

# HER151 – HER158

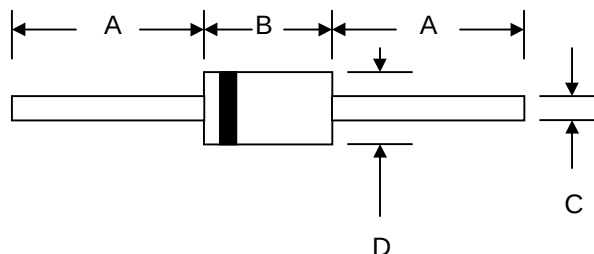
## 1.5A HIGH EFFICIENCY RECTIFIER

### Features

- Diffused Junction
- 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



| 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 |      |       |

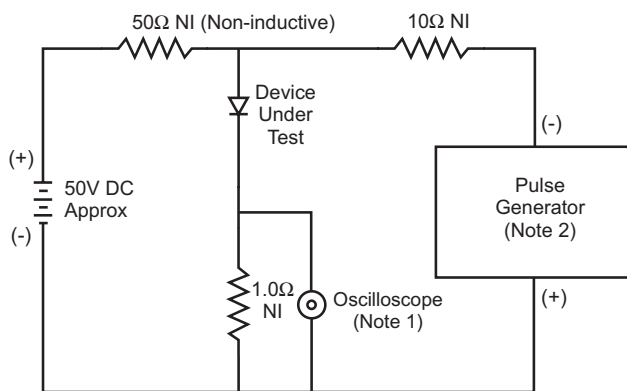
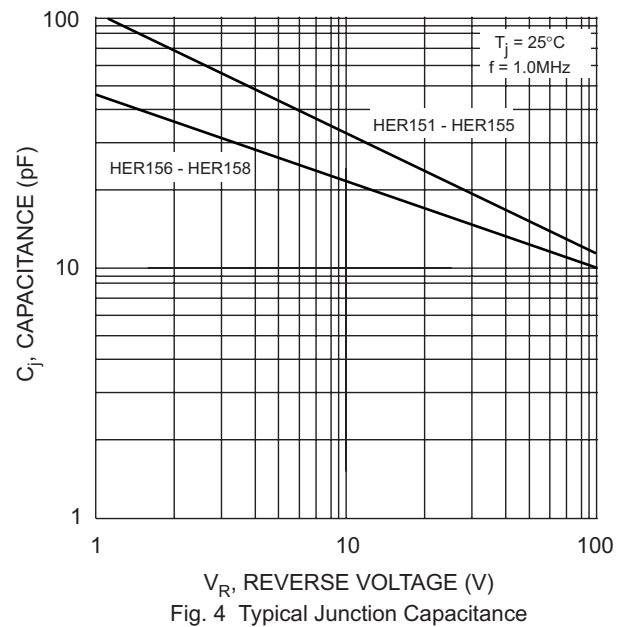
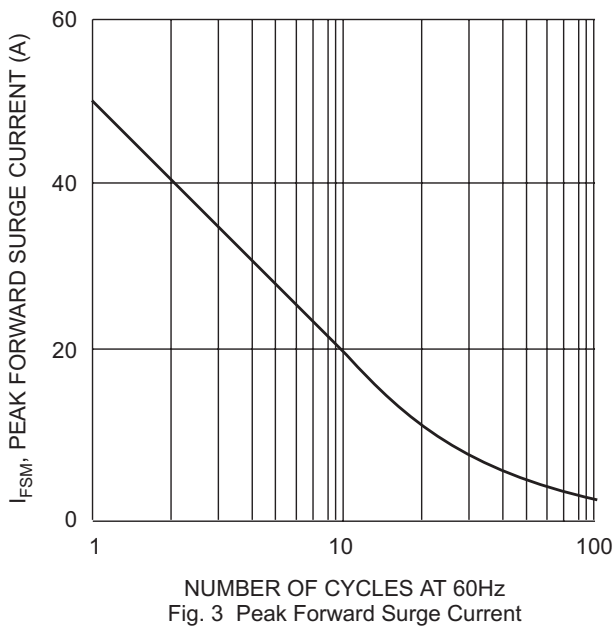
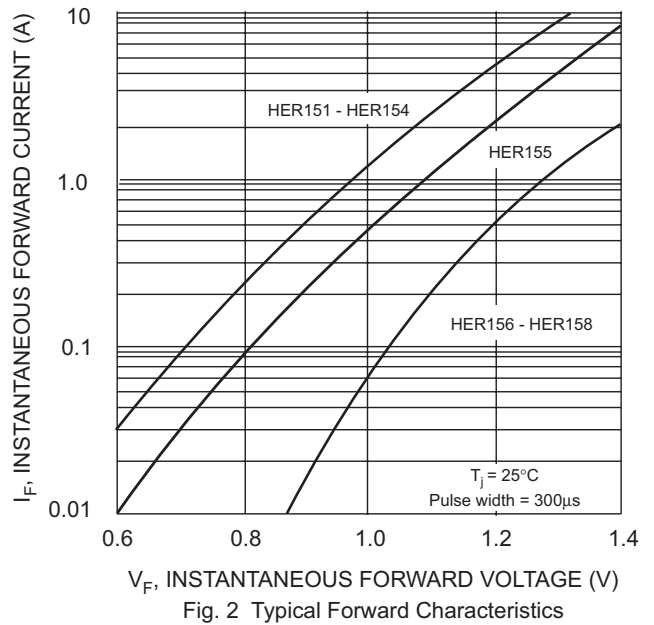
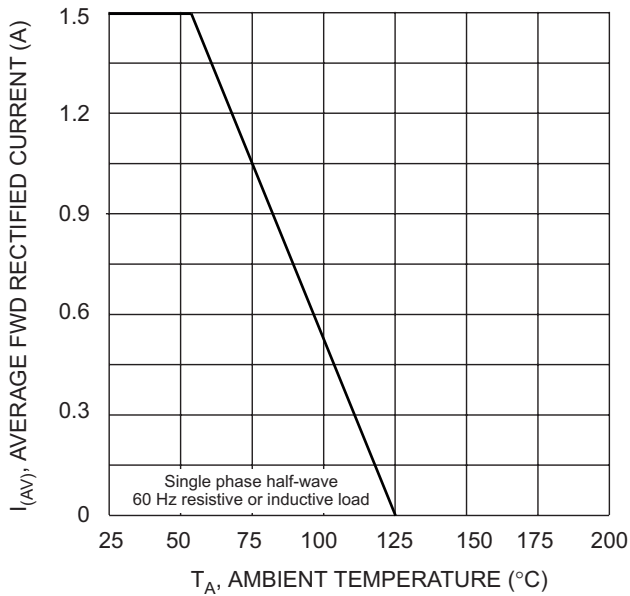
### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

