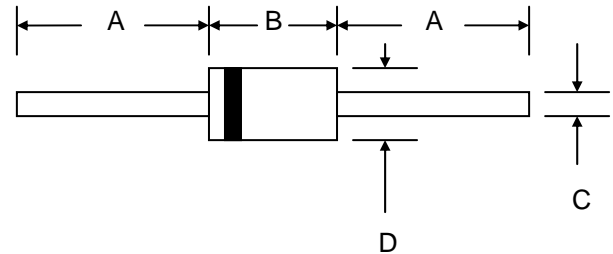


Features

- Diffused Junction
- Low Forward Voltage Drop
- High Surge Current Capability
- High Reliability
- Ideally Suited for Use in High Frequency SMPS, Inverters and As Free Wheeling Diodes



Mechanical Data

- Case: DO-201AD, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.2 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 4**

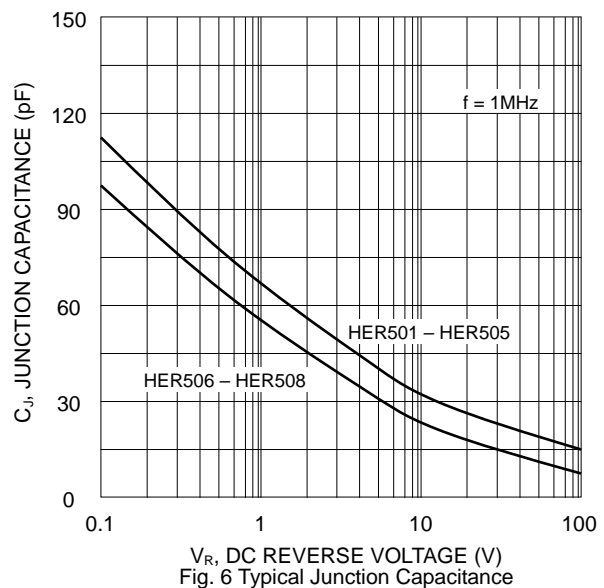
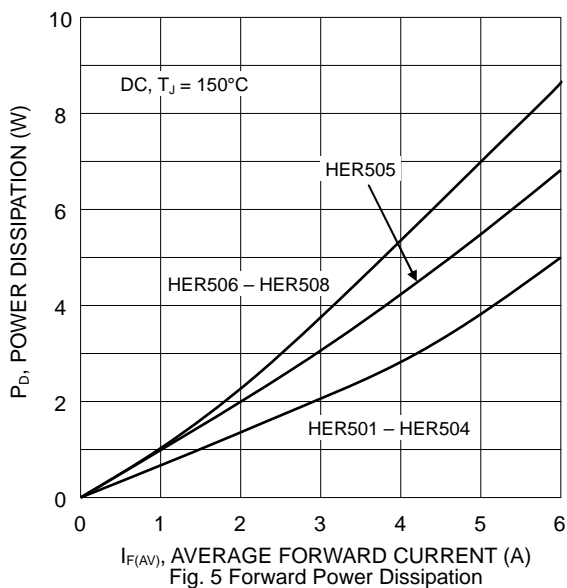
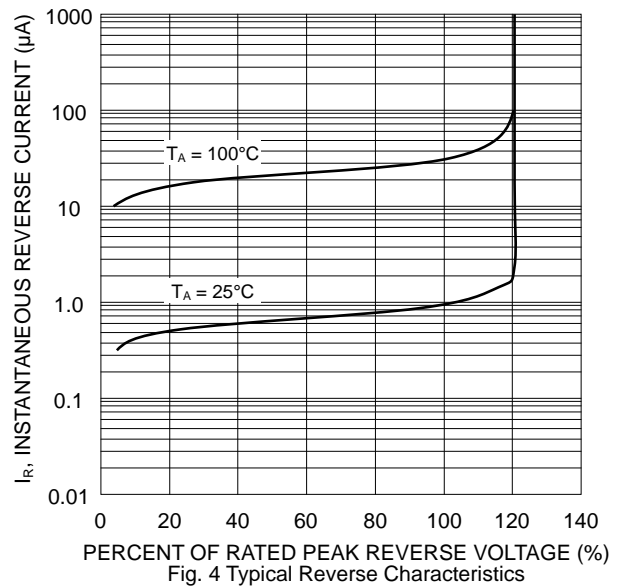
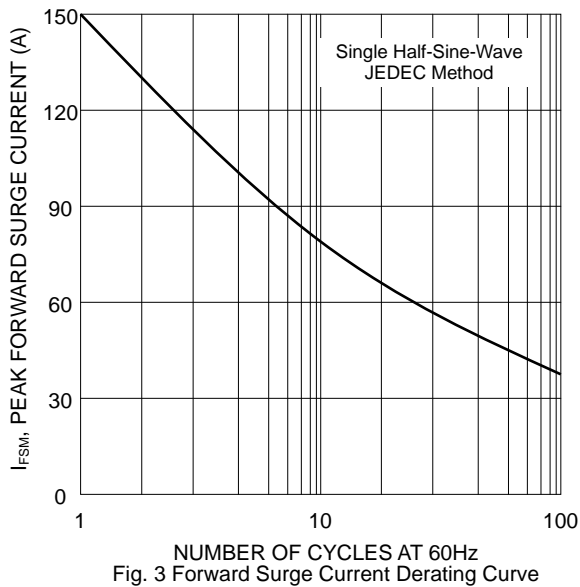
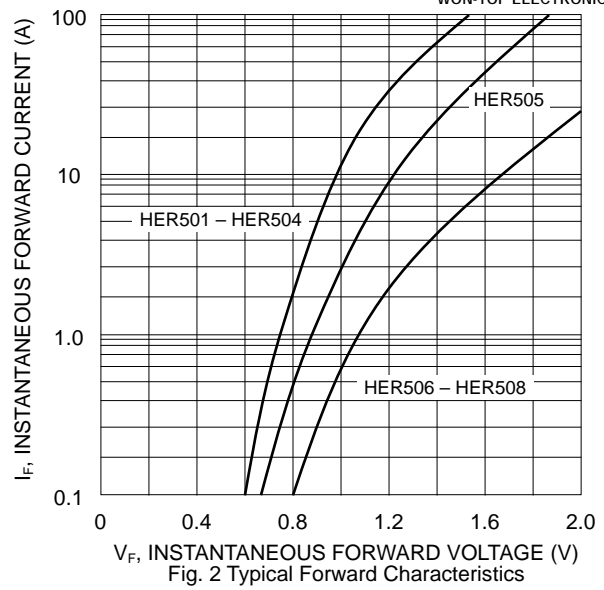
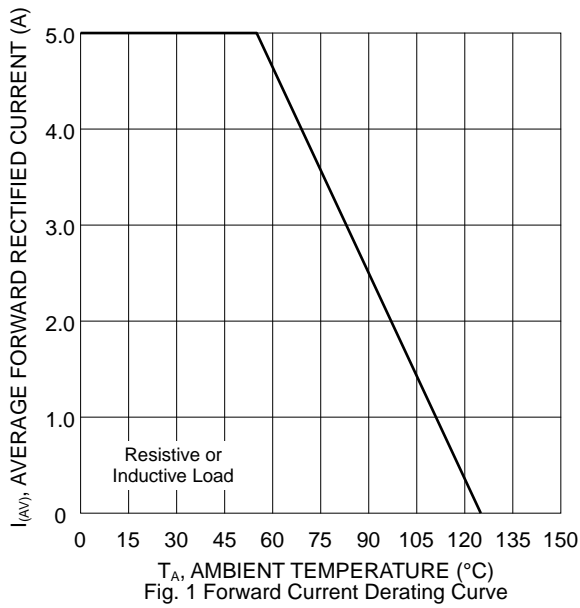
| DO-201AD | | |
|----------------------|------|------|
| Dim | Min | Max |
| A | 25.4 | — |
| B | 7.20 | 9.50 |
| C | 1.20 | 1.30 |
| D | 4.80 | 5.30 |
| All Dimensions in mm | | |

