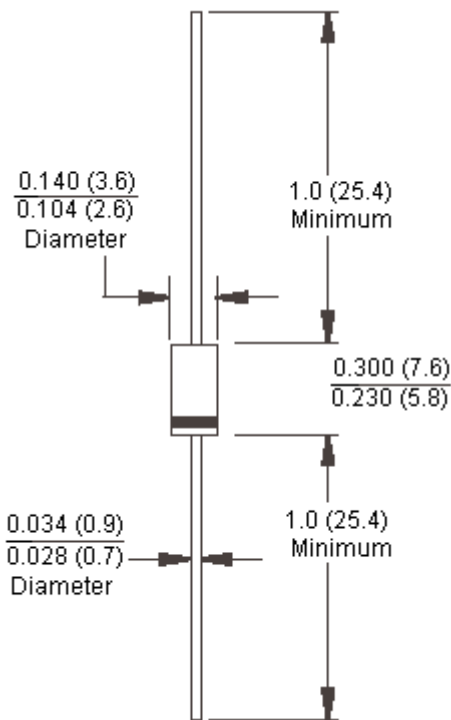




Features:

- High efficiency, low V_F .
- High current capability.
- High reliability.
- High surge current capability.
- For use in low voltage, high frequency inverter, free wheeling, and polarity protection application.

DO-15



Dimensions : Inches (Millimetres)

Mechanical Data:

| | |
|---------------------------------------|--|
| Cases | : Moulded plastic DO-15. |
| Lead | : Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed. |
| Polarity | : Colour band denotes cathode end. |
| High temperature soldering guaranteed | : 260°C/10 seconds/0.375 inch, (9.5mm) lead lengths at 5lbs., (2.3kg) tension. |
| Mounting position | : Any. |
| Weight | : 0.40 grams. |

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| Type Number | Symbol | HER152 | HER155 | HER157 | Units |
|--|-----------------|-------------|--------|--------|--------------------------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 100 | 400 | 800 | V |
| Maximum RMS Voltage | V_{RMS} | 70 | 280 | 560 | |
| Maximum DC Blocking Voltage | V_{DC} | 100 | 400 | 800 | |
| Maximum Average Forward Rectified Current 0.375 inch (9.5mm) Lead Length at $T_A = 55^\circ\text{C}$ | $I_{(AV)}$ | 1.5 | | | A |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 50 | | | |
| Maximum Instantaneous Forward Voltage at 1.5A | V_F | 1.0 | 1.3 | 1.7 | V |
| Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 125^\circ\text{C}$ | I_R | 5.0 150 | | | μA μA |
| Maximum Reverse Recovery Time (Note 1) | T_{rr} | 50 | | 75 | nS |
| Typical Junction Capacitance (Note 2) | C_j | 50 | | 35 | 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} | | | | |

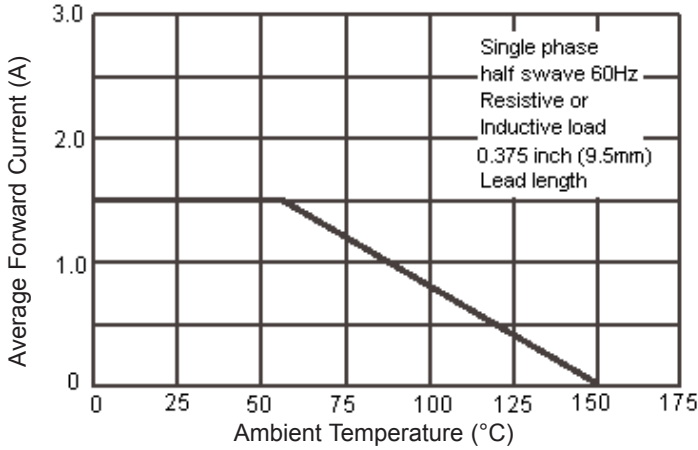
Note: 1. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$.

