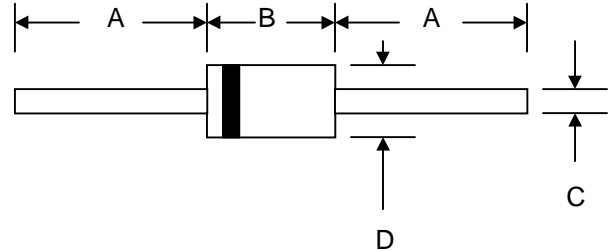


## Features

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



## Mechanical Data

- Case: DO-41, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.34 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**

| DO-41                |      |       |
|----------------------|------|-------|
| Dim                  | Min  | Max   |
| A                    | 25.4 | —     |
| B                    | 4.06 | 5.21  |
| C                    | 0.71 | 0.864 |
| D                    | 2.00 | 2.72  |
| 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 101G    | HER 102G | HER 103G | HER 104G | HER 105G | HER 106G | HER 107G | HER 108G | Unit             |
|--|--------------|-------------|----------|----------|----------|----------|----------|----------|----------|------------------|
| Peak Repetitive Reverse Voltage  | $V_{RRM}$    | 50          | 100      | 200      | 300      | 400      | 600      | 800      | 1000     | V                |
| Working Peak Reverse Voltage   | $V_{RWM}$    |             |          |          |          |          |          |          |          |                  |
| DC Blocking Voltage  | $V_R$        |             |          |          |          |          |          |          |          |                  |
| RMS Reverse Voltage  | $V_{R(RMS)}$ | 35          | 70       | 140      | 210      | 280      | 420      | 560      | 700      | V                |
| Average Rectified Output Current (Note 1)  | $I_O$        | 1.0         |          |          |          |          |          |          |          | A                |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$    | 30          |          |          |          |          |          |          |          | A                |
| Forward Voltage @ $I_F = 1.0A$   | $V_{FM}$     | 1.0         |          |          | 1.3      |          | 1.7      |          |          | V                |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$<br>At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$        | $I_{RM}$     | 5.0         |          |          |          | 100      |          |          |          | $\mu\text{A}$    |
| Reverse Recovery Time (Note 2)   | $t_{rr}$     | 50          |          |          |          | 75       |          |          |          | nS               |
| Typical Junction Capacitance (Note 3)  | $C_j$        | 20          |          |          |          | 15       |          |          |          | pF               |
| Operating Temperature Range  | $T_j$        | -65 to +150 |          |          |          |          |          |          |          | $^\circ\text{C}$ |
| Storage Temperature Range  | $T_{STG}$    | -65 to +150 |          |          |          |          |          |          |          | $^\circ\text{C}$ |

