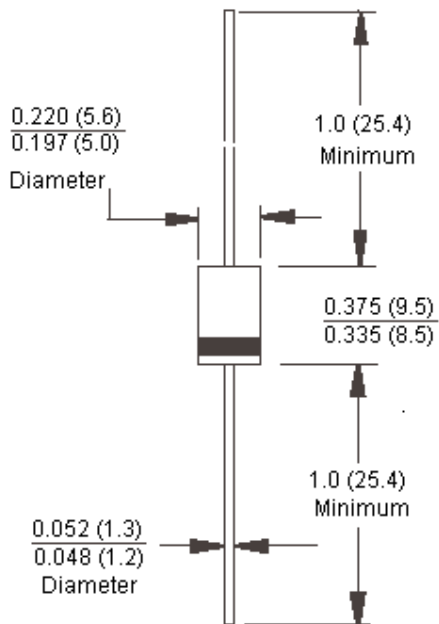




Features:

- Glass passivated chip junction.
- 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.
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	Symbol	HER305G	HER306G	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	400	600	V
Maximum RMS Voltage	V _{RMS}	280	420	
Maximum DC Blocking Voltage	V _{DC}	400	600	
Maximum Average Forward Rectified Current 0.375 inch (9.5mm) Lead Length at T _A = 55°C	I _(AV)	3.0		A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	125		
Maximum Instantaneous Forward Voltage at 3.0A	V _F	1.3	1.7	V
Maximum DC Reverse Current at T _A = 25°C at Rated DC Blocking Voltage at T _A = 125°C	I _R	10 200		μA μA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	50	75	nS
Typical Junction Capacitance (Note 2)	C _j	60	35	pF
Typical Thermal Resistance (Note 3)	R _{θJA} R _{θJL}	35 10		°C/W
Operating Temperature Range	T _J /T _{STG}	-65 to +150		°C

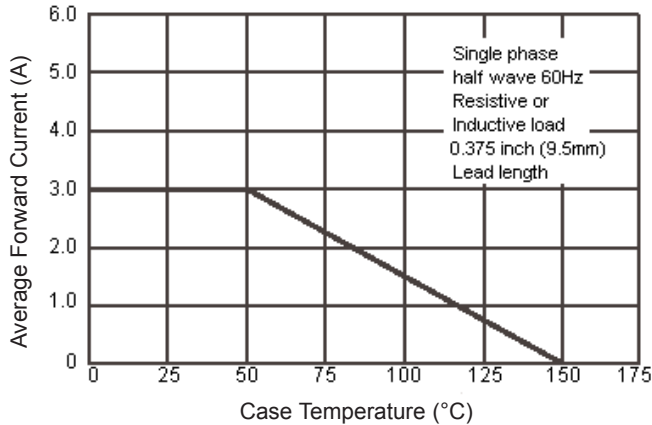
Note: 1. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$.

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

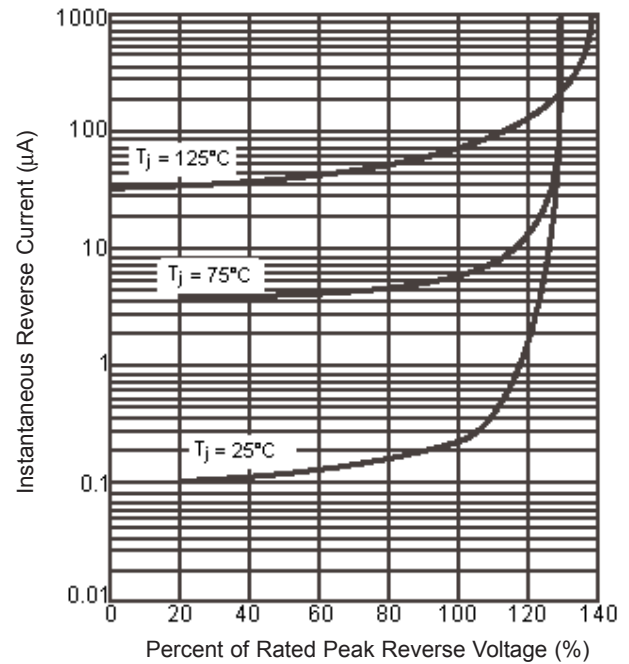
3. Mount on Cu-Pad Size 16mm x 16mm on PCB.

