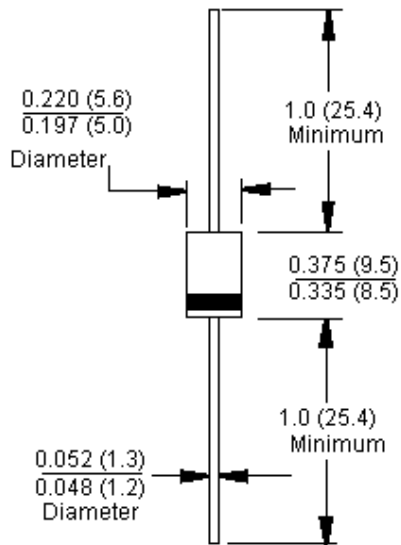


**Features:**

- 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%

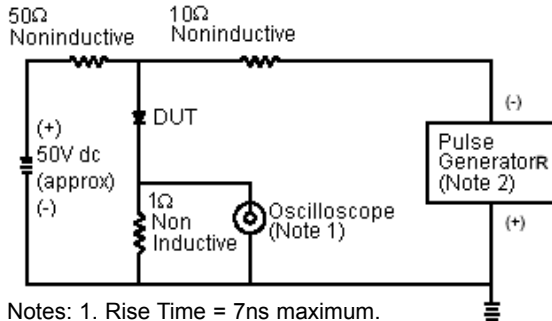
Type Number	HER 301G	HER 302G	HER 307G	HER 308G	Units
Maximum Recurrent Peak Reverse Voltage	50	100	800	1000	V
Maximum RMS Voltage	35	70	560	700	
Maximum DC Blocking Voltage	50	100	800	1000	
Maximum Average Forward Rectified Current 0.375 (9.5mm) Lead Length at $T_A = 55^\circ\text{C}$	3.0				A
Peak 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				μA
Maximum Reverse Recovery Time (Note 1)	50		75		nS
Typical Junction Capacitance (Note 2)	80		50		pF
Typical Thermal Resistance (Note 3) R θ JA R θ 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: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$.

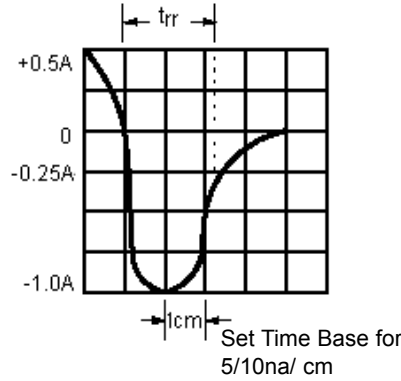
2. Measured at 1MHz and Applied Reverse Voltage of 4.0V dc.

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

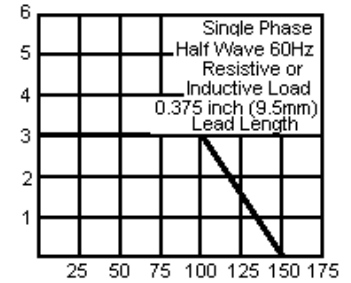
Reverse Recovery Time Characteristic and Test Circuit Diagram



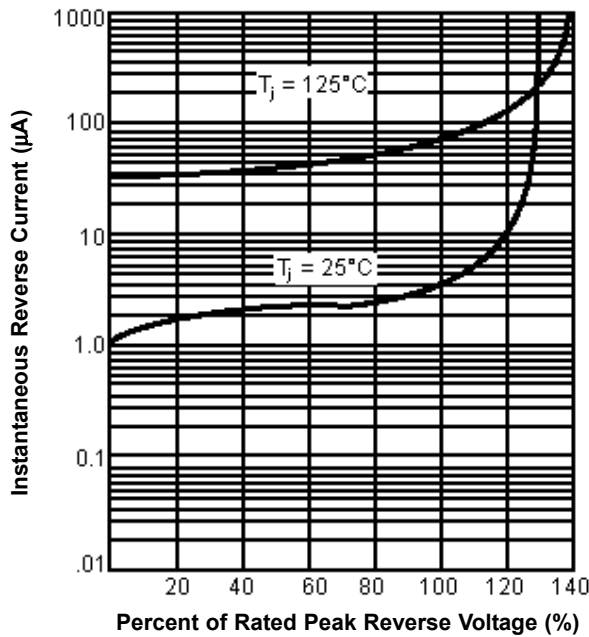
- Notes: 1. Rise Time = 7ns maximum.
Input Impedance = 1 megohm 22pf
2. Rise Time = 10ns maximum
Source Impedance = 50 ohms