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

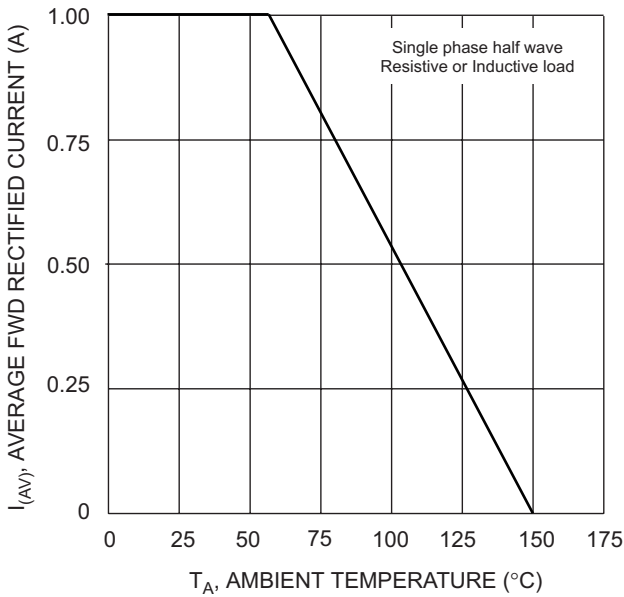


Fig. 1 Forward Current Derating Curve

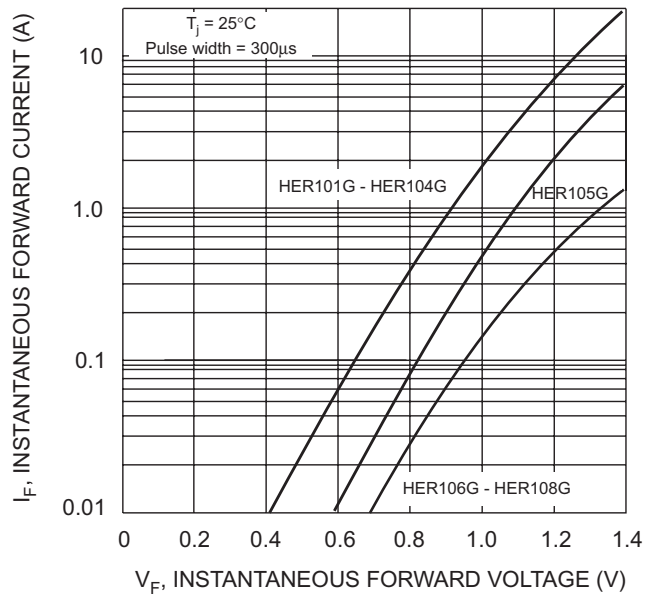


Fig. 2 Typical Forward Characteristics

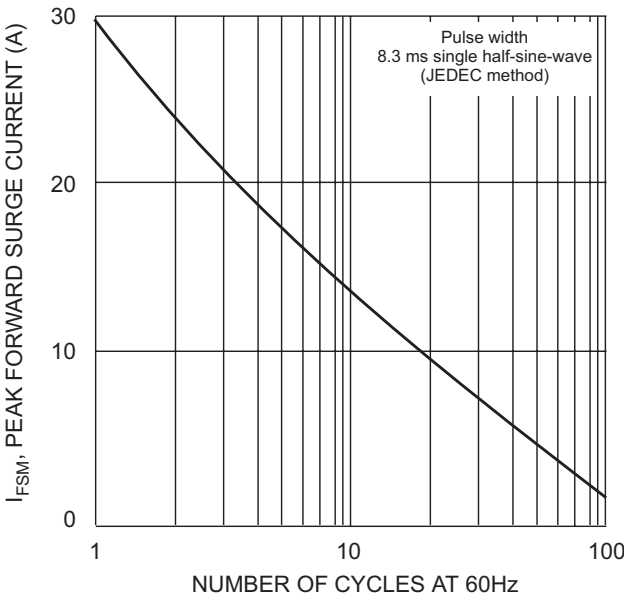


Fig. 3 Peak Forward Surge Current

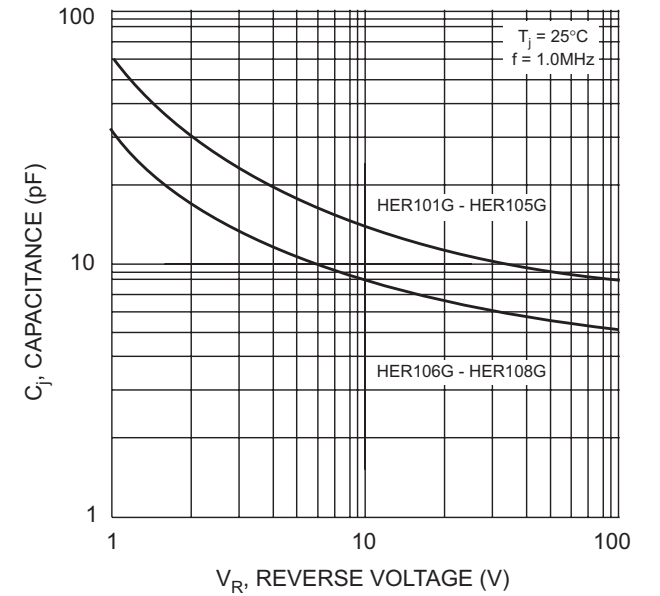
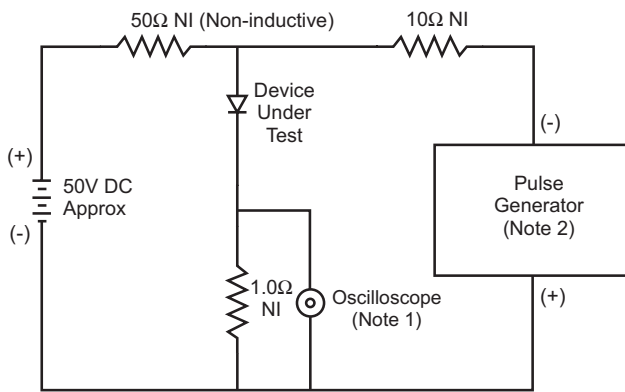
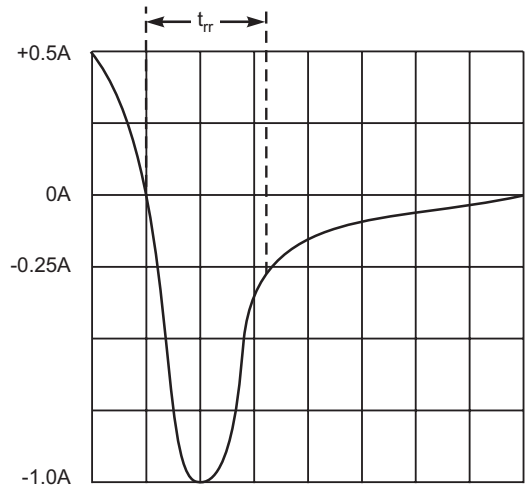


