



# UF4001 THRU UF4007

## Ultra Fast Rectifiers

### FEATURES

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Ideally suited for use in very high frequency switching power supplies, inverters and as free wheeling diodes
- Ultrafast recovery time for high efficiency
- Excellent high temperature switching
- Soft recovery characteristics

### MECHANICAL DATA

Case: Molded plastic, DO-41

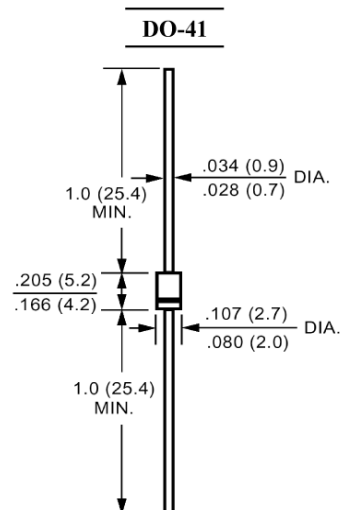
Epoxy: UL 94V-0 rate flame retardant

Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed

Polarity: Color band denotes cathode end

Mounting position: Any

Weight: 0.012ounce, 0.33gram



Dimensions in inches and (millimeters)

### 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	UF4001	UF4002	UF4003	UF4004	UF4005	UF4006	UF4007	Units
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at T <sub>A</sub> =55°C	I <sub>(AV)</sub>	1.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	30							Amp
Maximum Forward Voltage at 1.0A DC and 25°C	V <sub>F</sub>	1.0				1.7			Volts
Maximum Reverse Current at T <sub>A</sub> =25°C at Rated DC Blocking Voltage T <sub>A</sub> =100°C	I <sub>R</sub>	5.0					500		uAmp
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	17							
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	60							°C/W
Maximum Reverse Recovery Time (Note 3)	T <sub>RR</sub>	50				75			nS
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	-55 to +125							°C

### NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance from Junction to Ambient 0.375"(9.5mm) lead length P.C.B. Mounted.

3- Reverse Recovery Test Conditions:  $I_F=.5A$ ,  $I_R=1A$ ,  $I_{RR}=.25A$ .



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### RATINGS AND CHARACTERISTIC CURVES

