

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

- ✧ Case: Molded plastic DO-15
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Lead: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: Color band denotes cathode
- ✧ High temperature soldering guaranteed: 260°C/10s / .375", (9.5mm) lead lengths at 5 lbs, (2.3kg) tension
- ✧ Mounting position: Any
- ✧ Weight: 0.40 grams

Ordering Information (example)



| Part No. | Package | Packing | INNER TAPE | Packing code | Green Compound Packing code |
|----------|---------|-----------------|------------|--------------|-----------------------------|
| HER201G | DO-15 | 1.5K / AMMO box | 52mm | A0 | A0G |

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 201G | HER 202G | HER 203G | HER 204G | HER 205G | HER 206G | HER 207G | HER 208G | 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 | $I_{F(AV)}$ | 2 | | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 60 | | | | | | | | A |
| Maximum Instantaneous Forward Voltage (Note 1) @ 2 A | V_F | 1.0 | | | 1.3 | | 1.7 | | | V |
| Maximum DC Reverse Current @ $T_A=25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125\text{ }^\circ\text{C}$ | I_R | 5 150 | | | | | | | | uA uA |
| Maximum Reverse Recovery Time (Note 2) | T_{rr} | 50 | | | | 75 | | | | nS |
| Typical Junction Capacitance (Note 3) | C_j | 35 | | | | 20 | | | | pF |
| Typical Thermal Resistance | $R_{\theta JA}$ | 60 | | | | | | | | $^\circ\text{C/W}$ |
| Operating Temperature Range | T_J | - 65 to + 150 | | | | | | | | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | - 65 to + 150 | | | | | | | | $^\circ\text{C}$ |

