

# HER1001G - HER1008G

10.0 AMPS. Glass Passivated High Efficient Rectifiers  
**TO-220AB**

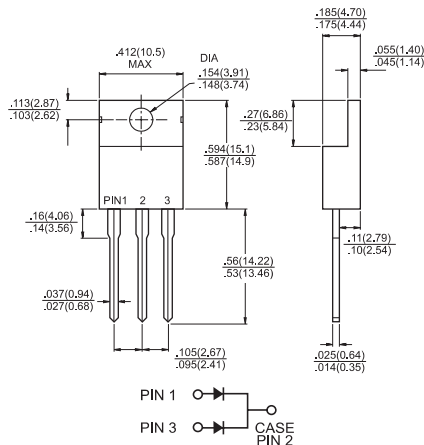


## Features

- ✧ Glass passivated chip junction.
- ✧ High efficiency, Low VF
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability
- ✧ For use in low voltage, high frequency inverter, free wheeling, and polarity protection application.

## Mechanical Data

- ✧ Case: TO-220AB molded plastic
- ✧ Epoxy: UL 94V0 rate flame retardant
- ✧ Terminals: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: As marked
- ✧ High temperature soldering guaranteed:  
260°C/10 seconds .16", (4.06mm) from case.
- ✧ Weight: 2.24 grams



Dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

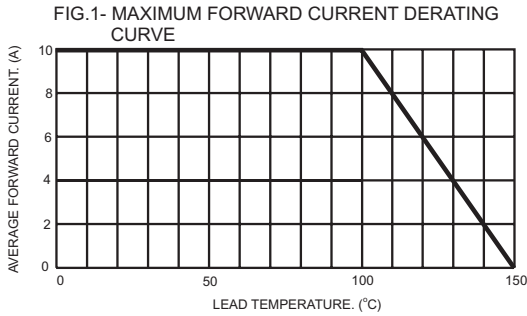
Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

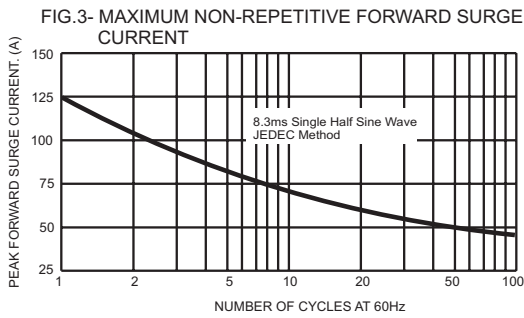
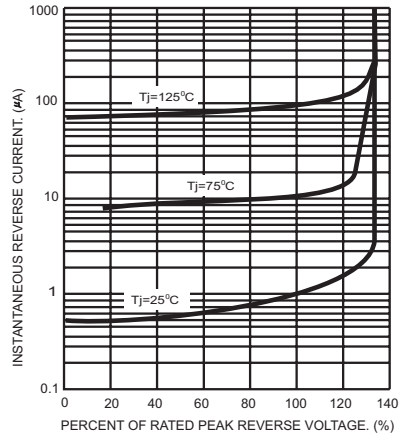
Type Number	Symbol	HER	HER	HER	HER	HER	HER	HER	HER	Units	
		1001G	1002G	1003G	1004G	1005G	1006G	1007G	1008G		
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	600	800	1000	V	
Maximum RMS Voltage	$V_{RMS}$	35	70	140	210	280	420	560	700	V	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	300	400	600	800	1000	V	
Maximum Average Forward Rectified Current @ $T_C = 100^\circ C$	$I_{(AV)}$	10								A	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	125								A	
Maximum Instantaneous Forward Voltage @ 5.0A	$V_F$	1.0			1.3		1.7			V	
Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=125^\circ C$	$I_R$	10 400								$\mu A$ $\mu A$	
Maximum Reverse Recovery Time ( Note 1)	$T_{rr}$	50					80				nS
Typical Junction Capacitance ( Note 2 )	$C_j$	60					40				pF
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	1.5								$^\circ C/W$	
Operating Temperature Range	$T_J$	-65 to +150								$^\circ C$	
Storage Temperature Range	$T_{STG}$	-65 to +150								$^\circ C$	

- 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. Mounted on Heatsink Size of 2" x 3" x 0.25" Al-Plate.

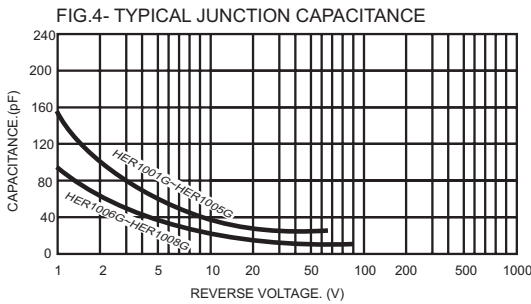
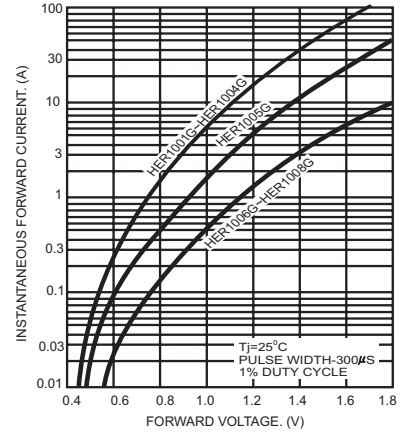
## RATINGS AND CHARACTERISTIC CURVES (HER1001G THRU HER1008G)



**FIG.2- TYPICAL REVERSE CHARACTERISTICS**



**FIG.5- TYPICAL FORWARD CHARACTERISTICS**



**FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**