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

| Characteristic                                                                                                        | Symbol                                                 | HER 151     | HER 152 | HER 153 | HER 154 | HER 155 | HER 156 | HER 157 | HER 158 | Unit |
|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------|---------|---------|---------|---------|---------|---------|---------|------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                                | V <sub>RRM</sub><br>V <sub>RWM</sub><br>V <sub>R</sub> | 50          | 100     | 200     | 300     | 400     | 600     | 800     | 1000    | V    |
| RMS Reverse Voltage                                                                                                   | V <sub>R(RMS)</sub>                                    | 35          | 70      | 140     | 210     | 280     | 420     | 560     | 700     | V    |
| Average Rectified Output Current<br>(Note 1) @T <sub>A</sub> = 55°C                                                   | I <sub>O</sub>                                         | 1.5         |         |         |         |         |         |         |         | A    |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on<br>rated load (JEDEC Method) | I <sub>FSM</sub>                                       | 50          |         |         |         |         |         |         |         | A    |
| Forward Voltage @I <sub>F</sub> = 1.5A                                                                                | V <sub>FM</sub>                                        | 1.0         |         |         |         | 1.3     | 1.7     |         |         | V    |
| Peak Reverse Current @T <sub>A</sub> = 25°C<br>At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C                   | I <sub>RM</sub>                                        | 5.0<br>100  |         |         |         |         |         |         |         | μA   |
| Reverse Recovery Time (Note 2)                                                                                        | t <sub>rr</sub>                                        | 50          |         |         |         |         | 75      |         |         | nS   |
| Typical Junction Capacitance (Note 3)                                                                                 | C <sub>j</sub>                                         | 50          |         |         |         |         | 30      |         |         | pF   |
| Operating Temperature Range                                                                                           | T <sub>j</sub>                                         | -65 to +125 |         |         |         |         |         |         |         | °C   |
| Storage Temperature Range                                                                                             | T <sub>STG</sub>                                       | -65 to +150 |         |         |         |         |         |         |         | °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<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, IRR = 0.25A. See figure 5.  
 3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.



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

