

HER201 - HER208

2.0 AMPS. High Efficiency Rectifiers

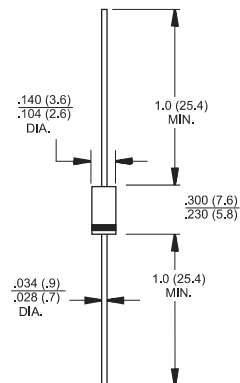
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Features

- High efficiency, Low VF
- High current capability
- High reliability
- High surge current capability
- For use in low voltage, high frequency inverter, free wheeling, and polarity protection application.

Mechanical Data

- Cases: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Pure tin plated, lead free, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode
- High temperature soldering guaranteed: 260°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- Weight: 0.40grams



Dimensions in inches and (millimeters)

Maximum Rating and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%

Type Number	Symbol	HER 201	HER 202	HER 203	HER 204	HER 205	HER 206	HER 207	HER 208	Units	
Maximum Recurrent 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 .375 (9.5mm) lead length @ $T_A = 55^\circ C$	$I_{(AV)}$	2.0								A	
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	60								A	
Maximum Instantaneous Forward Voltage @ 2.0A	V_F	1.0			1.3		1.7			V	
Maximum DC Reverse Current @ $T_a=25^\circ C$ at Rated DC Blocking Voltage @ $T_a=125^\circ C$	I_R	5.0					150				uA uA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	50					75				nS
Typical Junction Capacitance (Note 2)	C_j	50					35				pF
Typical Thermal Resistance	R_{JA}	60								°C/W	
Operating Temperature Range	T_J	-65 to +150								°C	
Storage Temperature Range	T_{STG}	-65 to +150								°C	

- Notes:
- Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$
 - Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.
 - Mount on Cu-Pad Size 10mm x 10mm on PCB.

RATINGS AND CHARACTERISTIC CURVES (HER201 THRU HER208)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

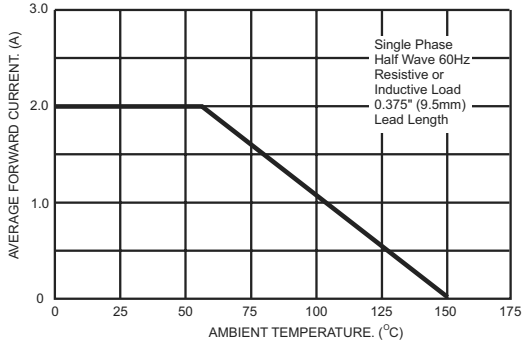


FIG.2- TYPICAL REVERSE CHARACTERISTICS

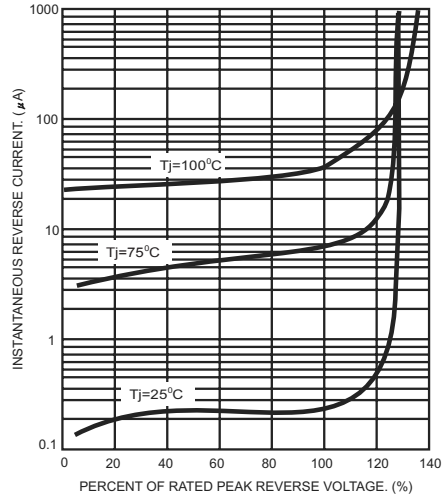


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

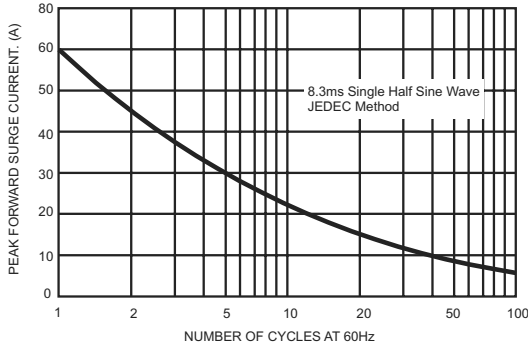


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

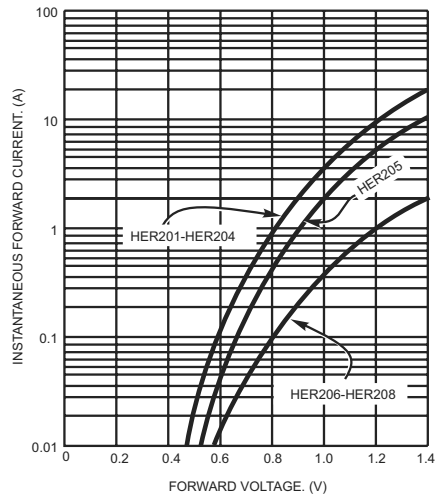


FIG.4- TYPICAL JUNCTION CAPACITANCE

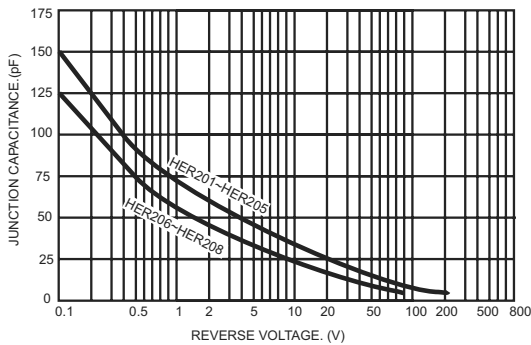
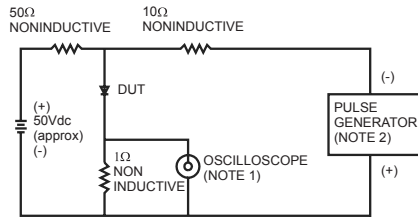


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



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