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

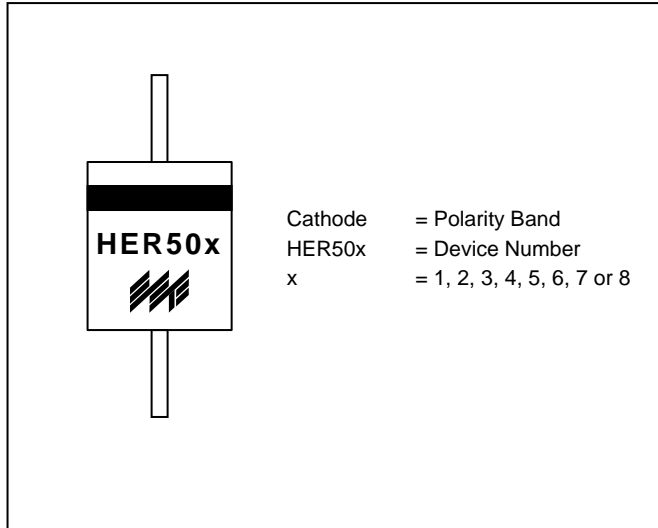
Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| Characteristic | Symbol | HER 501 | HER 502 | HER 503 | HER 504 | HER 505 | HER 506 | HER 507 | HER 508 | 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) @ $T_A = 55^\circ\text{C}$ | I_O | 5.0 | | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) | I_{FSM} | 150 | | | | | | | | A |
| Forward Voltage @ $I_F = 5.0\text{A}$ | 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} | 10 | | | | 100 | | | | μA |
| Reverse Recovery Time (Note 2) | t_r | 50 | | | | 75 | | | | nS |
| Typical Junction Capacitance (Note 3) | C_J | 45 | | | | 36 | | | | pF |
| Typical Thermal Resistance Junction to Ambient (Note 1) | R_{JA} | 20 | | | | | | | | $^\circ\text{C}/\text{W}$ |
| Typical Thermal Resistance Junction to Lead (Note 1) | R_{JL} | 5.0 | | | | | | | | |
| Operating Temperature Range | T_J | -65 to +125 | | | | | | | | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -65 to +150 | | | | | | | | $^\circ\text{C}$ |

