



# HER201G THRU HER208G

## HIGH EFFICIENCY RECTIFIER

**REVERSE VOLTAGE:** 50 to 1000 VOLTS

**FORWARD CURRENT:** 2.0 AMPERE

### FEATURES

- Low leakage
- High current capability
- Ultra Fast switching for high efficiency.
- Glass Passivated Die Construction
- Low power loss, high efficiency
- Low forward voltage drop
- Suffix "H" indicates Halogen-free parts, ex. HER201GH

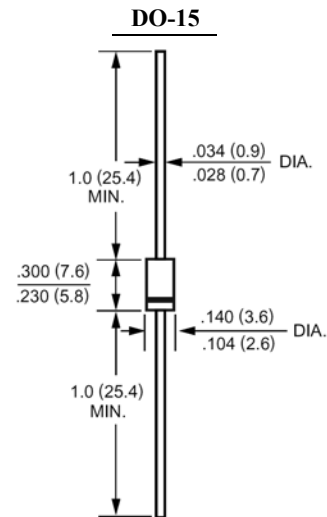
### MECHANICAL DATA

Case : Molded plastic, DO-15

Terminals : Axial leads, solderable per MIL-STD-202,  
method 208 guaranteed

Polarity : Band denotes cathode

Mounting position : Any



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Parameter	Symbols	HER201G	HER202G	HER203G	HER205G	HER206G	HER207G	HER208G	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at $T_A=50^\circ\text{C}$	$I_{(AV)}$	2.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	60.0							Amp
Maximum Forward Voltage at 2.0A and $T_A=25^\circ\text{C}$	$V_F$	1.0		1.3		1.7		Volts	
Maximum Reverse Current at $T_j=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_j=100^\circ\text{C}$	$I_R$	5.0 150							uAmp
Typical Junction Capacitance (Note 1)	$C_J$	30				20			pF
Maximum Reverse Recovery Time (Note 2)	$T_{RR}$	50				75			nS
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	60.0							°C/W
Operating and Storage Temperature Range	$T_J, T_{stg}$	-65 to +150							°C

#### NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Reverse Recovery Test Conditions:  $I_F=.5A$ ,  $I_R=1A$ ,  $I_{RR}=25A$ .

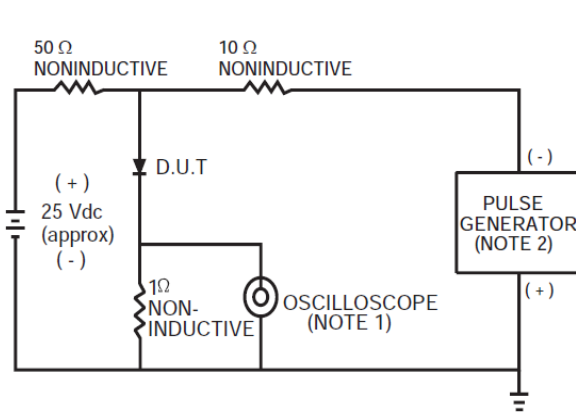
3- Thermal Resistance from junction to Ambient at 0.375"(9.5mm) lead length P.C.B. Mounted.



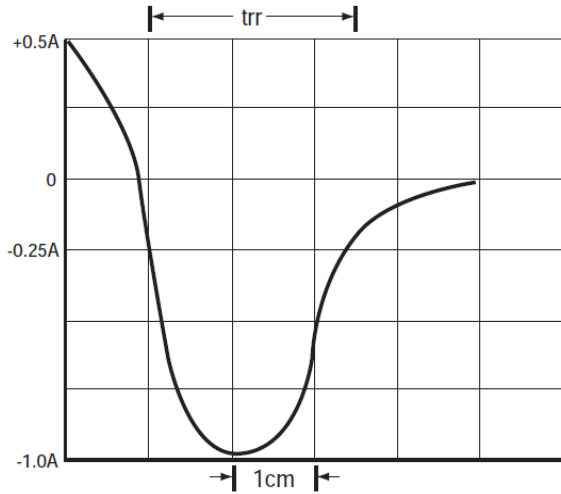
# HER201G THRU HER208G

## HIGH EFFICIENCY RECTIFIER

### RATINGS AND CHARACTERISTIC CURVES



- NOTES: 1. Rise Time = 7ns max. Input Impedance = 1 megohm. 22pF.  
 2. Rise Time = 10ns max. Source Impedance = 50 ohms.