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

Note 2: Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A

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

RATINGS AND CHARACTERISTIC CURVES (HER201G THRU HER208G)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

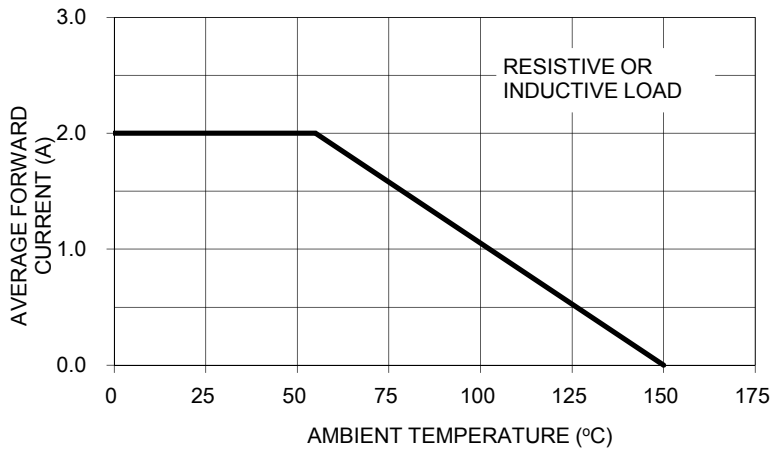


FIG. 2- TYPICAL REVERSE CHARACTERISTICS

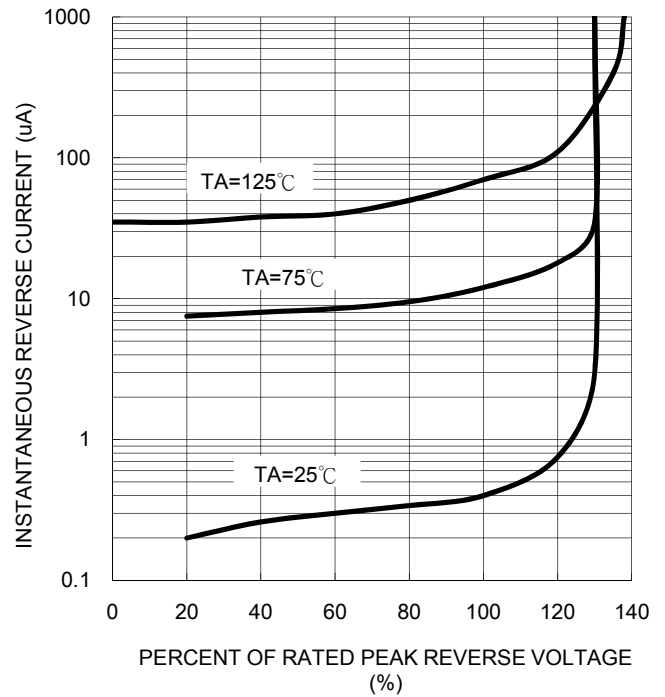


