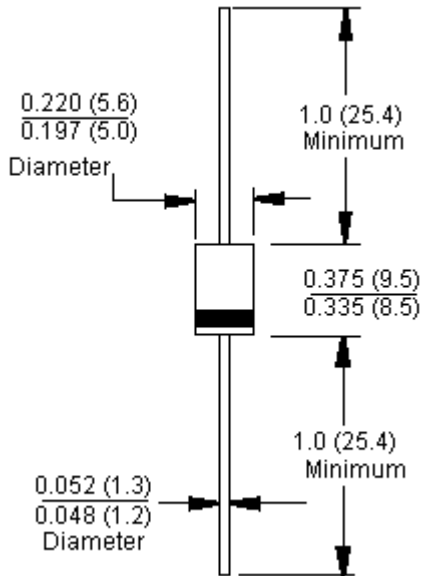




### Features:

- Low forward voltage drop.
- High current capability.
- High reliability.
- High surge current capability.

### DO-201AD



Dimensions : Inches (Millimetres)

### Mechanical Data

Case	: Moulded plastic.
Epoxy	: Rate flame retardant.
Lead	: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed.
Polarity	: Colour band denotes cathode end.
High temperature soldering guaranteed	: 250°C/10 seconds/0.375 inch, (9.5mm) lead lengths at 5lbs., (2.3kg) tension.
Mounting position	: Any.
Weight	: 1.1 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%

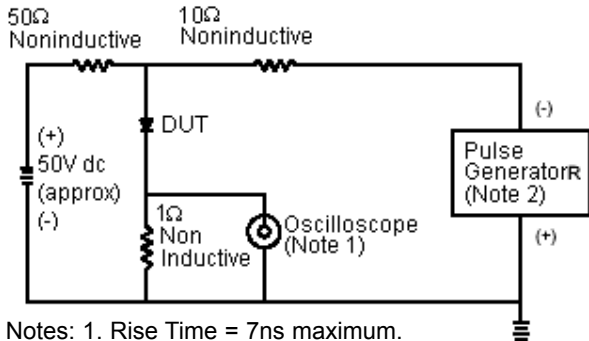
Type Number	HER 301G	HER 302G	HER 307G	HER 308G	Units
Maximum Recurrent Peak Reverse Voltage	50	100	800	1000	V
Maximum RMS Voltage	35	70	560	700	
Maximum DC Blocking Voltage	50	100	800	1000	
Maximum Average Forward Rectified Current 0.375 (9.5mm) Lead Length at $T_A = 55^\circ\text{C}$	3.0				A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	125				
Maximum Instantaneous Forward Voltage at 3.0A	1.0		1.7		V
Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 125^\circ\text{C}$	10.0 200				$\mu\text{A}$
Maximum Reverse Recovery Time ( Note 1 )	50		75		nS
Typical Junction Capacitance ( Note 2 )	80		50		pF
Typical Thermal Resistance (Note 3) $R_{\theta JA}$ $R_{\theta JL}$	20.0 5.6				$^\circ\text{C/W}$
Operating & Storage Temperature Range $T_J / T_{STG}$	-65 to +150				$^\circ\text{C}$

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

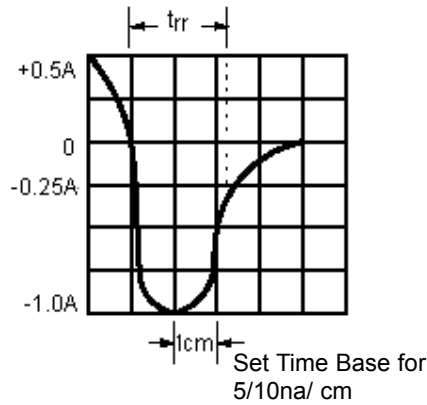
2. Measured at 1MHz and Applied Reverse Voltage of 4.0V dc.

3. Thermal Resistance from Junction to Ambient and from Junction to Lead at 0.375 inch (9.5mm) Lead Length PCB Mounted.

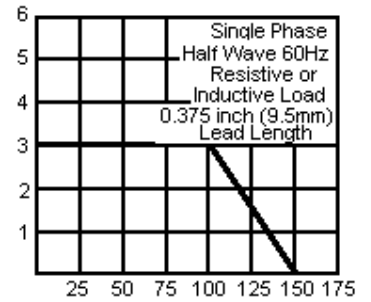
### Reverse Recovery Time Characteristic and Test Circuit Diagram