Ratings and Characteristic Curves (HER305G, HER306G)

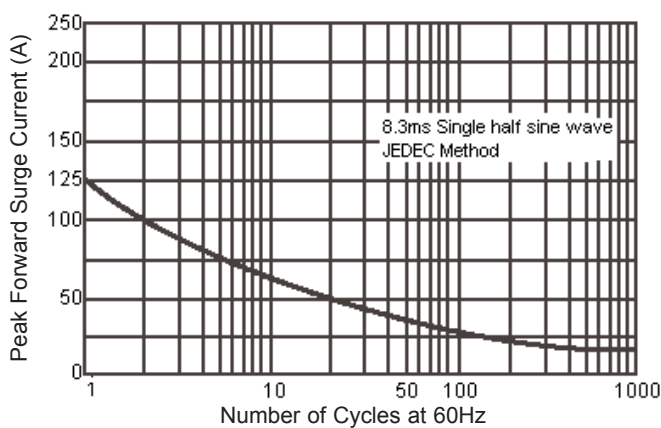
Maximum Forward Current Derating Curve



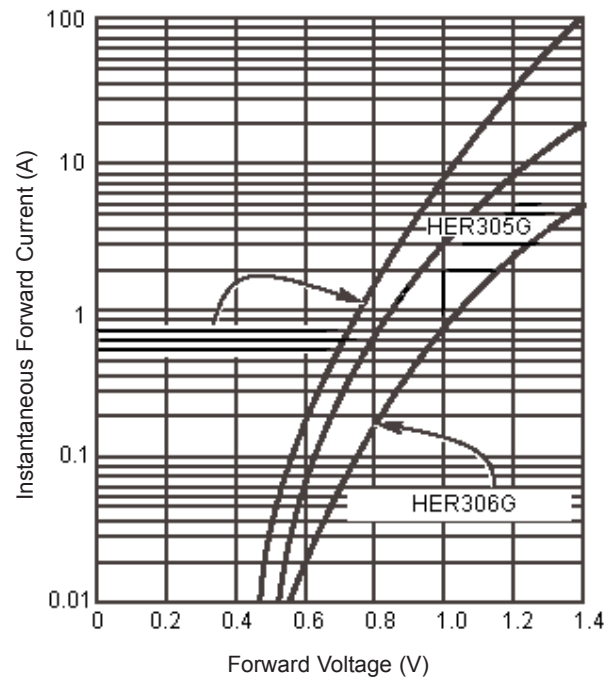
Typical Reverse Characteristics



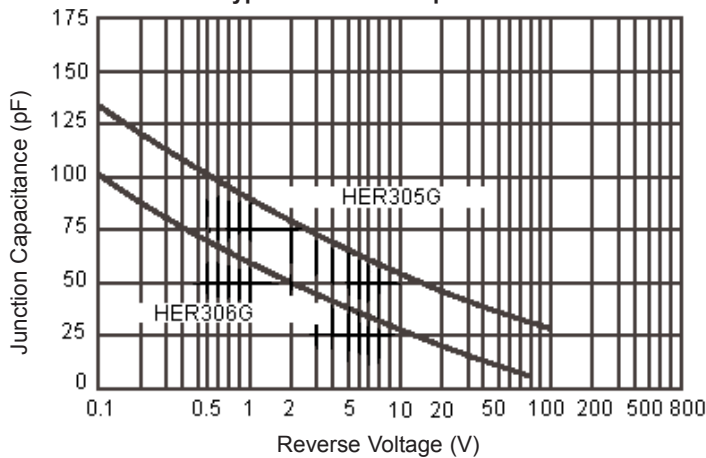
Maximum Non-Repetitive Forward Surge Current



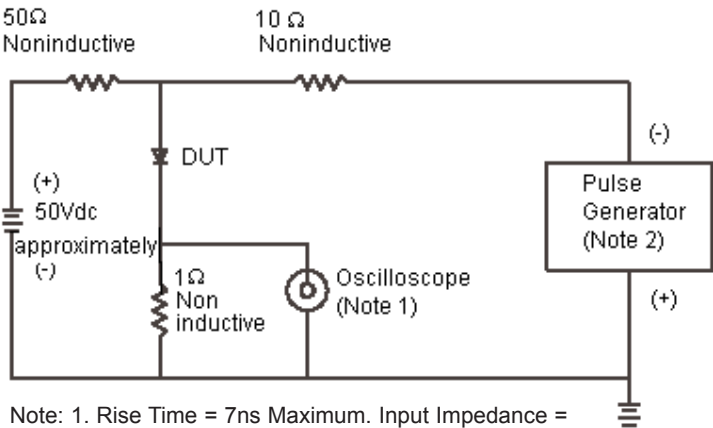
Typical Forward Characteristics



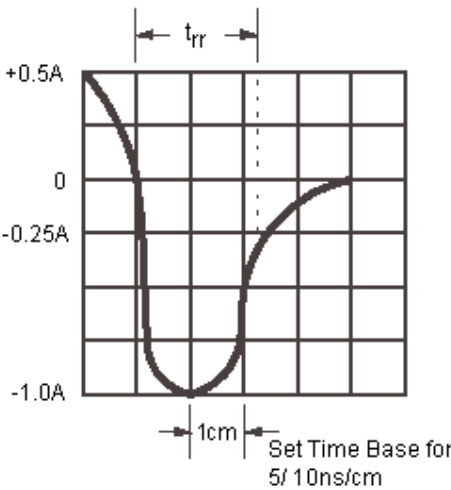
Typical Junction Capacitance



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, 400V	HER305G
Diode, Fast, 3A, 600V	HER306G

Notes:

International Sales Offices:

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