

Diode Fast



RoHS
Compliant



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

Specifications:

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", (9.5mm) lead lengths at 5lbs., (2.3kg) tension
Mounting position	: Any
Weight	: 0.4g

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	HER202G	HER204G	HER207G	HER208G	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	300	800	1,000	V
Maximum RMS Voltage	V_{RMS}	70	210	560	700	
Maximum DC Blocking Voltage	V_{DC}	100	300	800	1,000	
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Length at $T_A = 55^\circ\text{C}$	$I_{(AV)}$	2				A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	60				
Maximum Instantaneous Forward Voltage at 2A	V_F	1		1.7		V

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Type Number	Symbol	HER202G	HER204G	HER207G	HER208G	Units
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	5 150				μA μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	50		75		nS
Typical Junction Capacitance (Note 2)	C_j	35		20		pF
Typical Thermal Resistance	$R_{\theta JA}$	60				$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	-65 to +150				$^\circ\text{C}$
Storage Temperature Range	T_{STG}					

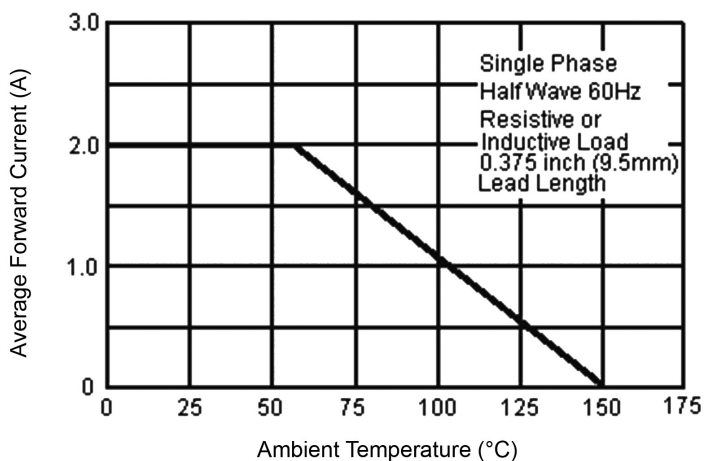
Note: 1. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{RR} = 0.25\text{A}$.

Note: 2. Measured at 1MHz and Applied Reverse Voltage of 4V DC.

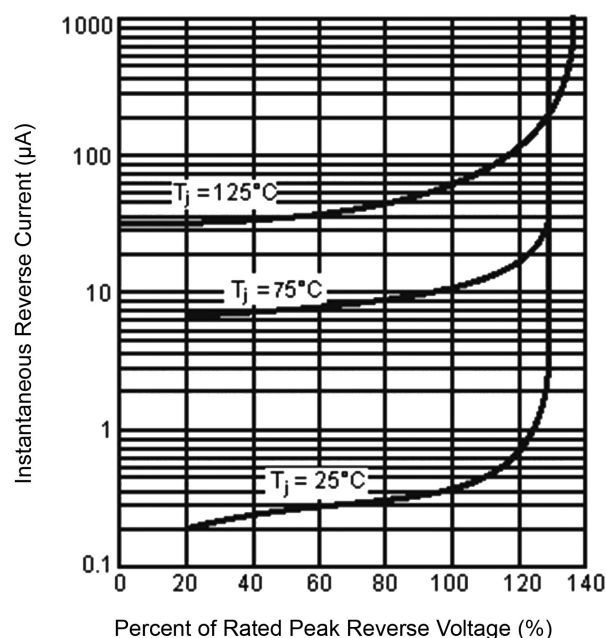
Note: 3. Mount on Cu-Pad Size 10mm x 10mm on PCB.

Ratings and Characteristic Curves (HER202G, HER204G, HER207G and HER208G)

