.1			1.7				Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A = 25^\circ\text{C}$	5.0							$\mu\text{A}$
	$T_A = 100^\circ\text{C}$	50							
Maximum Reverse Recovery Time (NOTE 1)	$T_{RR}$	50			75				nS
Typical Junction Capacitance (NOTE 2)	$C_J$	20			15				pF
Typical Thermal Resistance (NOTE 3)	$R_{\theta JA}$	60							$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$

#### Notes:

- 1.Reverse Recovery Test Conditions:  $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ .
- 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.



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CURRENT 1.0 Ampere

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

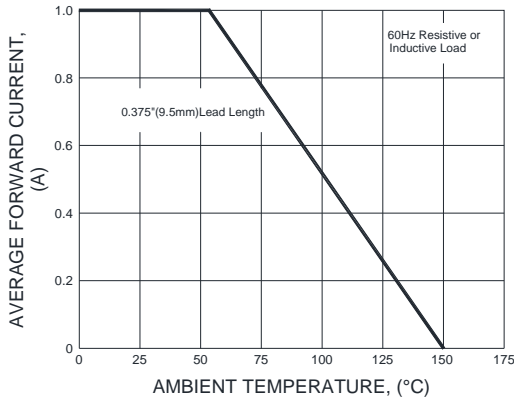


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

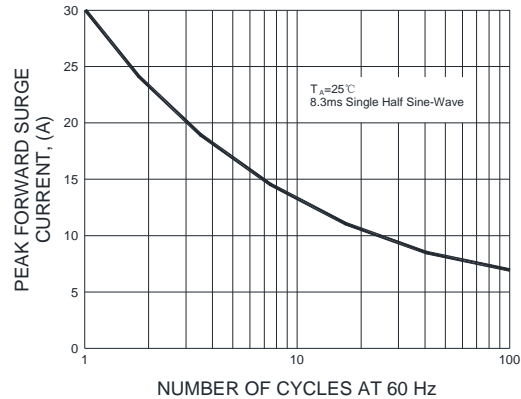


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

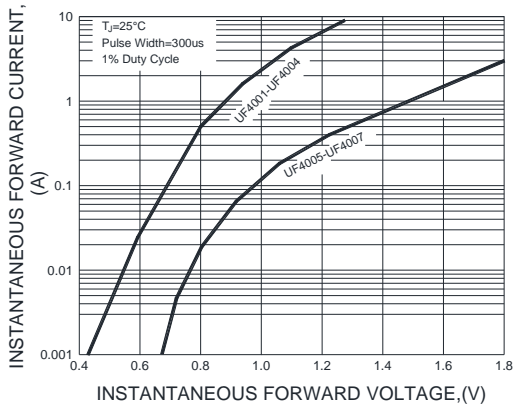


FIG.4-TYPICAL REVERSE CHARACTERISTICS

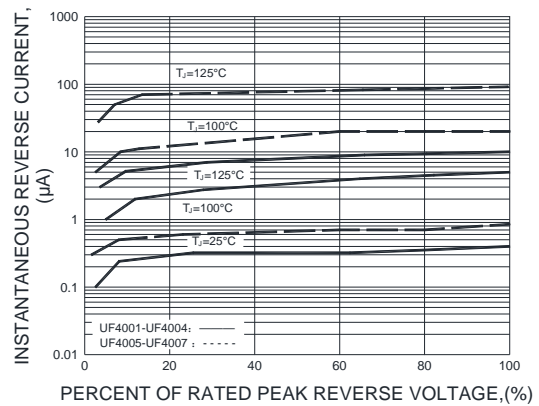
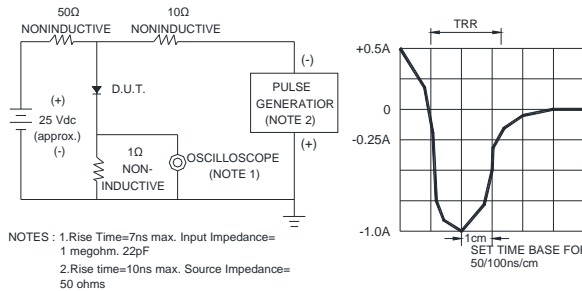


FIG.6-TEST CIRCUIT DIAGRAM AND FORWARD SURGE CURRENT



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