Fig. 4 Typical Junction Capacitance



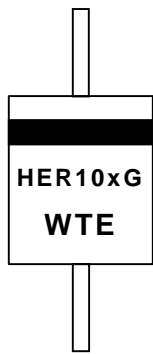
- Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
  2. Rise Time = 10ns max. Input Impedance = 50Ω.



Set time base for 5/10ns/cm

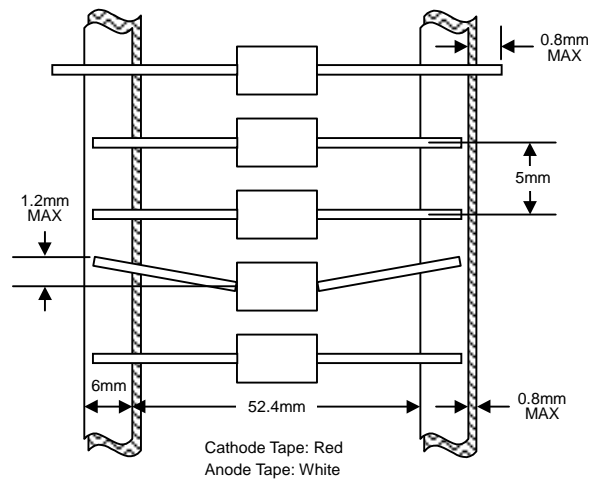
Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

## MARKING INFORMATION

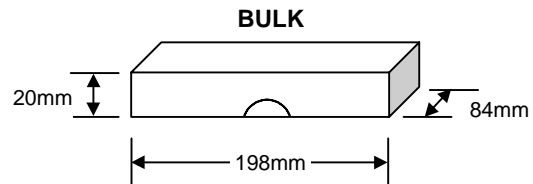
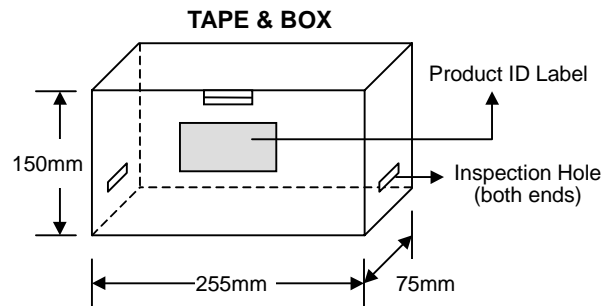
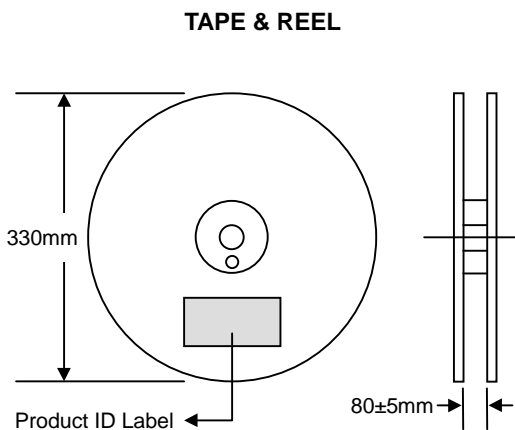