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

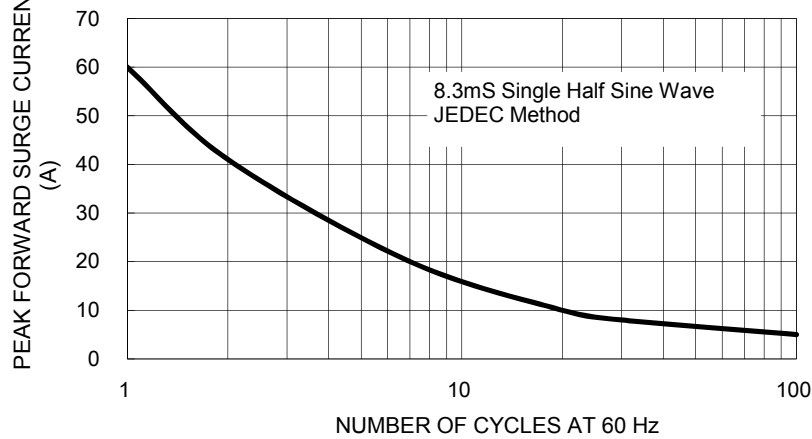


FIG. 5- TYPICAL FORWARD CHARACTERISTICS

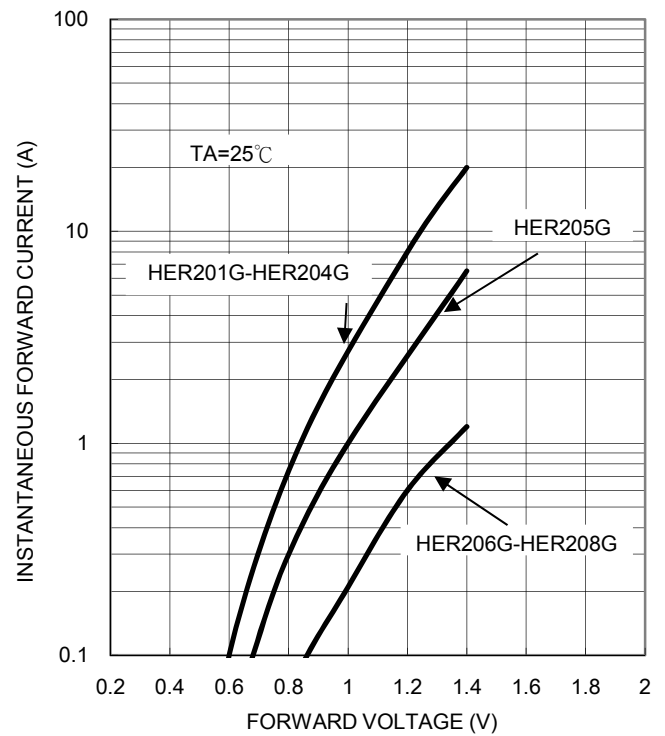


FIG. 4- TYPICAL JUNCTION CAPACITANCE

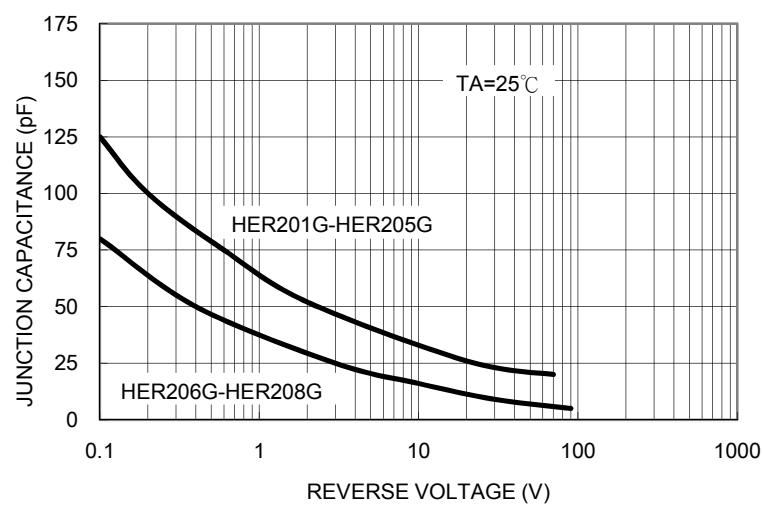
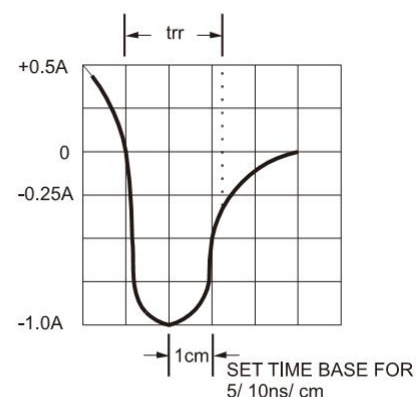
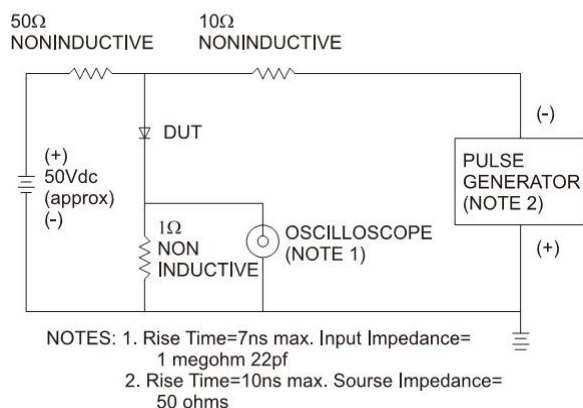


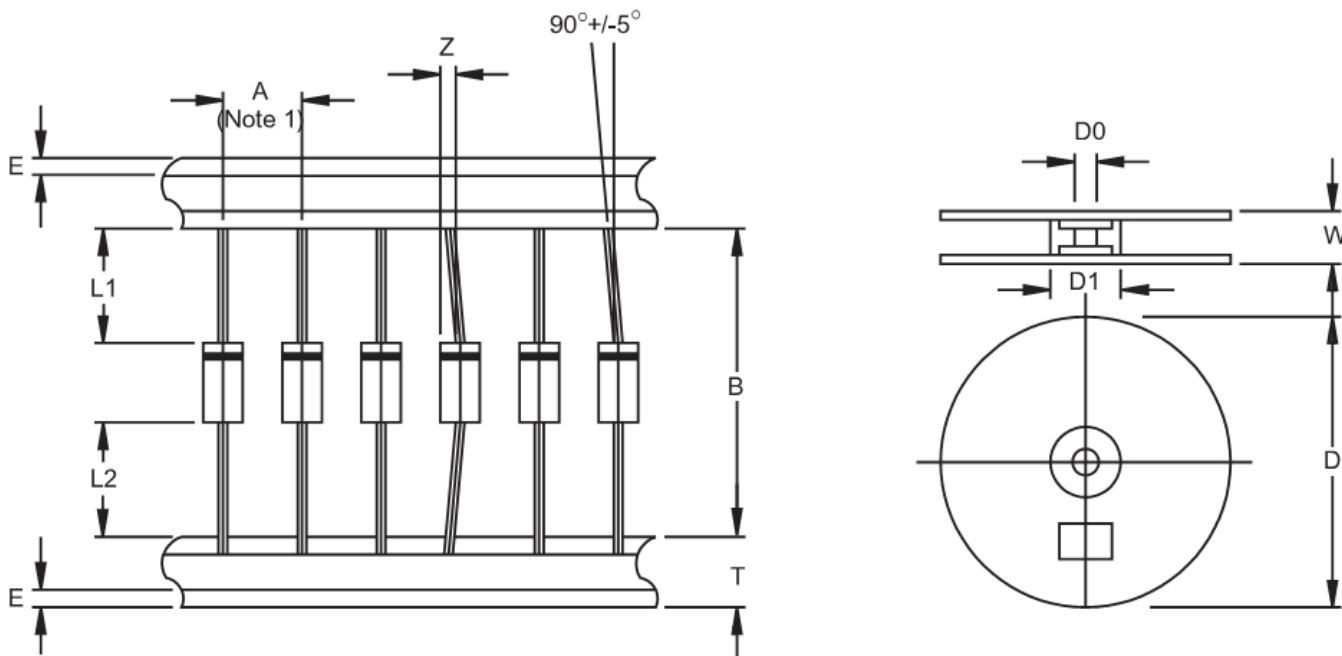
FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



