# HER151G thru HER158G

Glass Passivated High Efficient Rectifiers
Reverse Voltage 50 to 1000 Volts  Forward Current 1.5 Amperes

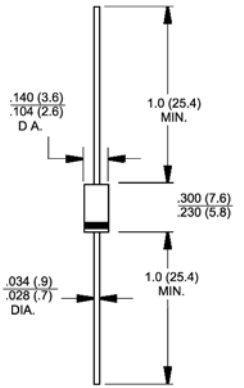
## Features

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

**DO-204AC (DO-15)**

## Mechanical Data

- Case: Molded plastic DO-204AC(DO-15)
- 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
- Mounting position: Any
- Weight: 0.014 ounce, 0.40 gram




**Dimensions in inches and (millimeters)**

## 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 151G | HER 152G | HER 153G | HER 154G | HER 155G | HER 156G | HER 157G | HER 158G | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| Maximum repetitive peak reverse voltage | $V_{RRM}$ | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS voltage | $V_{RMS}$ | 35 | 70 | 140 | 210 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC blocking voltage | $V_{DC}$ | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | Volts |
| Maximum average forward rectified current .375" (9.5mm) lead length @$T_A$=55°C | $I_{(AV)}$ | 1.5 | | | | | | | | Amps |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$ | 50.0 | | | | | | | | Amps |
| Maximum instantaneous forward voltage @ 1.5A | $V_F$ | 1.0 | | | | 1.3 | 1.7 | | | Volts |
| Maximum DC reverse current @ $T_A$=25°C<br>at rated DC blocking voltage @ $T_A$=125°C | $I_R$ | 5.0<br>150 | | | | | | | | uA<br>uA |
| Maximum reverse recovery time (Note 1) | $t_{rr}$ | 50 | | | | | 75 | | | nS |
| Typical junction capacitance (Note 2) | $C_J$ | 50 | | | | | 30 | | | pF |
| Operating junction temperature range | $T_J$ | -55 to +150 | | | | | | | | °C |
| Storage temperature range | $T_{STG}$ | -55 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.

## RATINGS AND CHARACTERISTIC CURVES

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

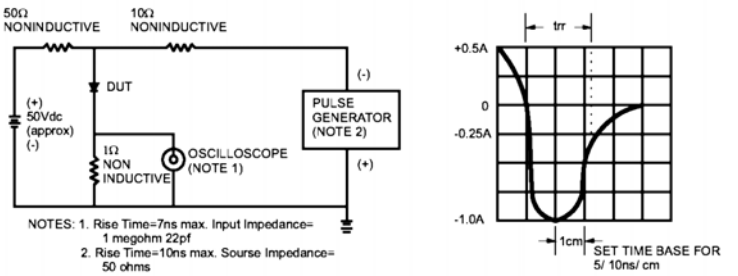



FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

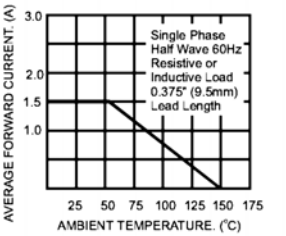



FIG.3- TYPICAL REVERSE CHARACTERISTICS

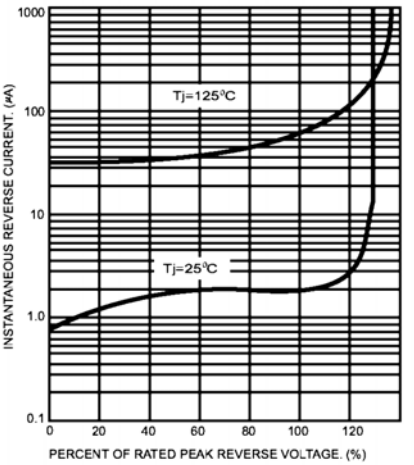



FIG.4- TYPICAL FORWARD CHARACTERISTICS

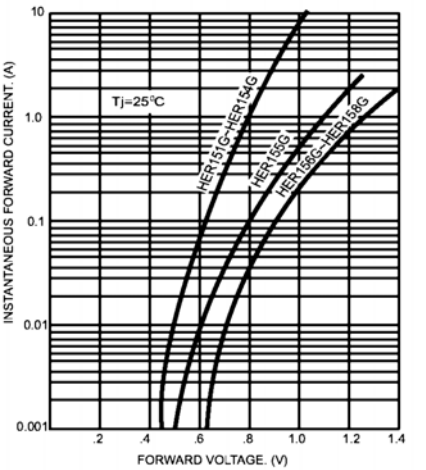
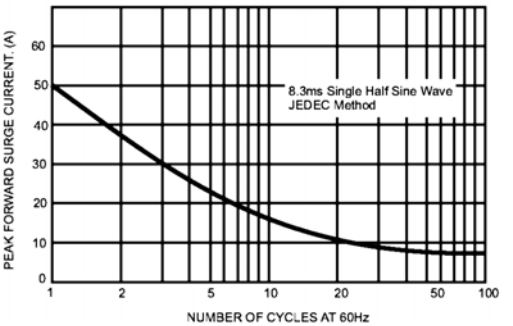



FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



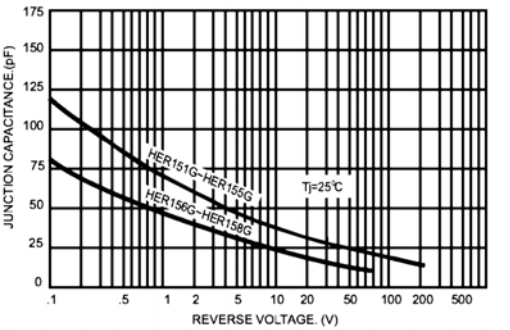


FIG.6- TYPICAL JUNCTION CAPACITANCE