



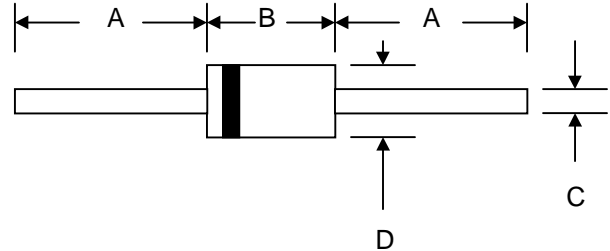
HER201G – HER208G



2.0A GLASS PASSIVATED ULTRAFAST DIODE

Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability



Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.40 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version,**

| DO-15 | | |
|----------------------|------|-------|
| Dim | Min | Max |
| A | 25.4 | — |
| B | 5.50 | 7.62 |
| C | 0.71 | 0.864 |
| D | 2.60 | 3.60 |
| All Dimensions in mm | | |

Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| Characteristic | Symbol | HER 201G | HER 202G | HER 203G | HER 204G | HER 205G | HER 206G | HER 207G | HER 208G | Unit | |
|--|---------------------------------|-------------|----------|----------|----------|----------|----------|----------|----------|------------------|---------------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V_{RRM} V_{RWM} V_R | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | V | |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 35 | 70 | 140 | 210 | 280 | 420 | 560 | 700 | V | |
| Average Rectified Output Current (Note 1) @ $T_A = 55^\circ\text{C}$ | I_O | 2.0 | | | | | | | | A | |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 60 | | | | | | | | A | |
| Forward Voltage @ $I_F = 2.0\text{A}$ | V_{FM} | 1.0 | | | 1.3 | | 1.7 | | | V | |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$ | I_{RM} | 5.0 | | | | | 100 | | | | μA |
| Reverse Recovery Time (Note 2) | t_{rr} | 50 | | | | | 75 | | | | nS |
| Typical Junction Capacitance (Note 3) | C_j | 60 | | | | | 40 | | | | pF |
| Operating Temperature Range | T_j | -65 to +150 | | | | | | | | $^\circ\text{C}$ | |
| Storage Temperature Range | T_{STG} | -65 to +150 | | | | | | | | $^\circ\text{C}$ | |

*Glass passivated forms are available upon request

- Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case
2. Measured with $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $IRR = 0.25\text{A}$. See figure 5.
3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