Cathode = Polarity Band  
 HER10xG = Device Number  
 x = 1, 2, 3, 4, 5, 6, 7 or 8  
 WTE = Manufacturer's Logo

## TAPING SPECIFICATIONS



## PACKAGING INFORMATION



| Packaging              | Reel Diameter / Box Size (mm) | Quantity (PCS) | Carton Size (mm) | Quantity (PCS) | Approx. Gross Weight (KG) |
|------------------------|-------------------------------|----------------|------------------|----------------|---------------------------|
| <b>TAPE &amp; REEL</b> | 330                           | 5,000          | 370 x 370 x 420  | 25,000         | 13.0                      |
| <b>TAPE &amp; BOX</b>  | 255 x 75 x 150                | 5,000          | 400 x 273 x 415  | 50,000         | 21.0                      |
| <b>BULK</b>            | 198 x 84 x 20                 | 1,000          | 459 x 214 x 256  | 50,000         | 19.5                      |

**Note:** 1. Paper reel, white or gray color. Core material: plastic or metal.  
 2. Components are packed in accordance with EIA standard RS-296-E.

## ORDERING INFORMATION

| Product No.       | Package Type | Shipping Quantity |
|-------------------|--------------|-------------------|
| HER101G-T3        | DO-41        | 5000/Tape & Reel  |
| <b>HER101G-TB</b> | DO-41        | 5000/Tape & Box   |
| HER101G           | DO-41        | 1000 Units/Box    |
| HER102G-T3        | DO-41        | 5000/Tape & Reel  |
| <b>HER102G-TB</b> | DO-41        | 5000/Tape & Box   |
| HER102G           | DO-41        | 1000 Units/Box    |
| HER103G-T3        | DO-41        | 5000/Tape & Reel  |
| <b>HER103G-TB</b> | DO-41        | 5000/Tape & Box   |
| HER103G           | DO-41        | 1000 Units/Box    |
| HER104G-T3        | DO-41        | 5000/Tape & Reel  |
| <b>HER104G-TB</b> | DO-41        | 5000/Tape & Box   |
| HER104G           | DO-41        | 1000 Units/Box    |
| HER105G-T3        | DO-41        | 5000/Tape & Reel  |
| <b>HER105G-TB</b> | DO-41        | 5000/Tape & Box   |
| HER105G           | DO-41        | 1000 Units/Box    |
| HER106G-T3        | DO-41        | 5000/Tape & Reel  |
| <b>HER106G-TB</b> | DO-41        | 5000/Tape & Box   |
| HER106G           | DO-41        | 1000 Units/Box    |
| HER107G-T3        | DO-41        | 5000/Tape & Reel  |
| <b>HER107G-TB</b> | DO-41        | 5000/Tape & Box   |
| HER107G           | DO-41        | 1000 Units/Box    |
| HER108G-T3        | DO-41        | 5000/Tape & Reel  |
| <b>HER108G-TB</b> | DO-41        | 5000/Tape & Box   |
| HER108G           | DO-41        | 1000 Units/Box    |

1. Products listed in **bold** are WTE **Preferred** devices.
2. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
3. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, HER101G-TB-LF.**

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**WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT.** WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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*We power your everyday.*