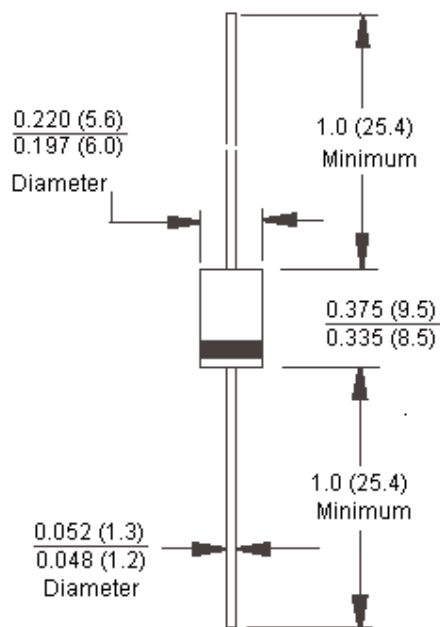




## Features:

- 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-201AD



Dimensions : Inches (Millimetres)

## Mechanical Data:

|                                       |  |
|---------------------------------------|--|
| Cases                                 | : Moulded plastic.   |
| 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.   |
| Weight                                | : 1.2 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          | HER308      | Units                          |
|--|-----------------|-------------|--------------------------------|
| Maximum Recurrent Peak Reverse Voltage   | $V_{RRM}$       | 1000        | V                              |
| Maximum RMS Voltage  | $V_{RMS}$       | 700         |                                |
| Maximum DC Blocking Voltage  | $V_{DC}$        | 1000        |                                |
| Maximum Average Forward Rectified Current 0.375 inch (9.5mm) Lead Length at $T_A = 55^\circ\text{C}$             | $I_{(AV)}$      | 3.0         | A                              |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )               | $I_{FSM}$       | 150         |                                |
| Maximum Instantaneous Forward Voltage at 3.0A  | $V_F$           | 1.7         | V                              |
| Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 125^\circ\text{C}$ | $I_R$           | 10<br>250   | $\mu\text{A}$<br>$\mu\text{A}$ |
| Maximum Reverse Recovery Time (Note 1)   | $T_{rr}$        | 75          | nS                             |
| Typical Junction Capacitance (Note 2)  | $C_j$           | 50          | pF                             |
| Typical Thermal Resistance   | $R_{\theta JA}$ | 40          | $^\circ\text{C}/\text{W}$      |
| Operating Temperature Range  | $T_J$           | -65 to +150 | $^\circ\text{C}$               |
| Storage Temperature Range  | $T_{STG}$       |             |                                |

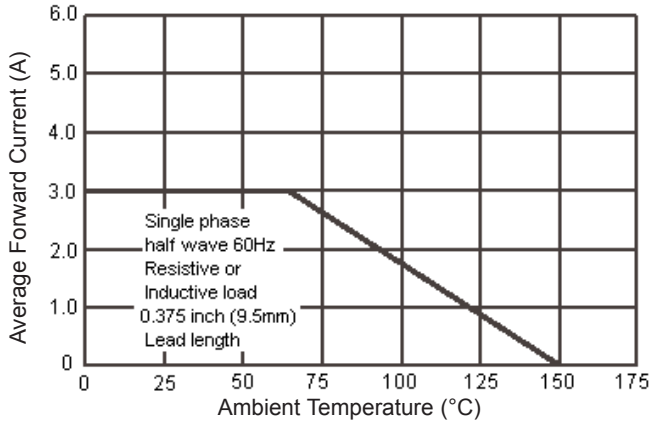
Note: 1. Reverse Recovery Test Conditions:  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{RR} = 0.25\text{A}$ .

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

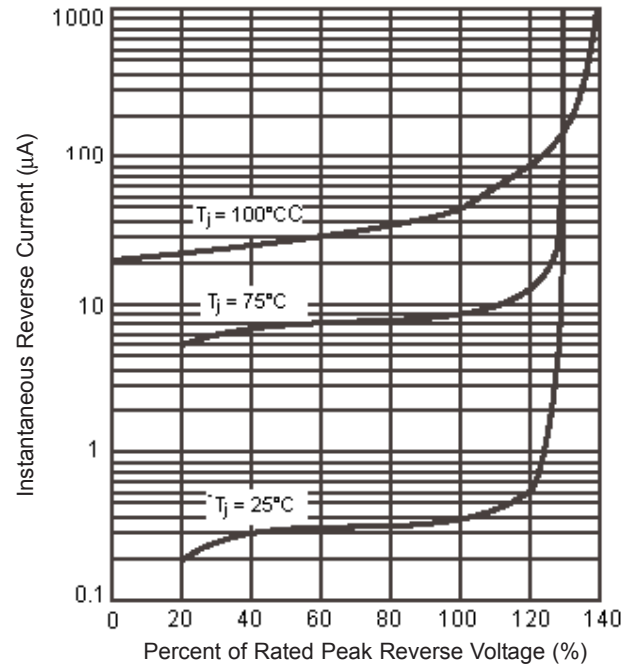
3. Mount on Cu-Pad Size 16mm x 16mm on PCB.