Maximum Forward Current Derating Curve



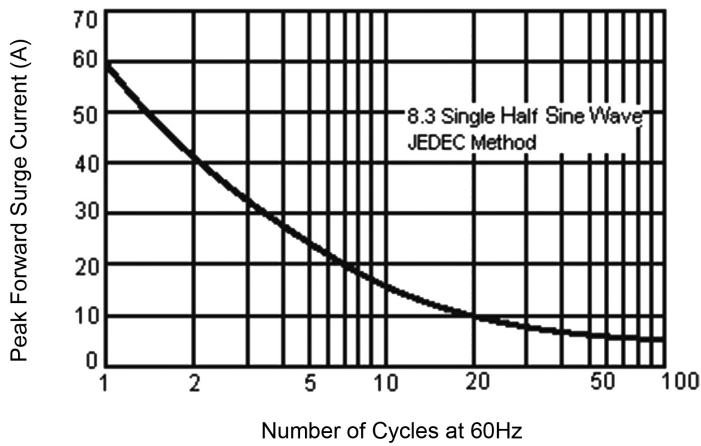
Typical Reverse Characteristics



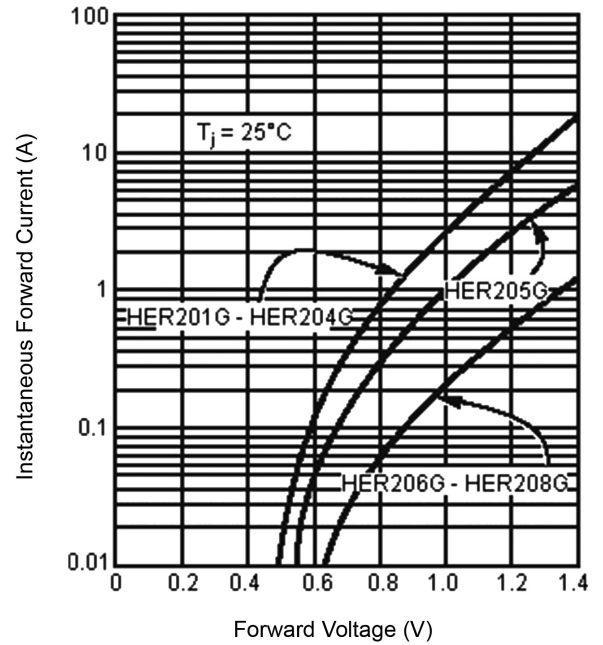
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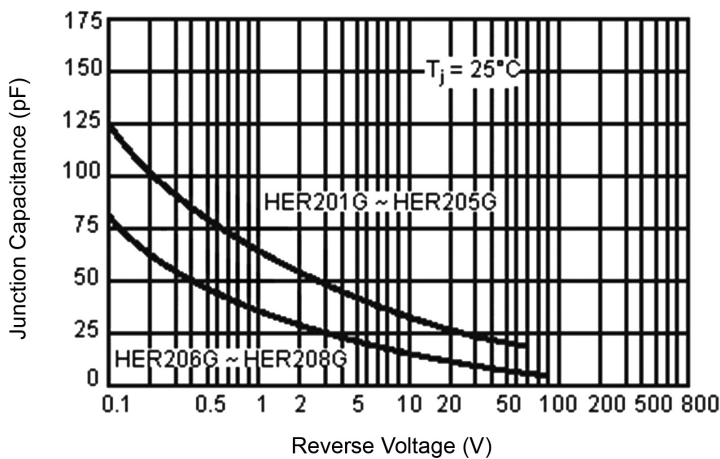
Maximum Non-Repetitive Forward Surge Current



Typical Instantaneous Forward Characteristics



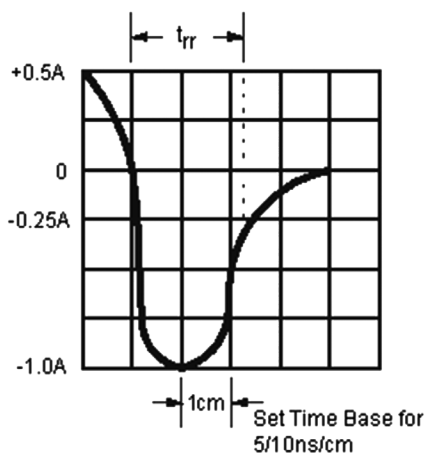
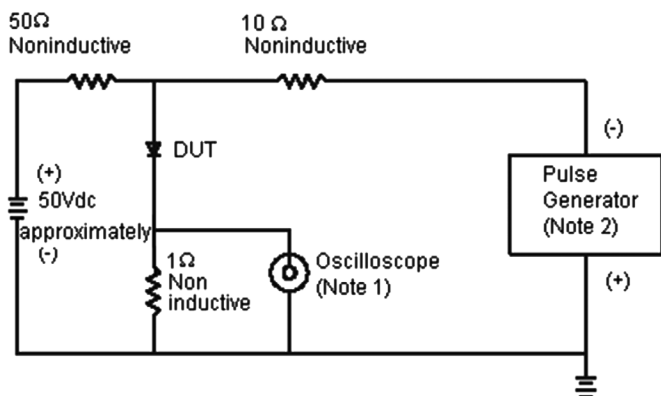
Typical Junction Capacitance



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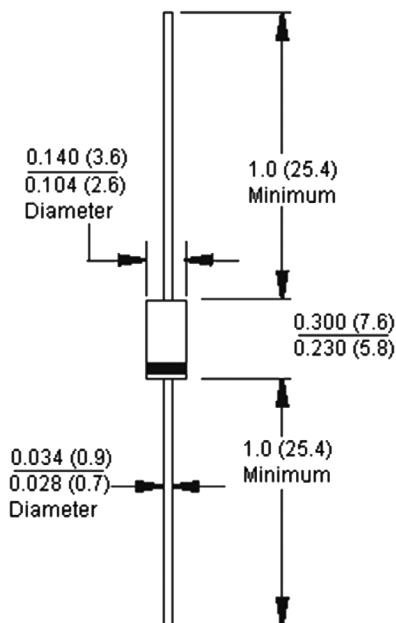
Reverse Recovery Time Characteristic and Test Circuit Diagram



Note: 1. Rise Time = 7ns Maximum. Input Impedance = 1MΩ 22pf

Note: 2. Rise Time = 10ns Maximum Source Impedance = 50Ω

DO-15



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Diode, Fast, 2A, 100V	HER202G
Diode, Fast, 2A, 300V	HER204G
Diode, Fast, 2A, 800V	HER207G
Diode, Fast, 2A, 1,000V	HER208G

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