2. Measured at 1MHz and Applied Reverse Voltage of 4.0V dc.

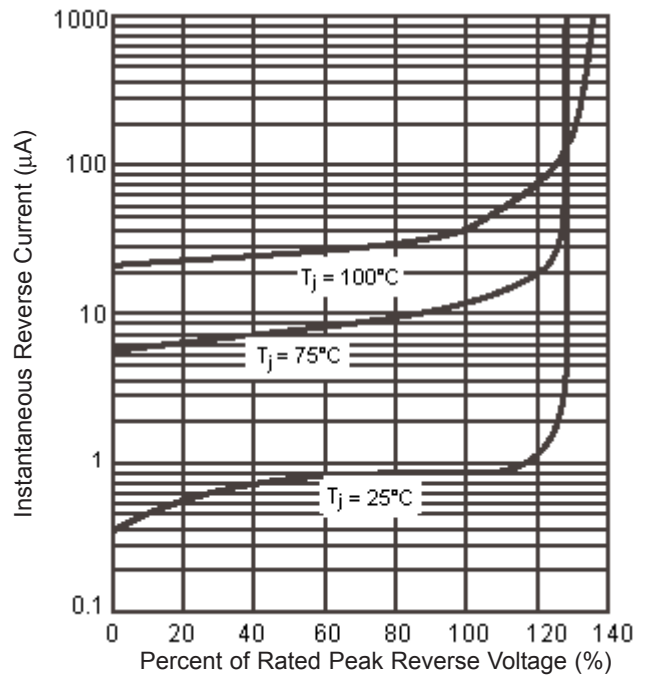
3. Mount on Cu-Pad Size 10mm x 10mm on PCB.

Ratings and Characteristic Curves (HER152, HER155, HER157)