Ordering information

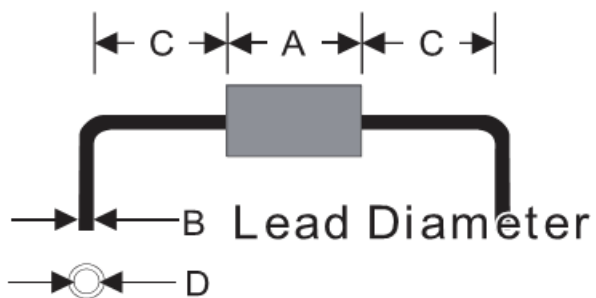
| Part No. | Package | Packing | INNER TAPE | Packing code | Green Compound Packing code |
|-------------------|---------|-------------------|------------|--------------|-----------------------------|
| HER20xG (Note) | DO-15 | 1.5K / AMMO box | 52mm | A0 | A0G |
| | DO-15 | 3.5K / 13" Reel | 52mm | R0 | R0G |
| | DO-15 | 1K / Bulk packing | | B0 | B0G |
| | DO-15 | 1K / Bulk packing | | X0 | X0G |

Note: "xx" is Device Code from "1" thru "8".

AXIAL LEAD TAPING SPECIFICATIONS


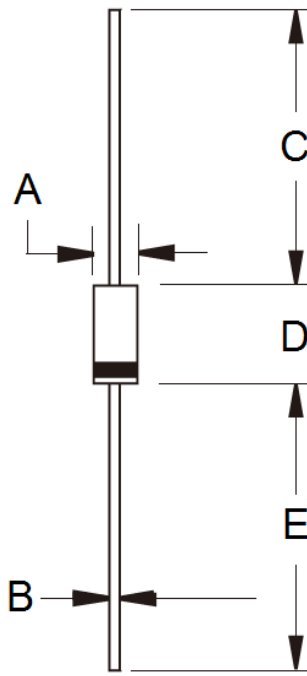
| Outline | A | B | Z | T | E | L1-L2 | D | D1 | D0 | W |
|---------|------|------|-----|------|-----|-------|-----|------|------|------|
| | ±0.5 | ±1.5 | MAX | ±0.4 | MAX | MAX | | ±0.3 | ±0.4 | ±1.0 |
| DO-15 | 5 | 52.4 | 1.2 | 6 | 0.8 | 1 | 330 | 85.7 | 16.6 | 76 |

Unit (mm)

Suggested Mounting Hole Rule


| Symbol | Unit(mm) |
|--------|----------|
| A | 6.4 |
| B | 0.8 |
| C | 3.0 |
| D | 1.2 |

Dimensions



| DIM. | Unit(mm) | | Unit(inch) | |
|------|----------|------|------------|-------|
| | Min | Max | Min | Max |
| A | 2.60 | 3.60 | 0.102 | 0.142 |
| B | 0.70 | 0.90 | 0.028 | 0.035 |
| C | 25.40 | - | 1.000 | - |
| D | 5.80 | 7.60 | 0.228 | 0.299 |
| E | 25.40 | - | 1.000 | - |

Marking Diagram



- P/N = Specific Device Code
- G = Green Compound
- YWW = Date Code