

# HER101/UF4001 THRU HER108/UF4007

## 1.0 AMP. HIGH EFFICIENT RECTIFIERS

**Voltage Range**  
50 to 1000 VOLTS  
**Current**  
1.0 Amperes

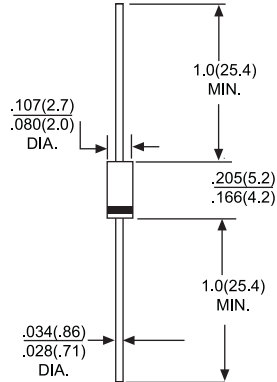
### Features

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

### Mechanical Data

- Cases: 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
- High temperature soldering guaranteed: 250°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- Weight: 0.34 gram

### DO-41



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

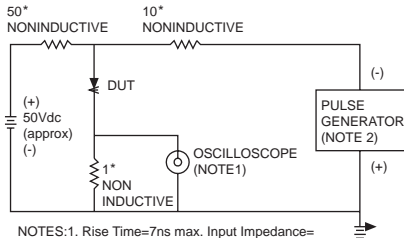
Rating at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

Type Number		HER101 UF4001	HER102 UF4002	HER103 UF4003	HER104	HER105 UF4004	HER106 UF4005	HER107 UF4006	HER108 UF4007	UNITS	
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	300	400	600	800	1000	V	
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	210	280	420	560	700	V	
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	300	400	600	800	1000	V	
Maximum Average Forward Rectified Current .375" (9.5mm) Lead Length @ T <sub>A</sub> = 55°C	I <sub>F(AV)</sub>	1.0									A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I <sub>FSM</sub>	30									A
Maximum Instantaneous Forward Voltage @ 1.0A	V <sub>F</sub>	1.0			1.3		1.7			V	
Maximum DC Reverse Current @ T <sub>A</sub> = 25°C at Rated DC Blocking Voltage @ T <sub>A</sub> = 100°C	I <sub>R</sub>	5.0 100									uA uA
Maximum Reverse Recovery Time (Note 1)	T <sub>RR</sub>	50			75						nS
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	20			15						pF
Operating Temperature Range	T <sub>J</sub>	-55 to +125									°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150									°C

NOTES: 1. Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A  
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

# RATING AND CHARACTERISTIC CURVES HER101/UF4001 THRU HER108/UF4007

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



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

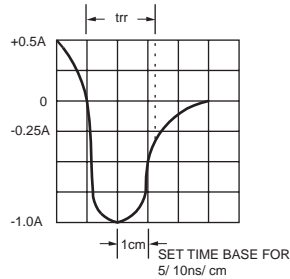


FIG.2-MAXIMUM AVERAGE FORWARD CURRENT DERATING

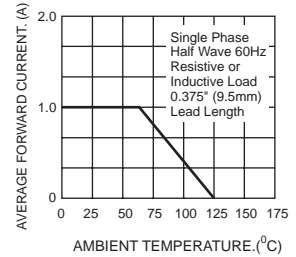


FIG.3-TYPICAL REVERSE CHARACTERISTICS

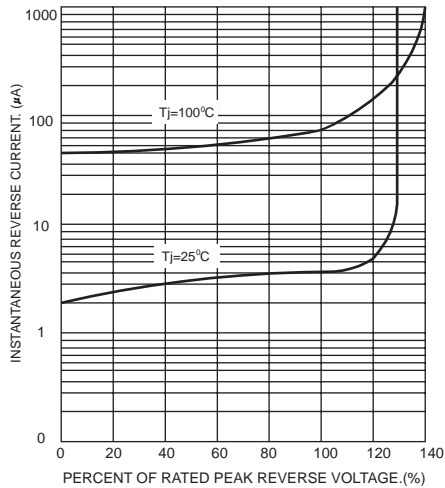


FIG.4-TYPICAL FORWARD CHARACTERISTICS

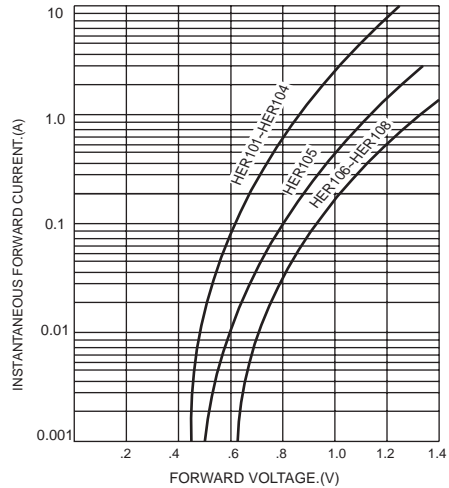


FIG.5-MAXIMUM NON-REPETITIVE SURGE CURRENT

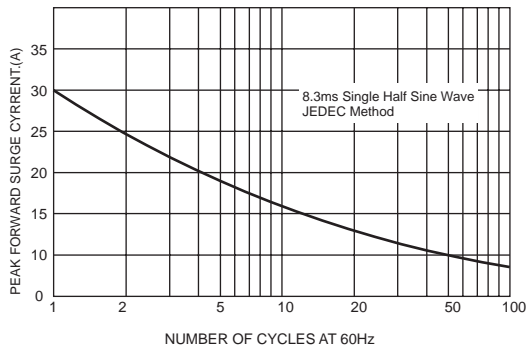


FIG.6-TYPICAL JUNCTION CHARACTERISTICS