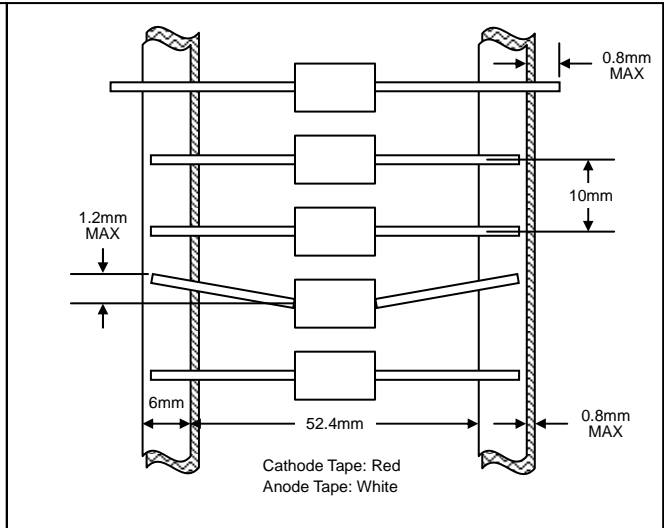
Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.
2. Measured with $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$.
3. Measured at 1.0 MHz and Applied Reverse Voltage of 4.0V D.C.



MARKING INFORMATION

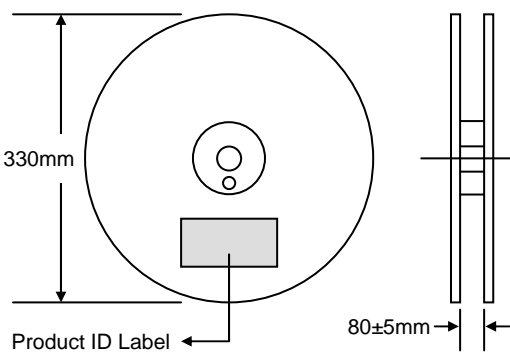


TAPING SPECIFICATIONS



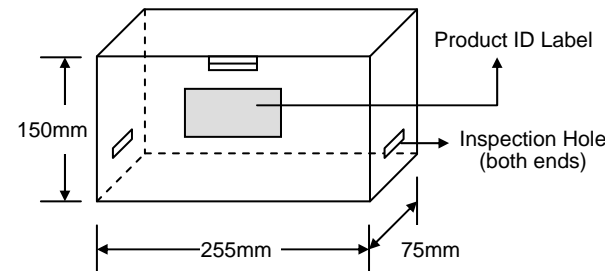
PACKAGING INFORMATION

TAPE & REEL



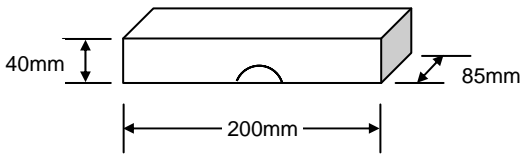
330mm
 Product ID Label
 80±5mm

TAPE & BOX



150mm
 Product ID Label
 Inspection Hole (both ends)
 255mm
 75mm

BULK



40mm
 200mm
 85mm


| Packaging | Reel Diameter / Box Size (mm) | Quantity (PCS) | Carton Size (mm) | Quantity (PCS) | Approx. Gross Weight (KG) |
|------------------------|-------------------------------|----------------|------------------|----------------|---------------------------|
| TAPE & REEL | 330 | 1,200 | 370 x 370 x 420 | 6,000 | 10.0 |
| TAPE & BOX | 255 x 75 x 150 | 1,200 | 400 x 273 x 415 | 12,000 | 17.0 |
| BULK | 200 x 85 x 40 | 500 | 459 x 214 x 256 | 12,500 | 16.0 |

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 |
|------------------|--------------|-------------------|
| HER50x-T3 | DO-201AD | 1200/Tape & Reel |
| HER50x-TB | DO-201AD | 1200/Tape & Box |
| HER50x | DO-201AD | 500 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, HER501-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.