



# HER601G THRU HER608G

6.0 AMPS. Glass Passivated High Efficient Rectifiers



Voltage Range  
50 to 1000 Volts  
Current  
6.0 Amperes

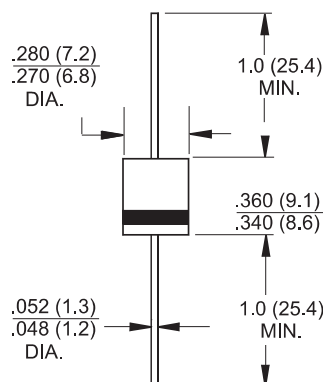
## Features

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

## Mechanical Data

- ✧ Case: Molded plastic
- ✧ 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
- ✧ Mounting position: Any
- ✧ Weight: 1.65 grams

## R-6



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 601G    | HER 602G | HER 603G | HER 604G | HER 605G | HER 606G | HER 607G | HER 608G | Units    |
|--------------------------------------------------------------------------------------------------------|-------------------|-------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Maximum Recurrent 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>(AV)</sub> | 6.0         |          |          |          |          |          |          |          | A        |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )    | I <sub>FSM</sub>  | 150         |          |          |          |          |          |          |          | A        |
| Maximum Instantaneous Forward Voltage @ 6.0A                                                           | 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> =125°C | I <sub>R</sub>    | 10.0<br>200 |          |          |          |          |          |          |          | uA<br>uA |
| Maximum Reverse Recovery Time (Note 1)                                                                 | T <sub>rr</sub>   | 50          |          |          |          |          | 75       |          |          | nS       |
| Typical Junction Capacitance (Note 2)                                                                  | C <sub>j</sub>    | 80          |          |          |          |          | 65       |          |          | pF       |
| Typical Thermal Resistance (Note 3)                                                                    | Rθ <sub>JA</sub>  | 37          |          |          |          |          |          |          |          | °C/W     |
| Operating Temperature Range                                                                            | T <sub>J</sub>    | -65 to +150 |          |          |          |          |          |          |          | °C       |
| Storage Temperature Range                                                                              | T <sub>STG</sub>  | -65 to +150 |          |          |          |          |          |          |          | °C       |

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

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

3. Mount on Cu-Pad Size 16mm x 16mm on P.C.B

# RATINGS AND CHARACTERISTIC CURVES (HER601G THRU HER608G)

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

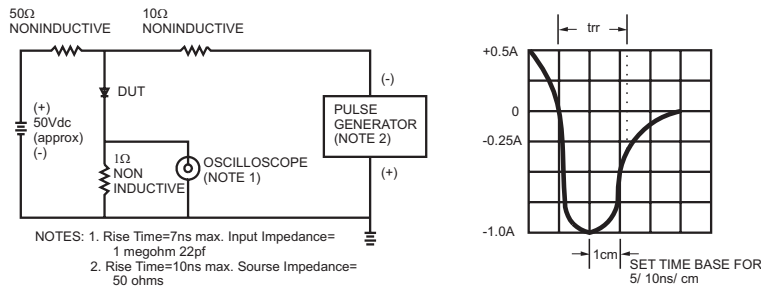


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

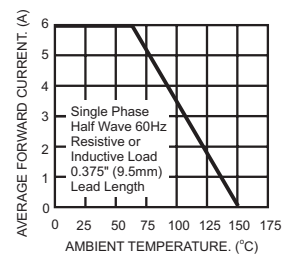


FIG.3- TYPICAL REVERSE CHARACTERISTICS

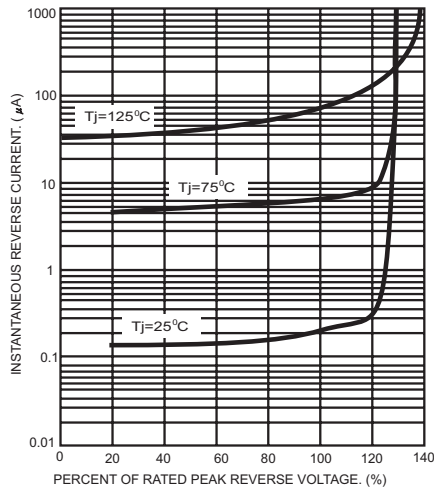


FIG.4- TYPICAL FORWARD CHARACTERISTICS

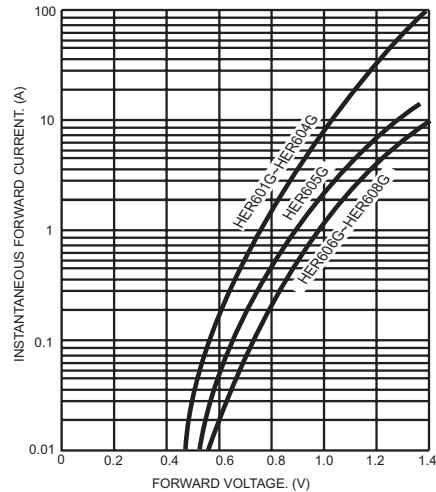


FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

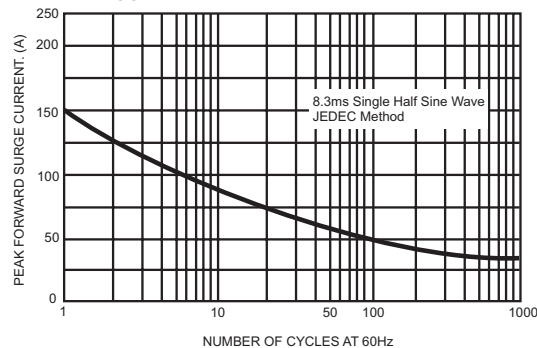


FIG.6- TYPICAL JUNCTION CAPACITANCE