SET TIME BASE FOR 20/1 ns/cm

FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

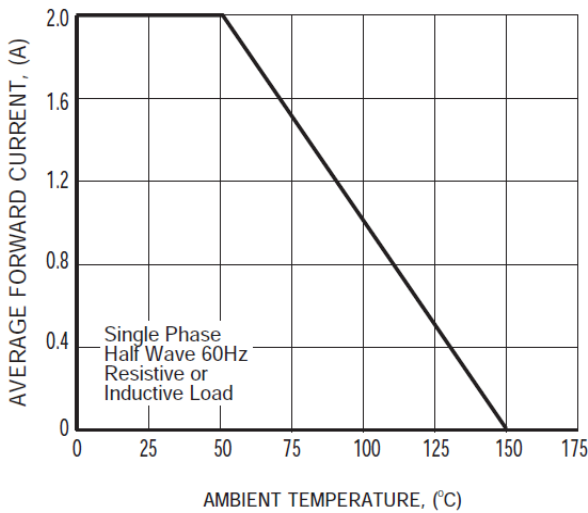


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

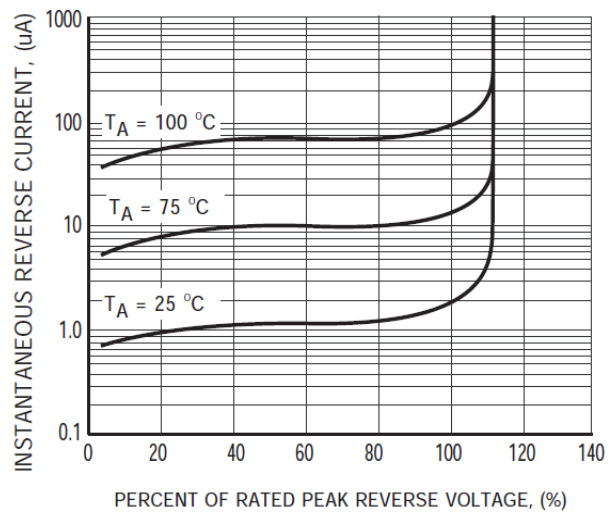


FIG.3 TYPICAL REVERSE CHARACTERISTICS

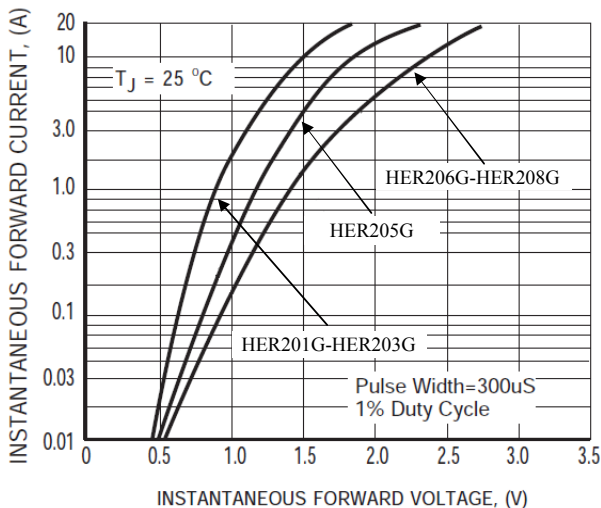


FIG.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

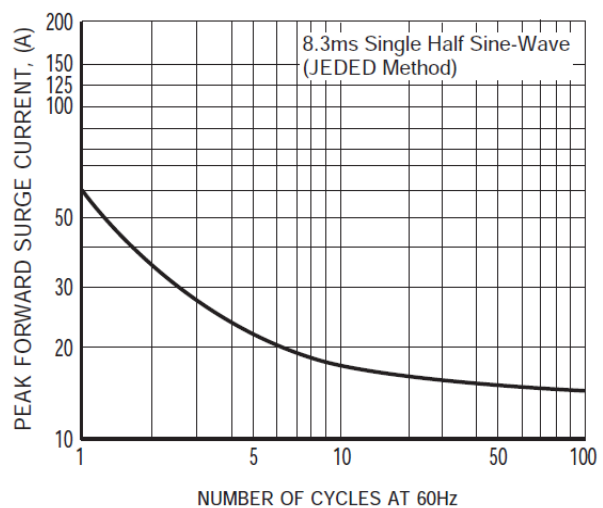


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT