

### Features

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability



### Mechanical Data

- Case: DO-15, 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, Add "-LF" Suffix to Part Number, See Page 4**

| 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 201     | HER 202 | HER 203 | HER 204 | HER 205 | HER 206 | HER 207 | HER 208 | 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)                                                                          | $I_O$        | 2.0         |         |         |         |         |         |         |         | A                |    |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$    | 60          |         |         |         |         |         |         |         | A                |    |
| Forward Voltage @ $I_F = 2.0A$                                                                                     | $V_{FM}$     | 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)                                                                              | $C_j$        | 60          |         |         |         |         | 40      |         |         |                  | pF |
| Operating Temperature Range                                                                                        | $T_j$        | -65 to +125 |         |         |         |         |         |         |         | $^\circ\text{C}$ |    |
| 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.

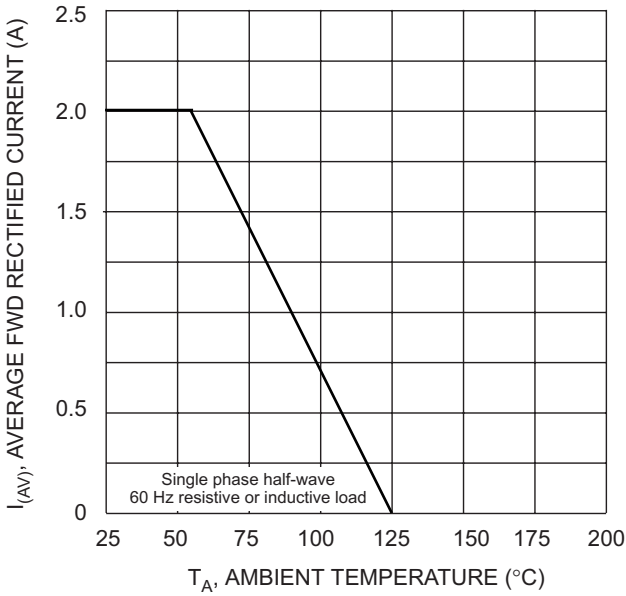


Fig. 1 Forward Current Derating Curve

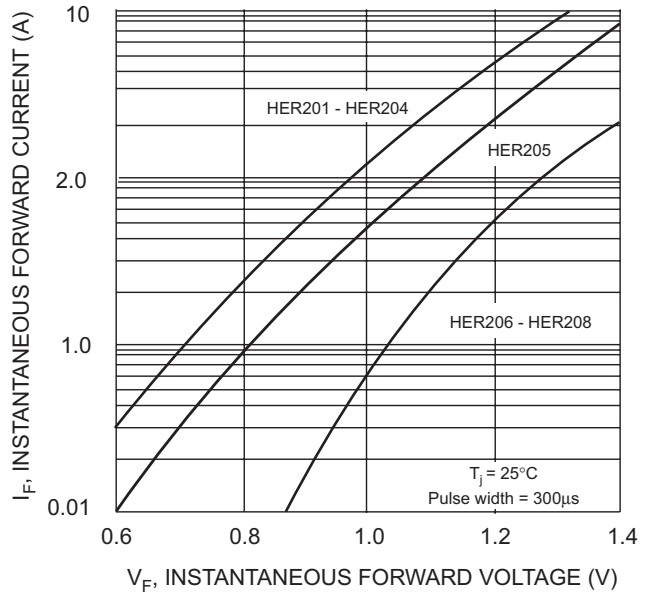


Fig. 2 Typical Forward Characteristics

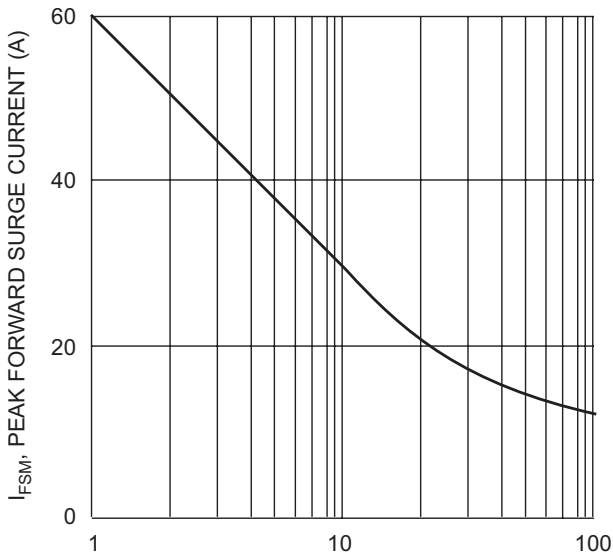


Fig. 3 Peak Forward Surge Current

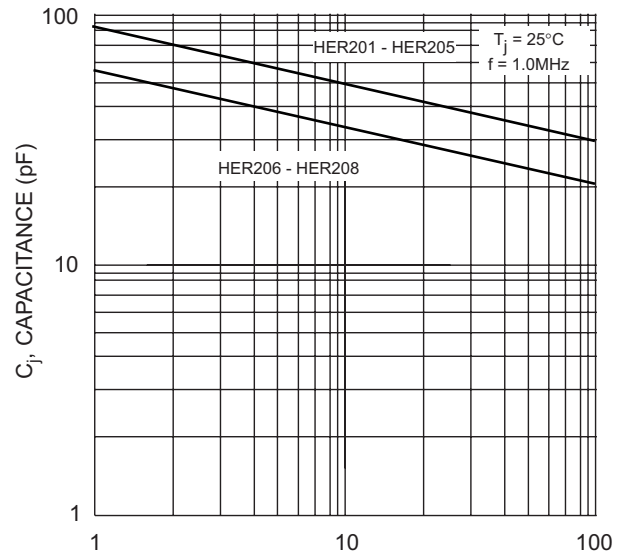
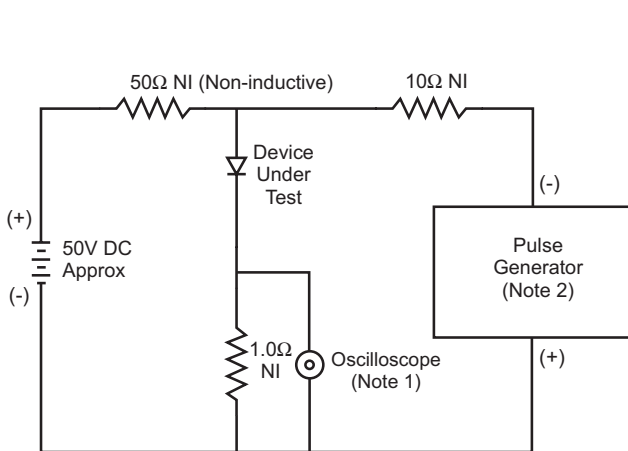
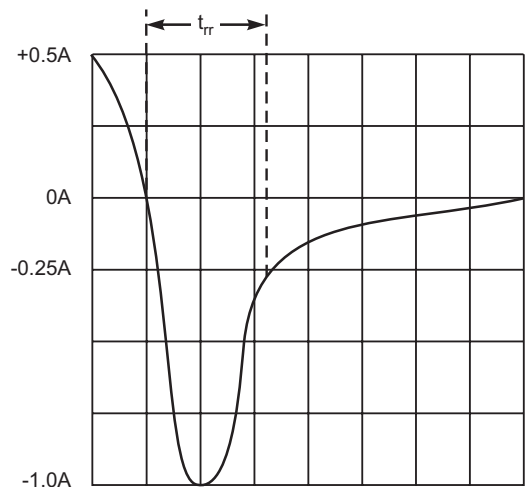


Fig. 4 Typical Junction Capacitance



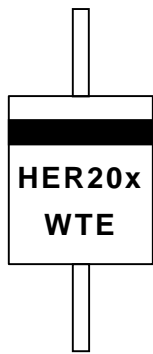
- Notes:  
 1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.  
 2. Rise Time = 10ns max. Input Impedance = 50Ω.



Set time base for 5/10ns/cm

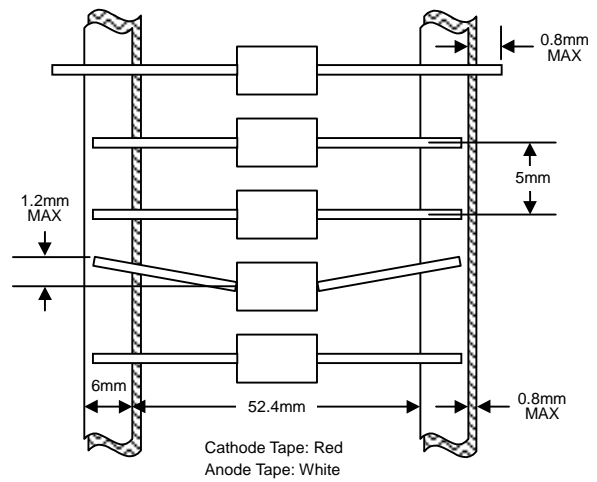
Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

## MARKING INFORMATION

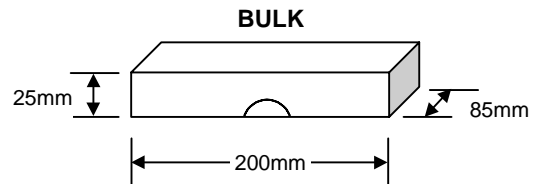
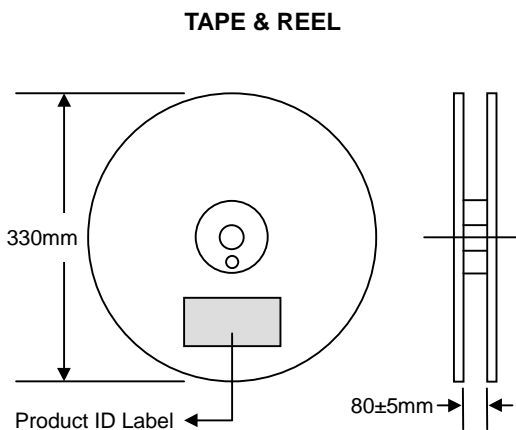


Cathode = Polarity Band  
 HER20x = Device Number  
 x = 1, 2, 3, 4, 5, 6, 7 or 8  
 WTE = Manufacturer's Logo

## 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                           | 4,000          | 370 x 370 x 420  | 20,000         | 12.0                      |
| <b>TAPE &amp; BOX</b>  | 255 x 75 x 150                | 3,000          | 400 x 273 x 415  | 30,000         | 15.0                      |
| <b>BULK</b>            | 200 x 85 x 25                 | 1,000          | 459 x 214 x 256  | 40,000         | 17.5                      |

**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 |
|------------------|--------------|-------------------|
| HER201-T3        | DO-15        | 4000/Tape & Reel  |
| <b>HER201-TB</b> | DO-15        | 3000/Tape & Box   |
| HER201           | DO-15        | 1000 Units/Box    |
| HER202-T3        | DO-15        | 4000/Tape & Reel  |
| <b>HER202-TB</b> | DO-15        | 3000/Tape & Box   |
| HER202           | DO-15        | 1000 Units/Box    |
| HER203-T3        | DO-15        | 4000/Tape & Reel  |
| <b>HER203-TB</b> | DO-15        | 3000/Tape & Box   |
| HER203           | DO-15        | 1000 Units/Box    |
| HER204-T3        | DO-15        | 4000/Tape & Reel  |
| <b>HER204-TB</b> | DO-15        | 3000/Tape & Box   |
| HER204           | DO-15        | 1000 Units/Box    |
| HER205-T3        | DO-15        | 4000/Tape & Reel  |
| <b>HER205-TB</b> | DO-15        | 3000/Tape & Box   |
| HER205           | DO-15        | 1000 Units/Box    |
| HER206-T3        | DO-15        | 4000/Tape & Reel  |
| <b>HER206-TB</b> | DO-15        | 3000/Tape & Box   |
| HER206           | DO-15        | 1000 Units/Box    |
| HER207-T3        | DO-15        | 4000/Tape & Reel  |
| <b>HER207-TB</b> | DO-15        | 3000/Tape & Box   |
| HER207           | DO-15        | 1000 Units/Box    |
| HER208-T3        | DO-15        | 4000/Tape & Reel  |
| <b>HER208-TB</b> | DO-15        | 3000/Tape & Box   |
| HER208           | DO-15        | 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, HER201-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.*