## Ratings and Characteristic Curves (HER308)

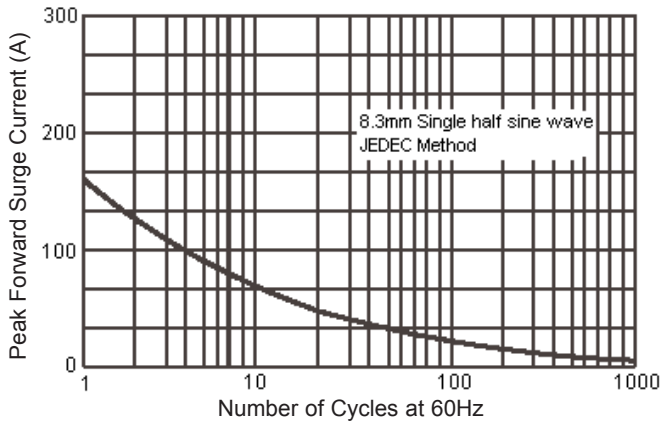
Maximum Forward Current Derating Curve



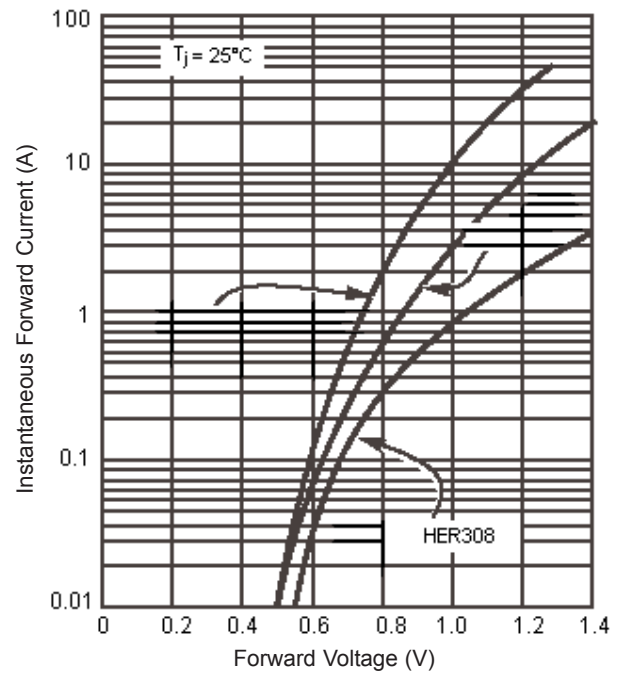
Typical Reverse Characteristics



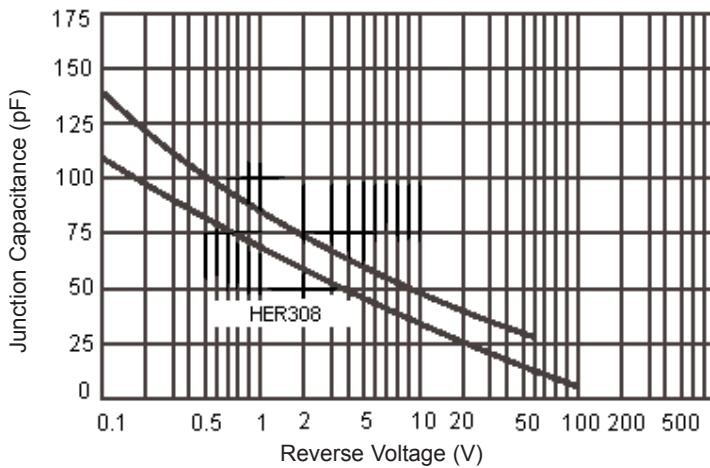
Maximum Non-Repetitive Forward Surge Current



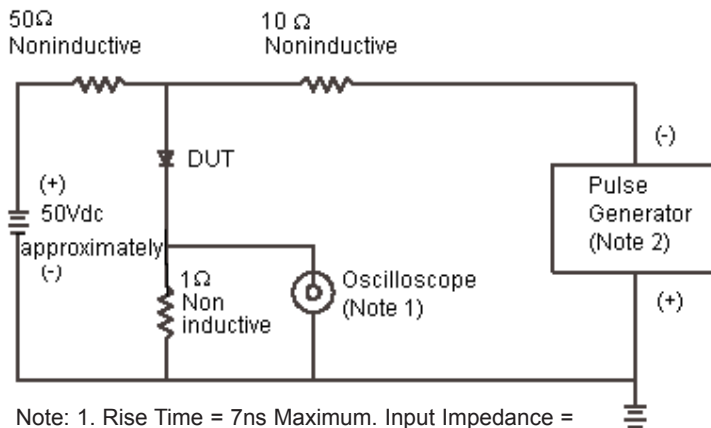
Typical Instantaneous Forward Characteristics



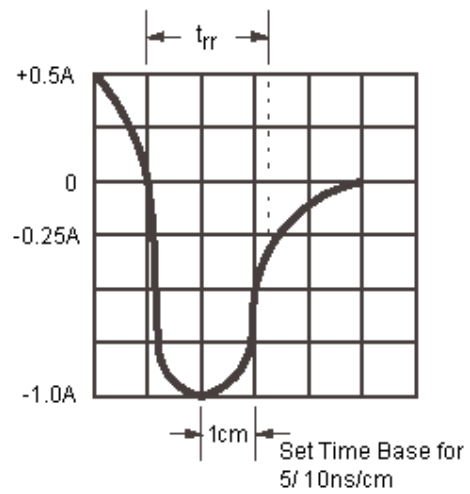
Typical Junction Capacitance



## 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, 3A, 1000V | HER308      |

## Notes:

### International Sales Offices:

|   |   |   |   |   |  |  |  |
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