HER201G – HER208G

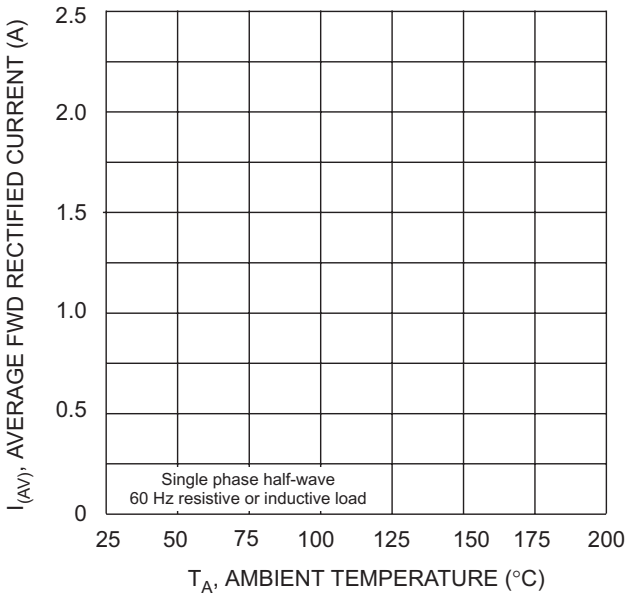


Fig. 1 Forward Current Derating Curve

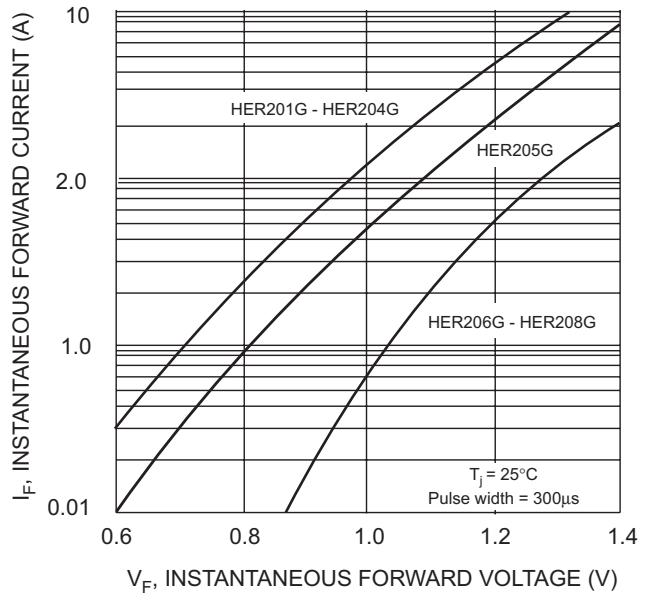


Fig. 2 Typical Forward Characteristics

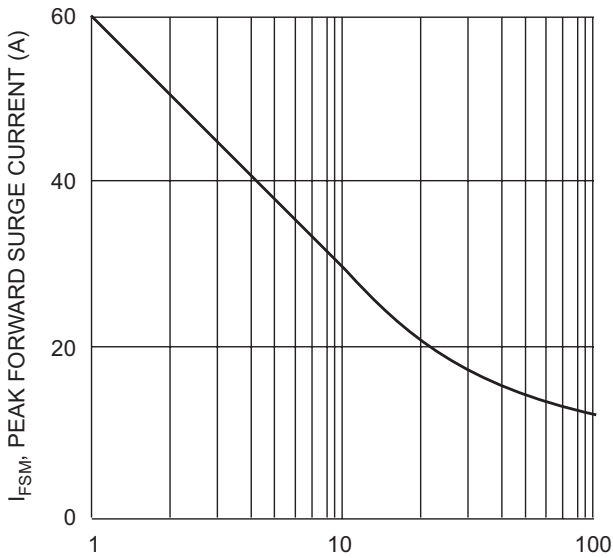


Fig. 3 Peak Forward Surge Current

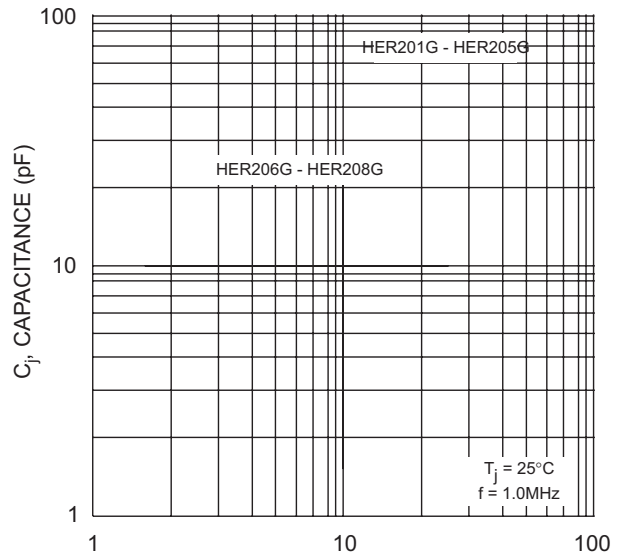
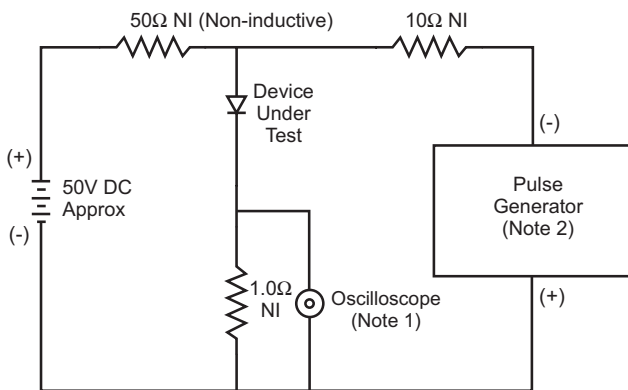
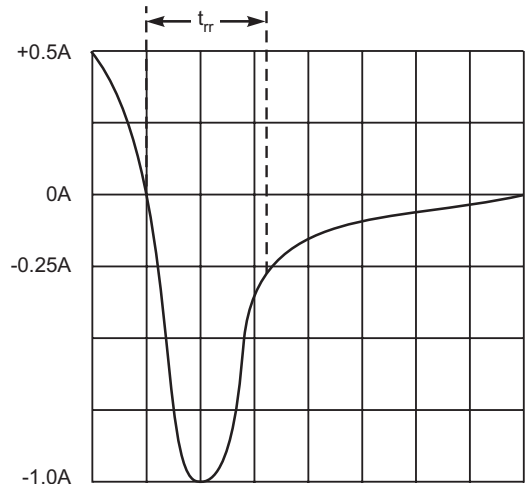


Fig. 4 Typical Junction Capacitance



- Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
 2. Rise Time = 10ns max. Input Impedance = 50Ω.



Set time base for 5/10ns/cm

Fig. 5 Reverse Recovery Time Characteristic and Test Circuit