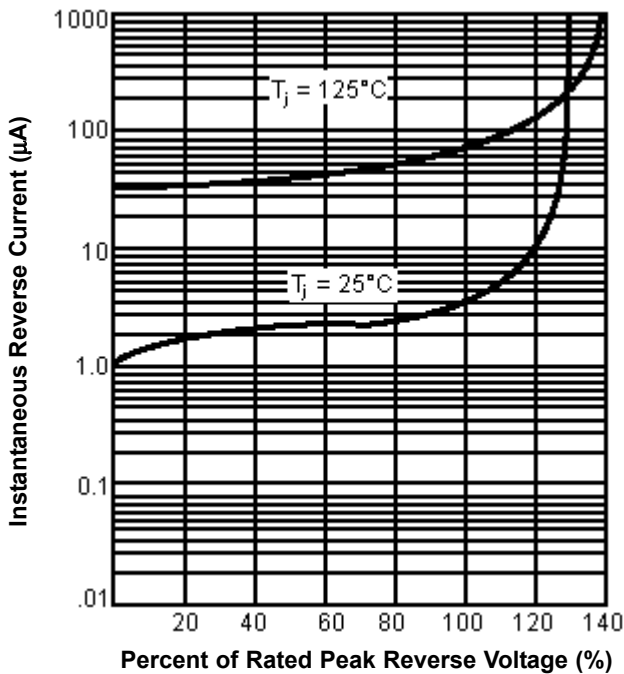
- Notes: 1. Rise Time = 7ns maximum.  
Input Impedance = 1 megohm 22pf  
2. Rise Time = 10ns maximum  
Source Impedance = 50 ohms



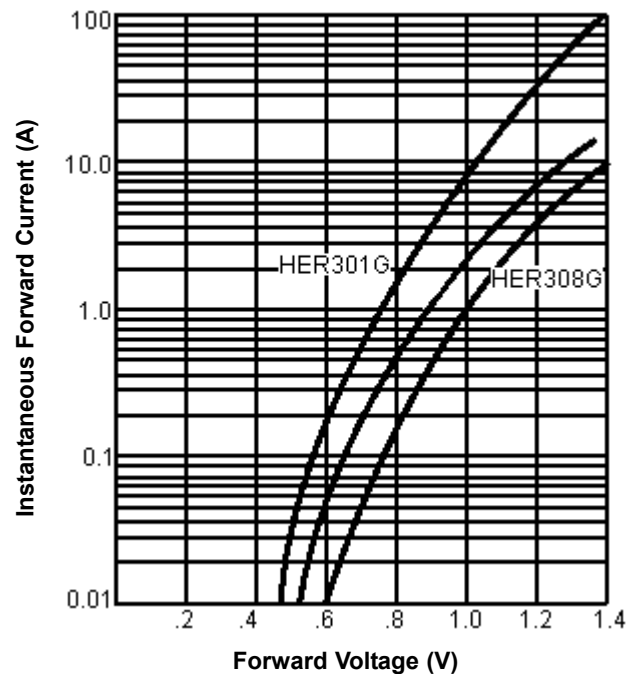
### Maximum Forward Current Derating Curve



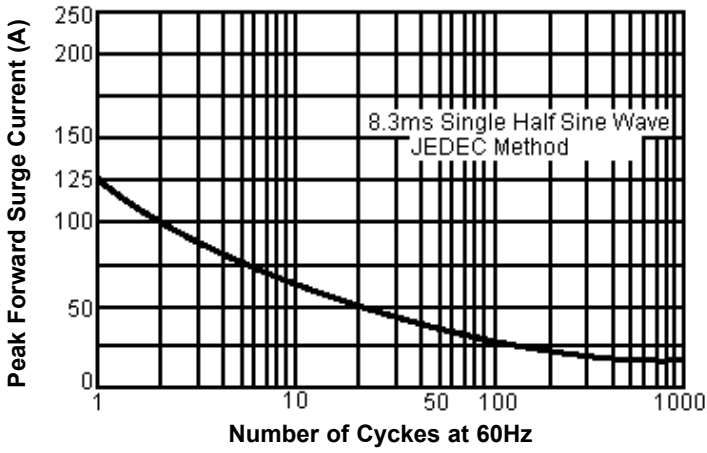
### Typical Reverse Characteristics



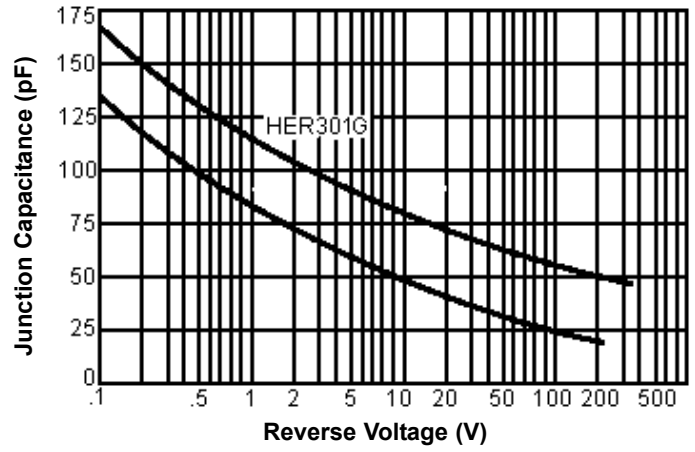
### Typical Forward Characteristics



Maximum Non-Repetitive Forward Surge Current



Typical Junction Capacitance



## Part Number Table

Description	Part Number
Diode, Fast, 3A, 50V	HER301G
Diode, Fast, 3A, 100V	HER302G
Diode, Fast, 3A, 800V	HER307G
Diode, Fast, 3A, 1000V	HER308G

## Notes:

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