



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

UF4001
THRU
UF4007

TECHNICAL SPECIFICATIONS OF ULTRA FAST RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 1.0 Ampere

FEATURES

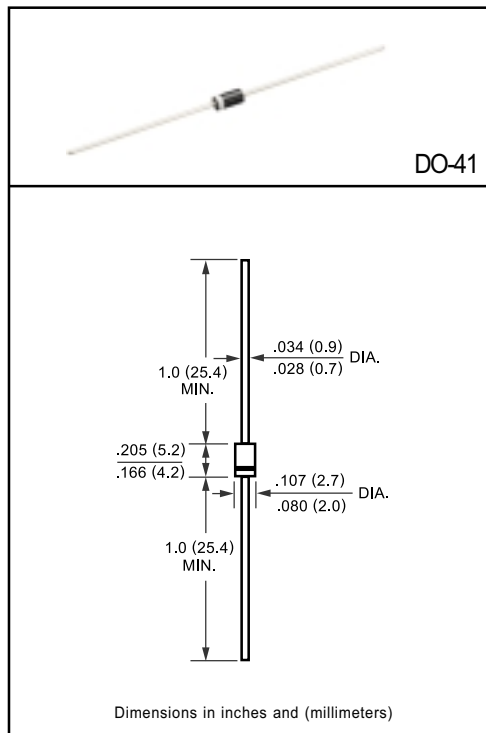
- * Low power loss, high efficiency
- * Low leakage
- * Low forward voltage
- * High current capability
- * High speed switching
- * High surge capability
- * High reliability

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.35 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%.



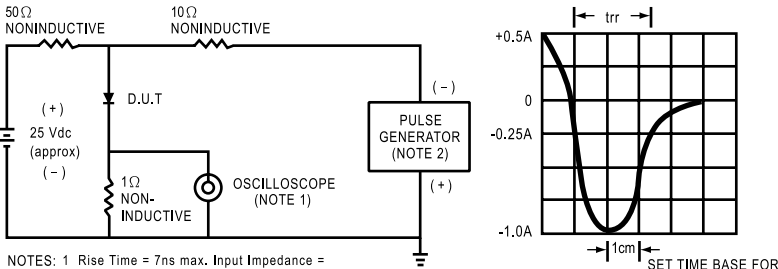
	SYMBOL	UF4001	UF4002	UF4003	UF4004	UF4005	UF4006	UF4007	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	800	Volts
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at TA= 50°C	Io	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A DC	VF	1.0				1.7			Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage TA = 25°C	IR	5.0							uAmps
Maximum Full Load Reverse Current Average, Full Cycle .375*(9.5mm) lead length at TL = 55°C		100							uAmps
Maximum Reverse Recovery Time (Note 1)	trr	50				75			nSec
Typical Junction Capacitance (Note 2)	CJ	15				12			pF
Operating and Storage Temperature Range	TJ, TSTG	-65 to + 150							°C

NOTES : 1. Test Conditions: IF = 0.5A, IR = 1.0A, IRR = 0.25A
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts



RATING AND CHARACTERISTIC CURVES (UF4001 THRU UF4007)

FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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

FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

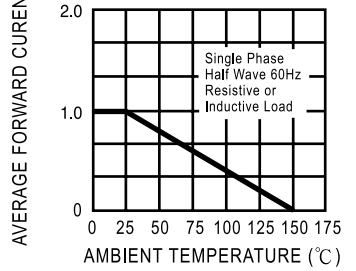


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

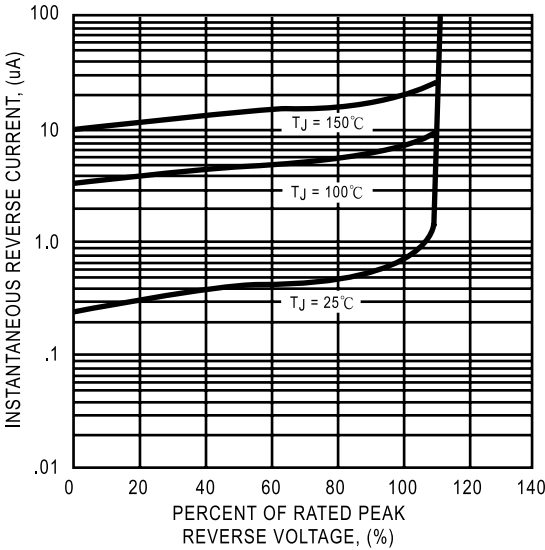


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

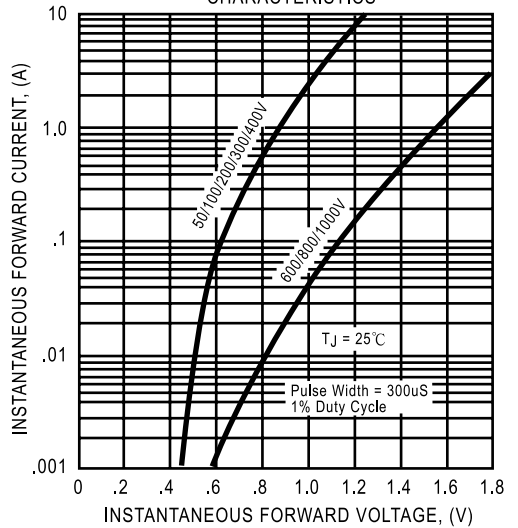


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

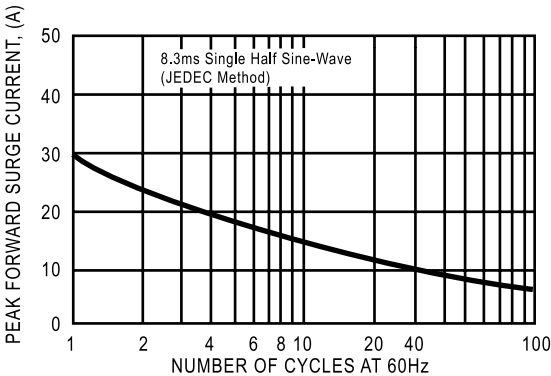
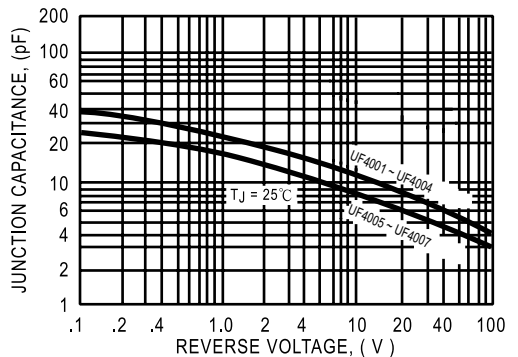


FIG. 6 - TYPICAL JUNCTION CAPACITANCE



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NEXT

BACK

EXIT