UF4001 THRU UF4007

ULTRAFAST RECOVERY RECTIFIER

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HORNBY ELECTRONIC

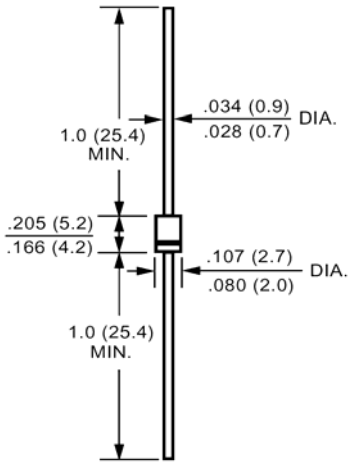
REVERSE VOLTAGE: **50 to 1000 VOLTS**

FORWARD CURRENT: **1.0 AMPERE**

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

DO-41



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic, DO-41
Epoxy: UL 94V-O 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

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60H_Z, 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_{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 .375"(9.5mm) Lead Length at T_A=55℃	$I_{(AV)}$	1.0							**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							**Amp**
Maximum Forward Voltage at 1.0A DC and 25℃	V_F	1.0				1.7			**Volts**
Maximum Reverse Current at T_A=25℃	I_R	5.0							**uAmp**
at Rated DC Blocking Voltage T_A=100℃		50							
Typical Junction Capacitance (Note 1)	C_J	17							**pF**
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	60							**℃/W**
Maximum Reverse Recovery Time (Note 3)	T_{RR}	50				75			**nS**
Operating and Storage Temperature Range	T_J，Tstg	-55 to +150							**℃**

NOTES:

1- Measured at 1 MH_Z 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

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

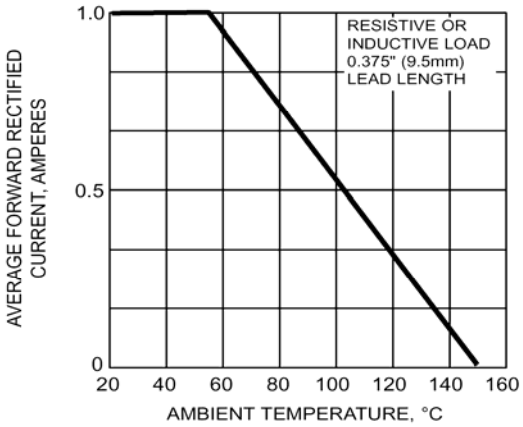

FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

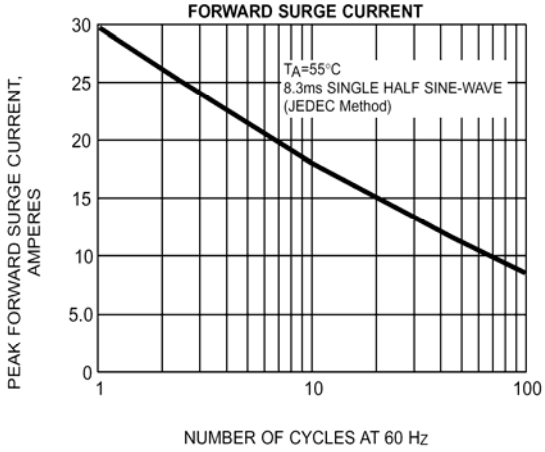

FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

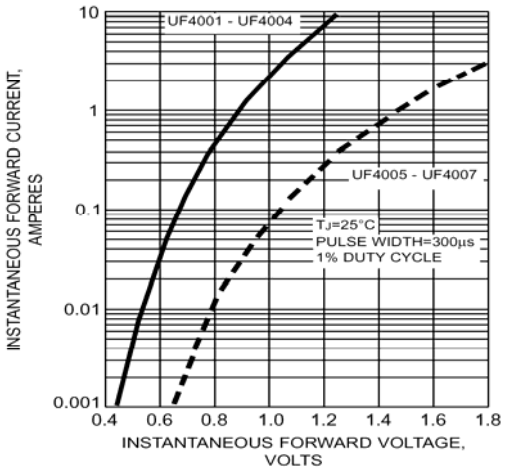

FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

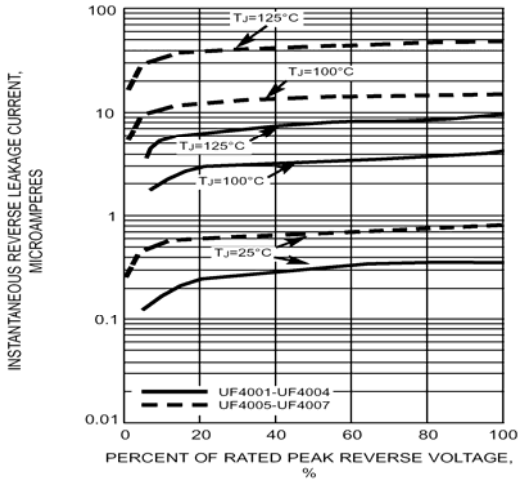

FIG. 5 - TYPICAL JUNCTION CAPACITANCE