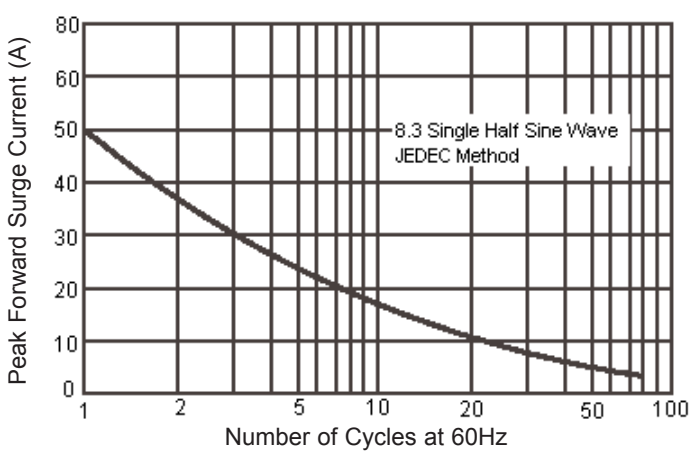
Maximum Forward Current Derating Curve



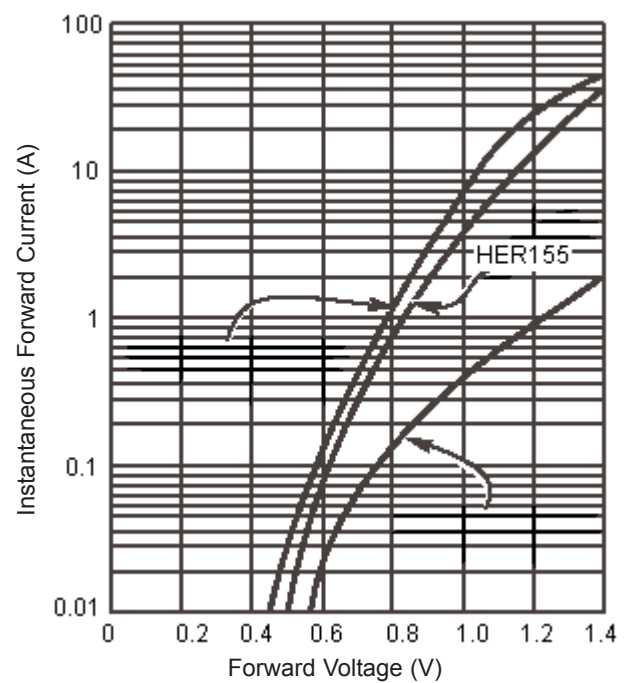
Typical Reverse Characteristics



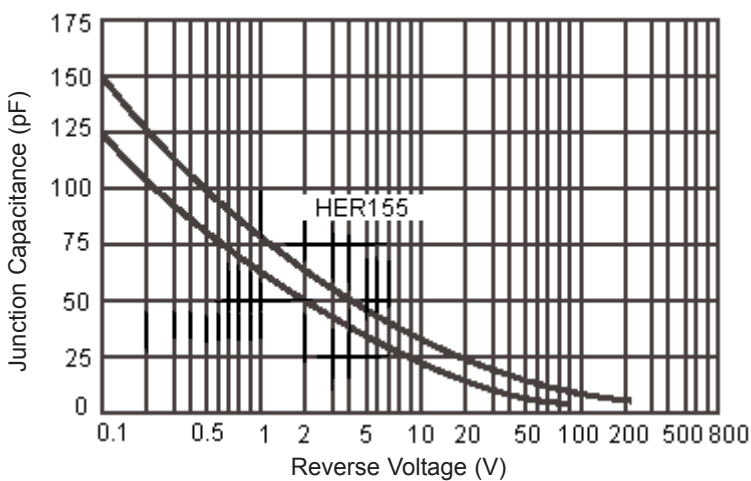
Maximum Non-Repetitive Forward Surge Current



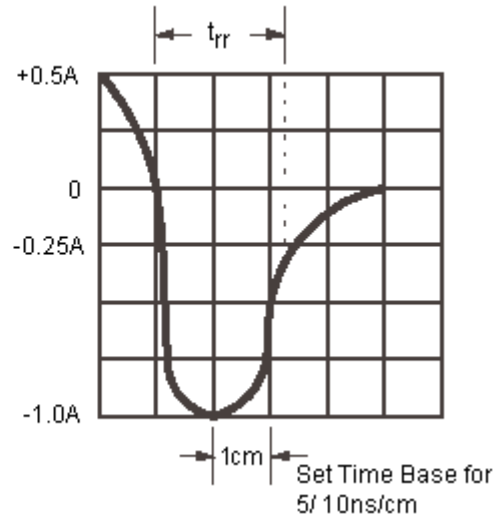
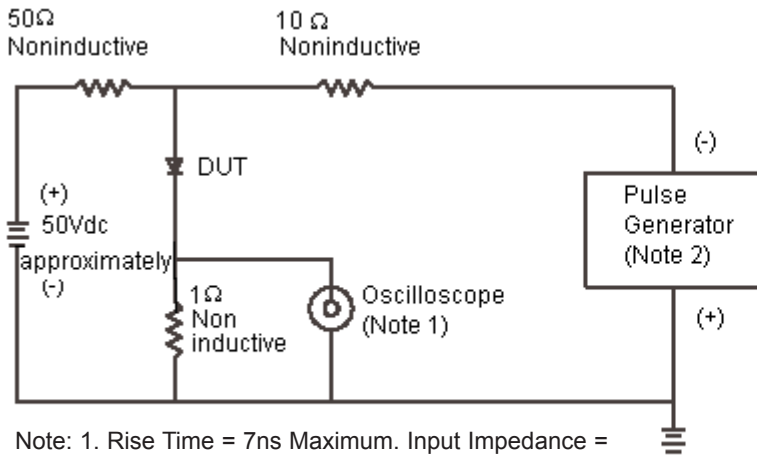
Typical Instantaneous Forward Characteristics



Typical Junction Capacitance



Reverse Recovery Time Characteristic and Test Circuit Diagram



Note: 1. Rise Time = 7ns Maximum. Input Impedance = 1 Megohm 22pf
 2. Rise Time = 10ns Maximum Source Impedance = 50 ohms

Part Number Table

| Description | Part Number |
|-------------------------|-------------|
| Diode, Fast, 1.5A, 100V | HER152 |
| Diode, Fast, 1.5A, 400V | HER155 |
| Diode, Fast, 1.5A, 800V | HER157 |

Notes:

International Sales Offices:

| | | | | | | | |
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