

HER201G THRU HER208G

High Efficiency Rectifiers

Reverse Voltage – 50 to 1000 V

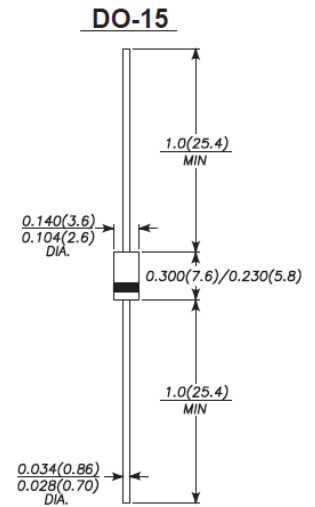
Forward Current – 2 A

Features

- Void-free plastic in a DO-15 package
- 2A operation at $T_a = 55^\circ\text{C}$ with no thermal runaway
- Ultra fast switching for high efficiency
- Glass passivated

Mechanical Data

- **Case:** Molded plastic
- **Lead:** MIL-STD-202, method 208 guaranteed
- **Polarity:** Band denotes cathode
- **Mounting Position:** Any



Absolute Maximum Ratings and Characteristics

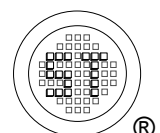
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

	Symbols	HER 201G	HER 202G	HER 203G	HER 204G	HER 205G	HER 206G	HER 207G	HER 208G	Units
	Marking	HER 201G	HER 202G	HER 203G	HER 204G	HER 205G	HER 206G	HER 207G	HER 208G	-
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_A = 50^\circ\text{C}$	$I_{F(AV)}$	2								A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed On Rated Load (JEDEC Method)	I_{FSM}	60								A
Maximum Instantaneous Forward Voltage at 2 A	V_F	1.0		1.3		1.7			V	
Maximum DC Reverse Current $T_J = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J = 100^\circ\text{C}$	I_R	5				100				μA
Maximum Reverse Recovery Time ¹⁾	t_{rr}	50				75				ns
Typical Junction Capacitance ²⁾	C_J	30				20				pF
Typical Thermal Resistance ³⁾	$R_{\theta JA}$	50								$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{Stg}	-55 to +150								$^\circ\text{C}$

¹⁾ Test conditions: $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{RR} = 0.25\text{A}$.

²⁾ Measured at 1 MHz and applied reverse voltage of 4 volts.

³⁾ Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length P.C.B. mounted.

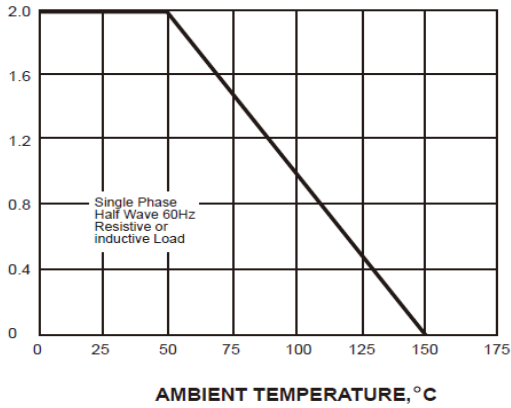


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Electrical Characteristics Curves

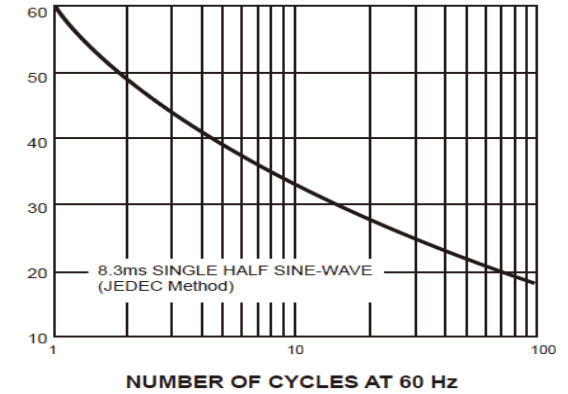
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



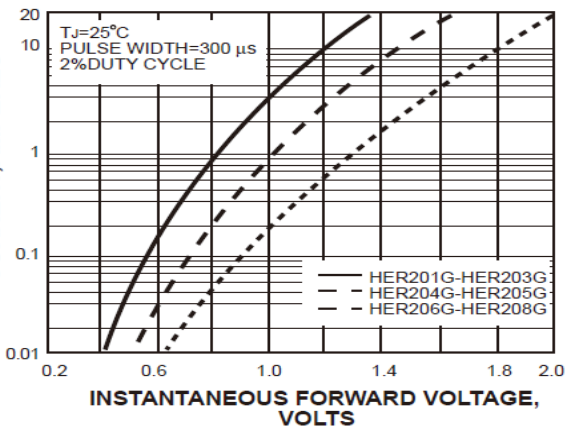
PEAK FORWARD SURGE CURRENT, AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



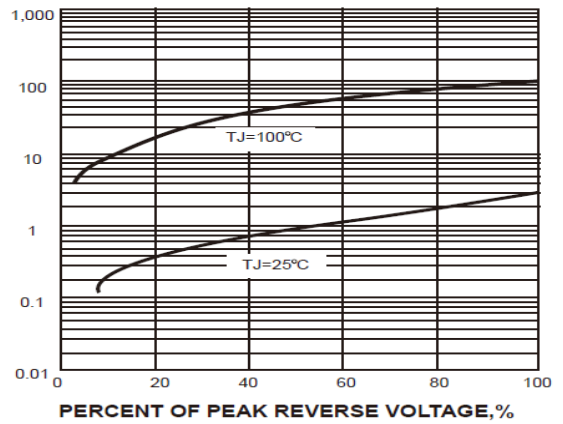
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



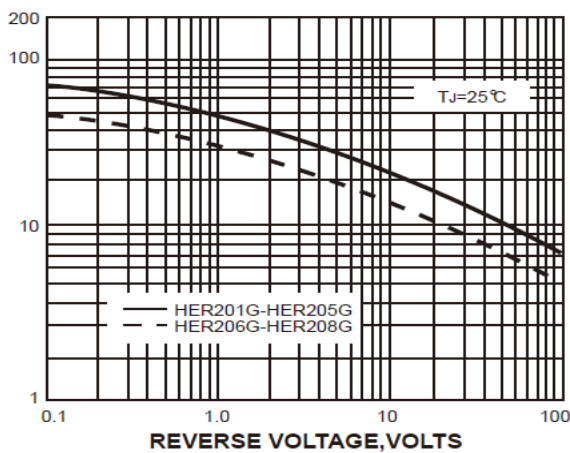
INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



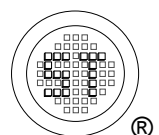
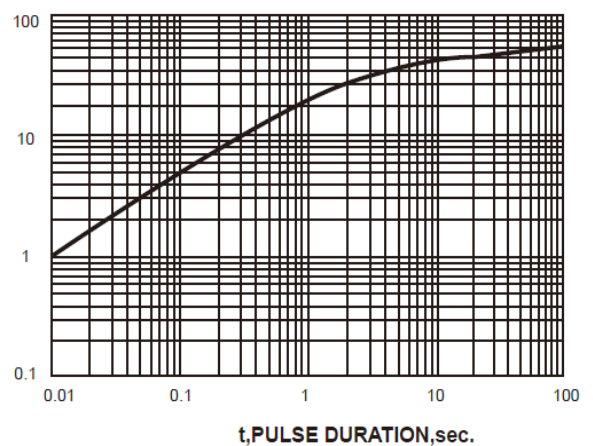
JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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Marking information

"*****" = Part No.

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