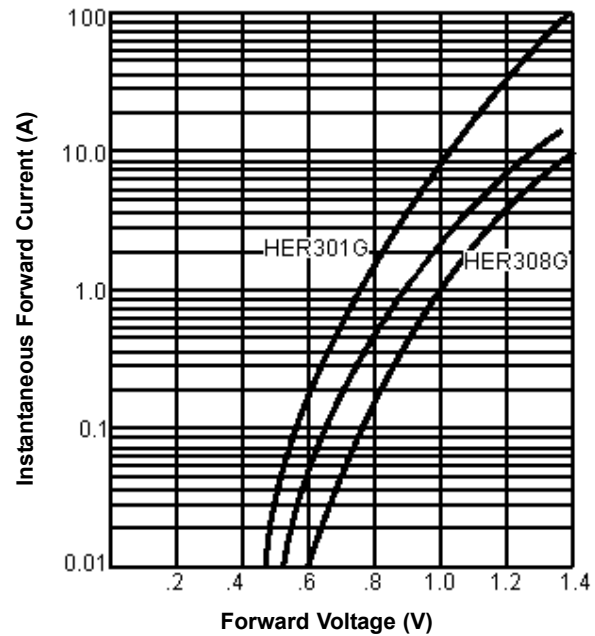
Maximum Forward Current Derating Curve



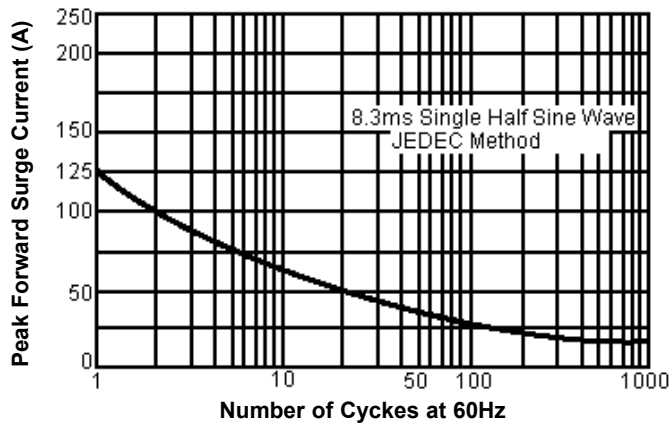
Typical Reverse Characteristics



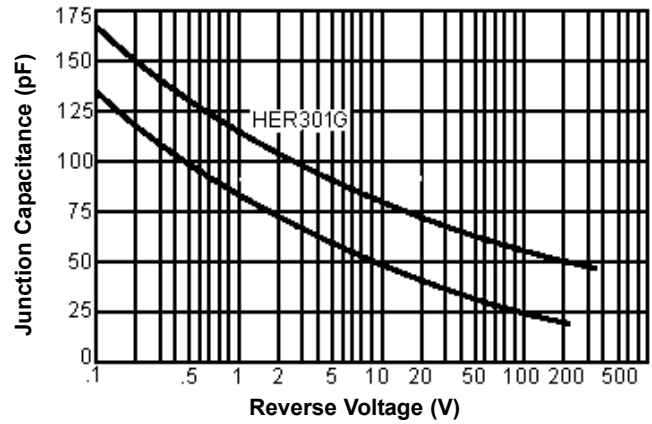
Typical Forward Characteristics



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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