



# HER101S THRU HER108S

## 1.0 AMP. High Efficient Rectifiers



Voltage Range  
50 to 1000 Volts  
Current  
1.0 Ampere

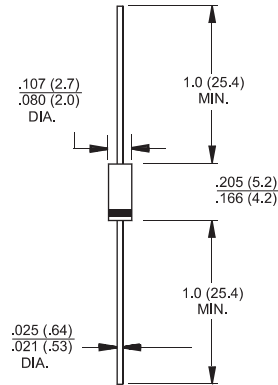
### Features

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

### Mechanical Data

- ✧ Cases: Molded plastic A-405
- ✧ 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: 260°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ✧ Weight: 0.22gram

### A-405



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Rating 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%

Type Number	Symbol	HER 101S	HER 102S	HER 103S	HER 104S	HER 105S	HER 106S	HER 107S	HER 108S	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	210	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @ $T_A = 55^\circ\text{C}$	$I_{(AV)}$	1.0								A
Peak Forward Surge current, 8.3 ms 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 @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$	$I_R$	5.0				100				uA uA
Maximum Reverse Recovery Time ( Note 1 )	$T_{rr}$	50				75				nS
Typical Junction Capacitance ( Note 2 )	$C_j$	20				15				pF
Typical Thermal Resistance ( Note 3 )	$R_{\theta JA}$	100								°C/W
Operating Temperature Range	$T_J$	-65 to +150								°C
Storage Temperature Range	$T_{STG}$	-65 to +150								°C

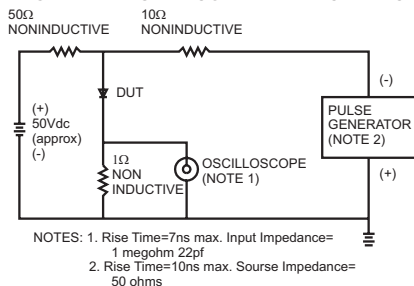
Notes: 1. Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$

2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

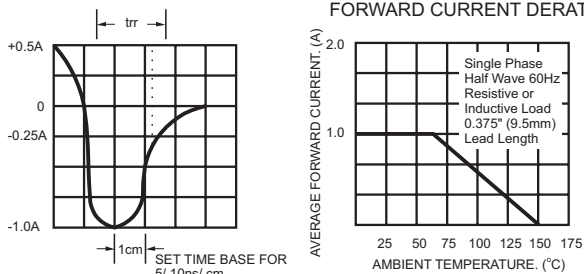
3. Mount on Cu-Pad Size 5mm x 5mm on PCB.

## RATINGS AND CHARACTERISTIC CURVES (HER101S THRU HER108S)

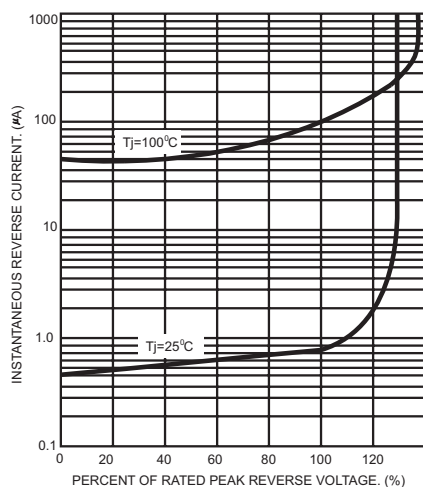
**FIG.1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**



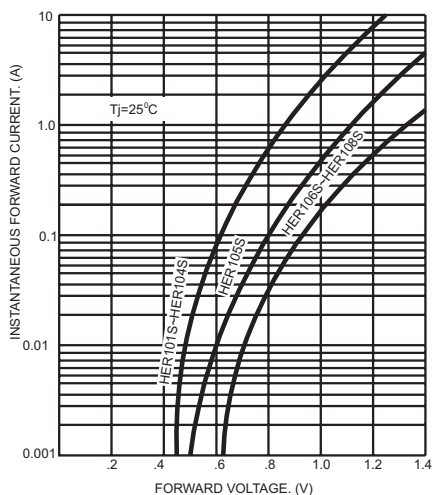
**FIG.2- MAXIMUM AVERAGE FORWARD CURRENT DERATING**



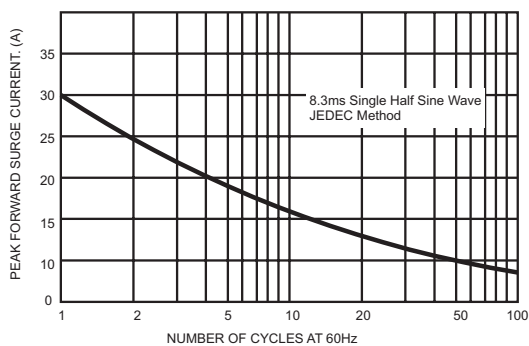
**FIG.3- TYPICAL REVERSE CHARACTERISTICS**



**FIG.4- TYPICAL FORWARD CHARACTERISTICS**



**FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG.6- TYPICAL JUNCTION CAPACITANCE**

