# HER1601G THRU HER1608G

## 16.0 AMPS. GLASS PASSIVATED HIGH EFFICIENTRECTIFIERS

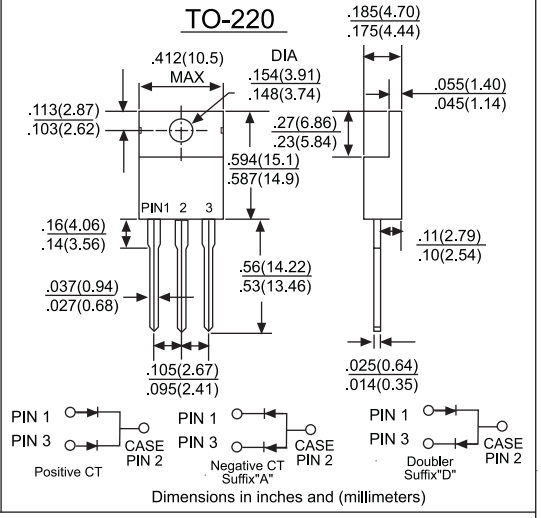
**Voltage Range**
**50 to 1000 Volts**
**Current**
**16.0 Amperes**

### Features

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

### Mechanical Data

- Cases:TO-220 molded plastic
- Epoxy:UL 94V-O rate flame retardant
- Lead:Axial leads,solderable per MIL-STD-202,Method 208 guaranteed
- Polarity:As marked
- High temperature soldering guaranteed: 250$^0$C/10 seconds/.16",(4.06mm) from case.
- Weight:2.24 grams




## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

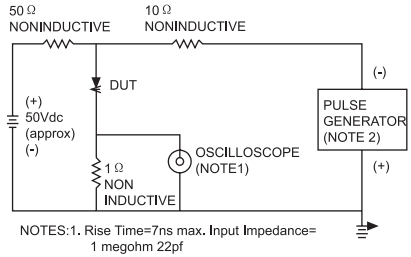
Rating at 25$^\circ$C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

| Type Number | | HER 1601G | HER 1602G | HER 1603G | HER 1604G | HER 1605G | HER 1606G | HER 1607G | HER 1608G | UNITS |
|---|---|---|---|---|---|---|---|---|---|---|
| Maximum Repetitive 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$^\circ$C | $I_{F(AV)}$ | 16.0 | | | | | | | | 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 @6.0A | $V_F$ | 1.0 | | | | 1.3 | 1.7 | | | V |
| Maximun DC Reverse Current @ $T_A$ = 25$^\circ$C<br>at Rated DC Blocking Voltage @ $T_A$ = 100$^\circ$C | $I_R$ | 10.0<br>400 | | | | | | | | uA<br>uA |
| Maximum Reverse Recovery Time (Note 1) | $T_{RR}$ | 50 | | | | | 80 | | | nS |
| Typical Junction Capacitance (Note 2) | $C_J$ | 80 | | | | | 50 | | | pF |
| Typical Thermal Resistance (Note 3) | $R_{\theta JC}$ | 3.0 | | | | | | | | $^\circ$C/W |
| Operating Temperature Range | $T_J$ | -55 to+150 | | | | | | | | $^\circ$C |
| Storage Temperature Range | $T_{STG}$ | -55 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.Thermal Resistance from Junction to Case per Leg Mounted on Heatsink.

# RATING AND CHARACTERISTIC CURVES
# HER1601G THRU HER1608G

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




NOTES:1. Rise Time=7ns max. Input Impedance=
1 megohm 22pf
2. Rise Time=10ns max. Sourse Impedance=
50 ohms

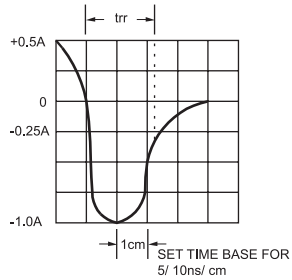



FIG.2-MAXIMUM FORWARD CURRENT DERATING CURVE

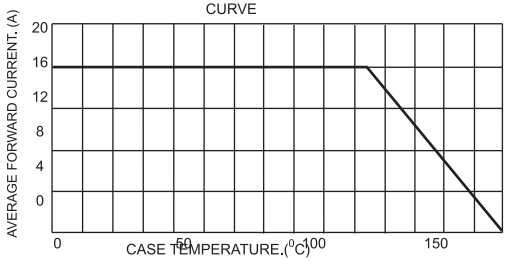



FIG.3-TYPICAL REVERSE CHARACTERISTICS PER LEG

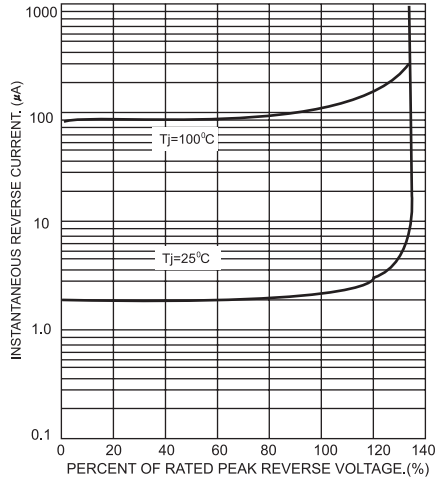



FIG.5-MAXIMUM NON-REPETITIVE SURGE CURRENT

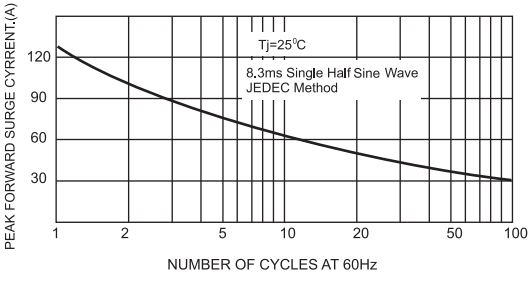



FIG.6-TYPICAL FORWARD CHARACTERISTICS PER LEG

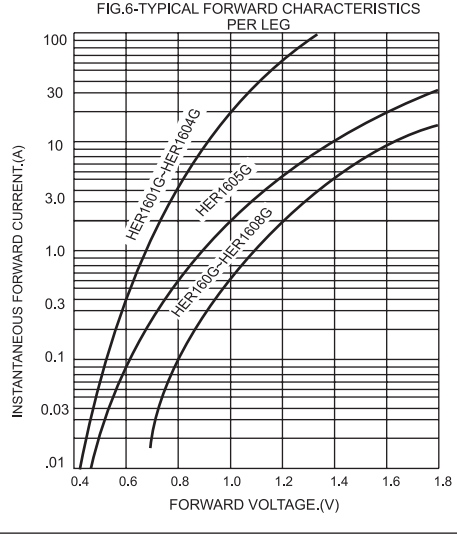



FIG.5-TYPICAL JUNCTION CAPACITANCE PER LEG