



# HER101G thru HER108G

Glass Passivated High Efficient Rectifiers  
Reverse Voltage 50 to 1000 Volts Forward Current 1.0 Ampere

## Features

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

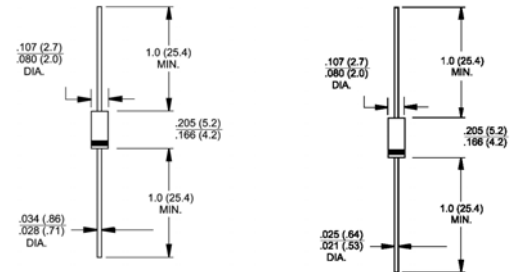


DO-204AL (DO-41)

A-405

## Mechanical Data

- ◆ Case: Molded plastic DO-204AL(DO-41)/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:  
250°C/10 seconds .375" (9.5mm) lead  
lengths at 5 lbs., (2.3kg) tension
- ◆ Weight: DO-41 - 0.012 ounce, 0.335 gram  
A-405 - 0.008 ounce, 0.22 gram



Note: Lead diameter is 0.025(0.64)/0.021(0.53) for part numbers from  
HER101SG thru HER108SG

## Maximum Ratings and Electrical Characteristics

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

| Parameter                                                                                                 | Symbols                              | HER<br>101G | HER<br>102G | HER<br>103G | HER<br>104G | HER<br>105G | HER<br>106G | HER<br>107G | HER<br>108G | Units    |
|-----------------------------------------------------------------------------------------------------------|--------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------|
| Maximum repetitive peak reverse voltage                                                                   | V <sub>RRM</sub>                     | 50          | 100         | 200         | 300         | 400         | 600         | 800         | 1000        | Volts    |
| Maximum RMS voltage                                                                                       | V <sub>RMS</sub>                     | 35          | 70          | 140         | 210         | 280         | 420         | 560         | 700         | Volts    |
| Maximum DC blocking voltage                                                                               | V <sub>DC</sub>                      | 50          | 100         | 200         | 300         | 400         | 600         | 800         | 1000        | Volts    |
| Maximum average forward rectified current<br>.375" (9.5mm) lead length @T <sub>A</sub> =55°C              | I <sub>(AV)</sub>                    | 1.0         |             |             |             |             |             |             |             | Amp      |
| Peak forward surge current, 8.3ms single<br>half sine-wave superimposed on rated load<br>(JEDEC Method)   | I <sub>FSM</sub>                     | 30.0        |             |             |             |             |             |             |             | Amps     |
| Maximum instantaneous forward voltage @ 1.0A                                                              | V <sub>F</sub>                       | 1.0         |             |             |             | 1.3         | 1.7         |             |             | Volts    |
| Maximum DC reverse current @ T <sub>A</sub> =25°C<br>at rated DC blocking voltage @ T <sub>A</sub> =125°C | I <sub>R</sub>                       | 5.0         |             |             |             | 100         |             |             |             | µA<br>µA |
| Maximum reverse recovery time (Note 1)                                                                    | t <sub>tr</sub>                      | 50          |             |             |             |             | 75          |             |             | nS       |
| Typical junction capacitance (Note 2)                                                                     | C <sub>j</sub>                       | 20          |             |             |             |             | 15          |             |             | pF       |
| Typical thermal resistance                                                                                | R <sub>θJA</sub><br>R <sub>θJC</sub> | 60<br>18    |             |             |             |             |             |             |             | °C/W     |
| Operating temperature range                                                                               | T <sub>j</sub>                       | -55 to +150 |             |             |             |             |             |             |             | °C       |
| Storage temperature range                                                                                 | T <sub>STG</sub>                     | -55 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.

# RATINGS AND CHARACTERISTIC CURVES

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

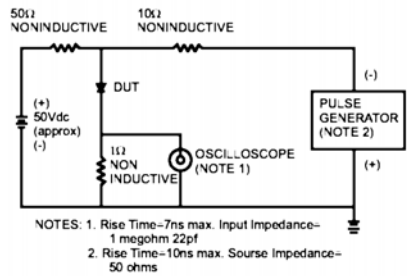


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

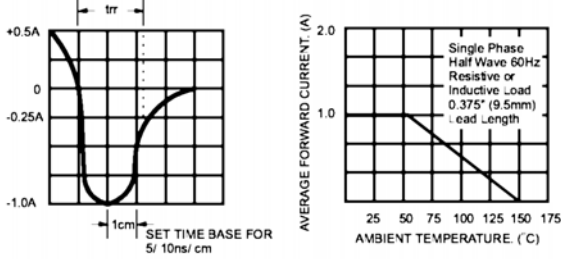


FIG.3- TYPICAL REVERSE CHARACTERISTICS

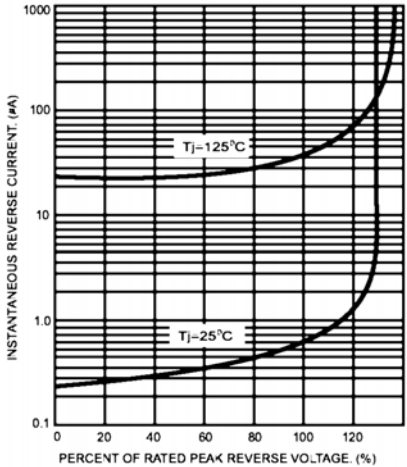


FIG.4- TYPICAL FORWARD CHARACTERISTICS

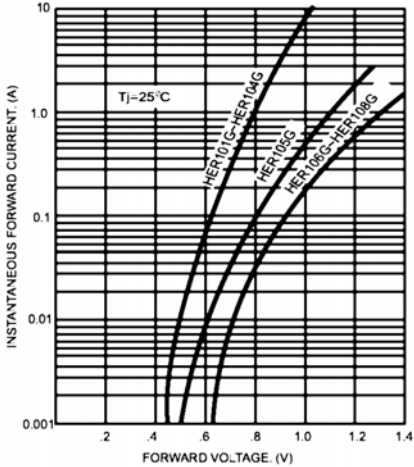


FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

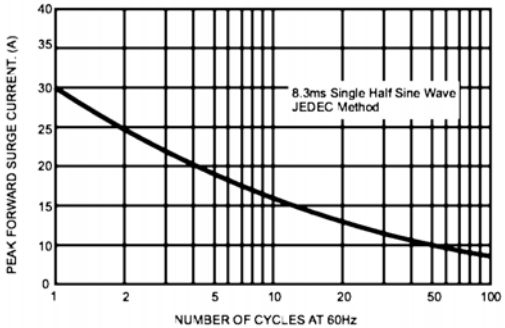


FIG.6- TYPICAL JUNCTION CAPACITANCE

