

UF4001 THRU UF4007

1.0 AMP. HIGH EFFICIENT RECTIFIERS

Voltage Range 50 to 1000 Volts Current 1.0Amperes

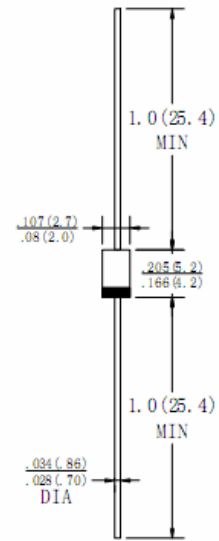
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FEATURES

- ◆ Low forward voltage drop
- ◆ High current capability
- ◆ High reliability
- ◆ High surge current capability

Mechanical Data

- ◆ Cases: Molded plastic
- ◆ Epoxy: UL 94V-0 Rate flame retardant
- ◆ Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- ◆ Polarity: Color band denotes cathode end
- ◆ High temperature soldering guaranteed:
250°C/10 seconds/.375,(9.5mm)
lead lengths at 5 lbs.,(2.3kg)tension
- ◆ Weight:0.34 gram



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%

Type Number	SYMBOL	UF4001	UF4002	UF4003	UF4004	UF4005	UF4006	UF4007	UNITS	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V	
Maximum DC blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V	
Maximum Average Forward Rectified Current .375"(9.5mm) Lead length @ T _A =55°C	I _{F(AV)}	1.0							A	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I _{FSM}	30							A	
Maximum Instantaneous Forward Voltage @1.0A	V _F	1.0		1.3		1.7			V	
Maximum DC Reverse Current @ T _A =25°C at rated DC Blocking voltage @ T _A =100°C	I _R	5.0				100				µA
Maximum Reverse Recovery Time (Note 1)	T _{RR}	50				75				nS
Typical Thermal Resistance (Note2)	R _{θJA}	70							°C/W	
Operating Temperature Range	T _J	-65 to +125							°C	
Storage Temperature Range	T _{STG}	-65 to +150							°C	

NOTES: 1.Reverse Recovery Test conditions: I_F=0.5A,I_R=1.0A,I_{RR}=0.25A.

2. Mount on Cu-Pad Size 5mm x 5mm on P.C.B.

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RATING AND CHARACTERISTIC CURVES UF4001 THRU UF4007

FIG.1-MAXIMUM NONO-REPTITIVE FORWARD SURGE CURRENT PER BRIDGE ELELMENT

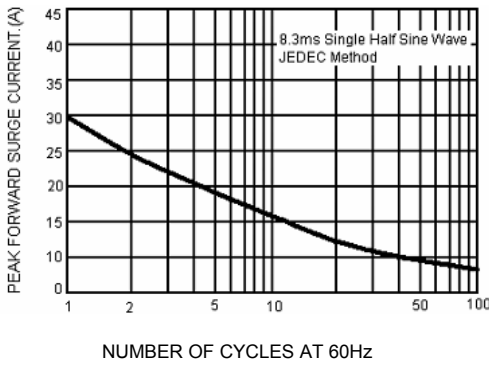


FIG. 2-MAXIMUM FORWARD CURRENT DERATING CURVE

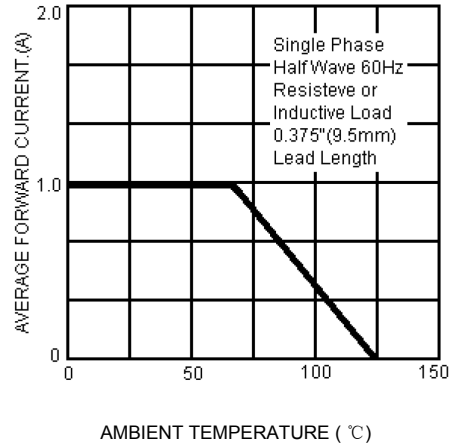


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

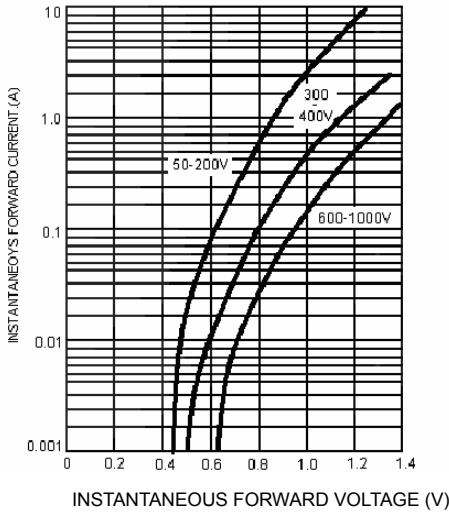


FIG. 4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

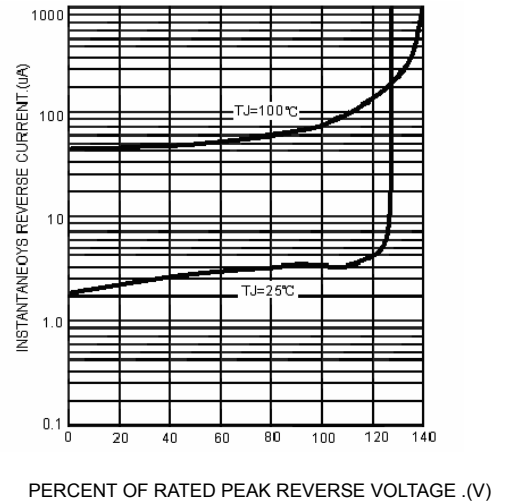
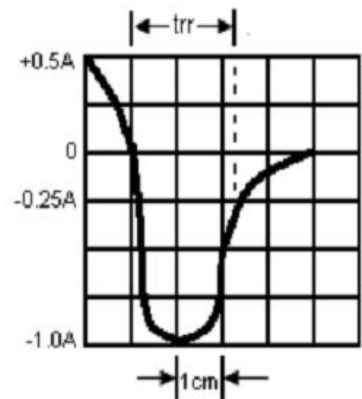
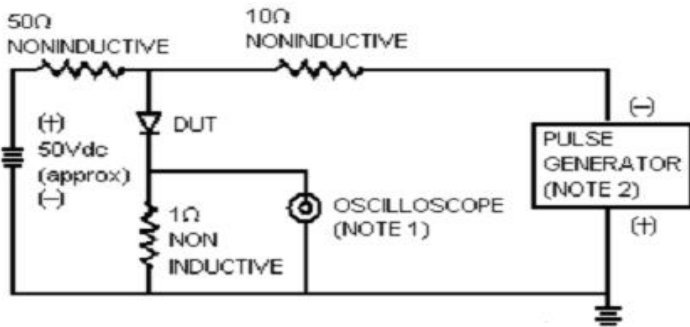


FIG-5 REVERSE RECOVER TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



- NOTES:1. Rise Time=7 ns max. input impedance=1 megohm 22 pf
- 2. Rise Time=10ns max. Source Impedance=50 ohms

SET TIME BASE FOR 5/10ns/cm

Note: Specifications are subject to change without notice.