



HER1601G - HER1608G

16.0AMPS. Glass Passivated High Efficient Rectifiers

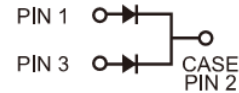
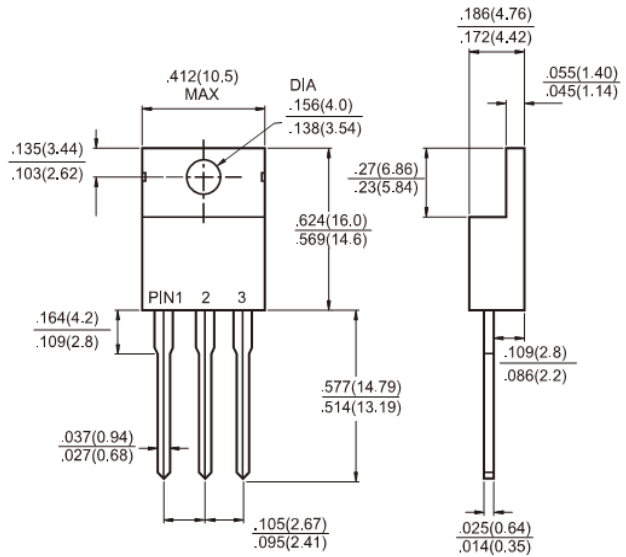
TO-220AB

Features

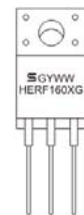
- ✧ Glass passivated chip junction
- ✧ High efficiency, Low VF
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability
- ✧ For use in low voltage, high frequency inverter, free wheeling, and polarity protection application
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode

Mechanical Data

- ✧ Cases: TO-220AB Molded plastic
- ✧ Epoxy: UL 94V-0 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)



Marking Diagram

- HER160XG = Specific Device Code
G = Green Compound
Y = Year
WW = Work Week

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 1601G | HER 1602G | HER 1603G | HER 1604G | HER 1605G | HER 1606G | HER 1607G | HER 1608G | Units |
|---|--------------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|
| 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 | I _{F(AV)} | 16 | | | | | | | | 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 (Note 1) @ 8 A | V _F | 1.0 | | | | 1.3 | 1.7 | | | V |
| Maximum DC Reverse Current @ T _A =25 °C at Rated DC Blocking Voltage @ T _A =125 °C | I _R | 10 400 | | | | | | | | uA |
| Maximum Reverse Recovery Time (Note 2) | T _{rr} | 50 | | | | | 80 | | | nS |
| Typical Junction Capacitance (Note 3) | C _j | 80 | | | | | 50 | | | pF |
| Typical Thermal Resistance | R _{θJC} | 1.5 | | | | | | | | °C/W |
| Operating Temperature Range | T _J | - 65 to + 150 | | | | | | | | °C |
| Storage Temperature Range | T _{STG} | - 65 to + 150 | | | | | | | | °C |

Note 1: Pulse Test with PW=300 usec, 1% Duty Cycle

Note 2: Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$

Note 3: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES (HER1601G THRU HER1608G)

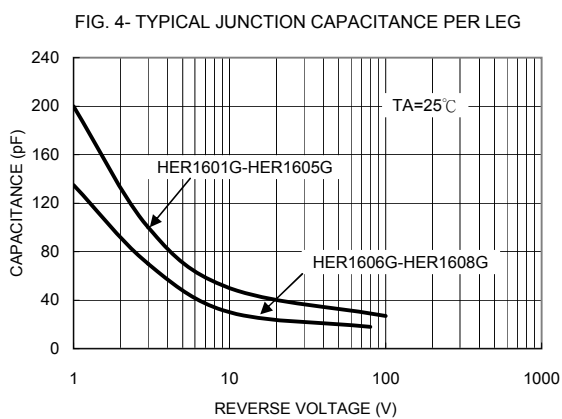
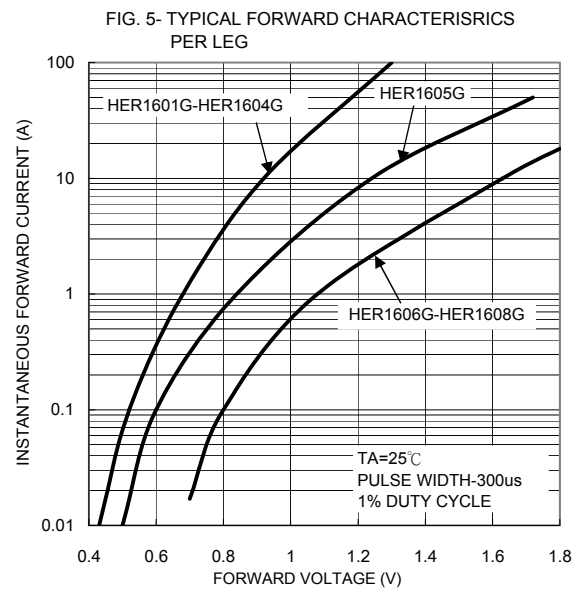
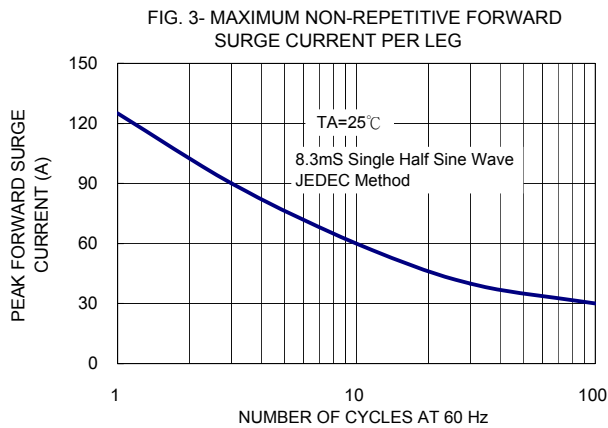
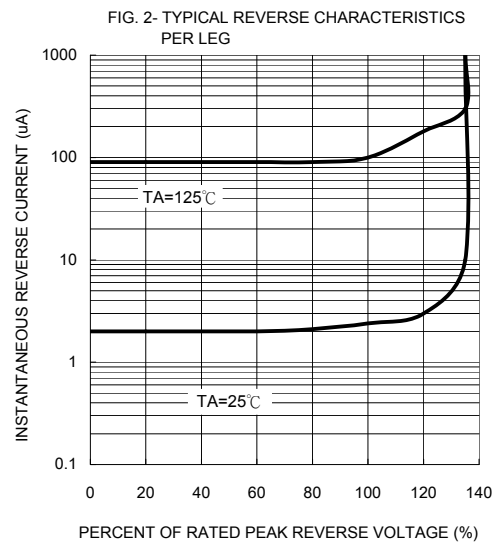
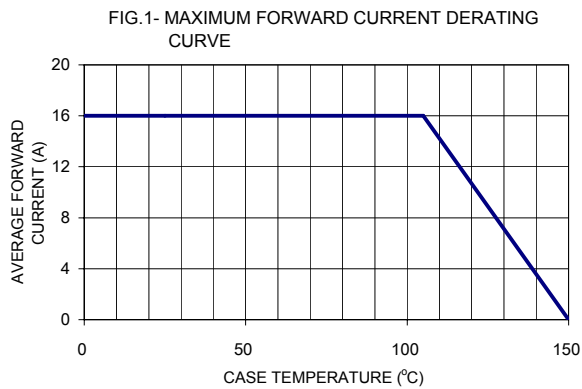


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

