



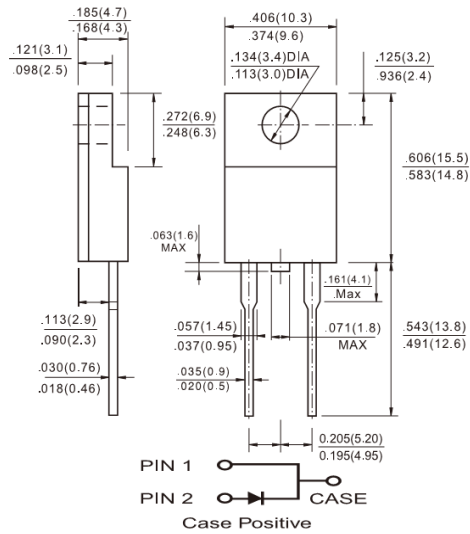
**HERAF1001G - HERAF1008G**  
**10.0AMPS. Isolated Glass Passivated High Efficient Rectifiers**  
**ITO-220AC**

**Features**

- ✧ UL Recognized File # E-326243
- ✧ Glass passivated chip junction
- ✧ 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
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode

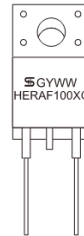
**Mechanical Data**

- ✧ Cases: ITO-220AC Molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Terminals: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: As marked
- ✧ High temperature soldering guaranteed: 260°C/10 seconds/0.25", (6.35mm) from case
- ✧ Mounting torque: 5 in-lbs. max
- ✧ Weight: 1.74 grams



**Dimensions in inches and (millimeters)**

**Marking Diagram**



- HERAF100XG = Specific Device Code
- G = Green Compound
- Y = Year
- WW = Work Week

**Maximum Ratings and Electrical Characteristics**

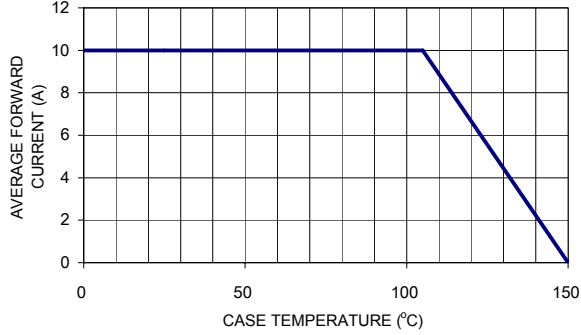
Rating at 25 °C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%

Type Number	Symbol	HERAF 1001G	HERAF 1002G	HERAF 1003G	HERAF 1004G	HERAF 1005G	HERAF 1006G	HERAF 1007G	HERAF 1008G	Units
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	210	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	10								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I <sub>FSM</sub>	150								A
Maximum Instantaneous Forward Voltage (Note 1) @ 10 A	V <sub>F</sub>	1.0			1.3		1.7			V
Maximum DC Reverse Current @ T <sub>A</sub> =25 °C at Rated DC Blocking Voltage @ T <sub>A</sub> =125 °C	I <sub>R</sub>	10				400				uA
Maximum Reverse Recovery Time (Note 2)	T <sub>rr</sub>	50				80				nS
Typical Junction Capacitance (Note 3)	C <sub>j</sub>	80				60				pF
Typical Thermal Resistance	R <sub>θJC</sub>	2.0								°C/W
Operating Temperature Range	T <sub>J</sub>	- 65 to + 150								°C
Storage Temperature Range	T <sub>STG</sub>	- 65 to + 150								°C

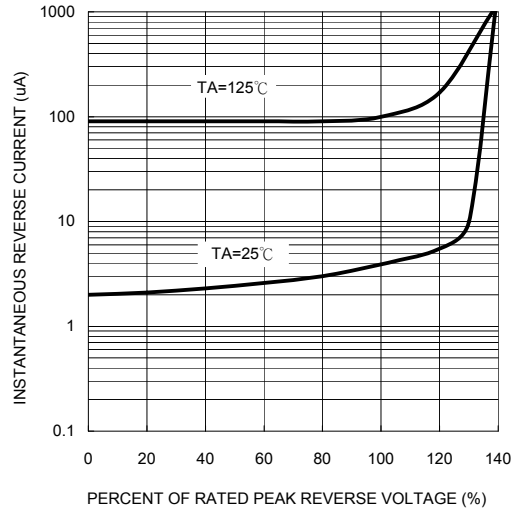
Note 1: Pulse Test with PW=300 usec, 1% Duty Cycle  
 Note 2: Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A  
 Note 3: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

**RATINGS AND CHARACTERISTIC CURVES (HERAF1001G THRU HERAF1008G)**

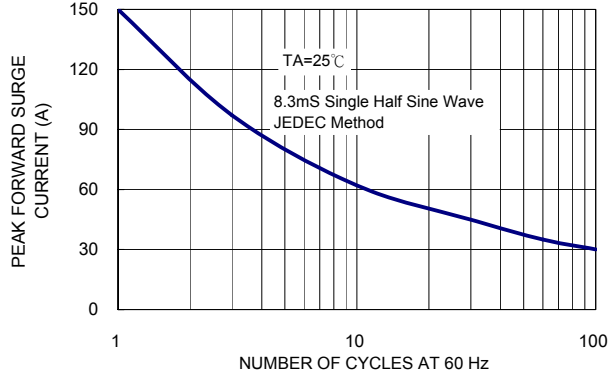
**FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE**



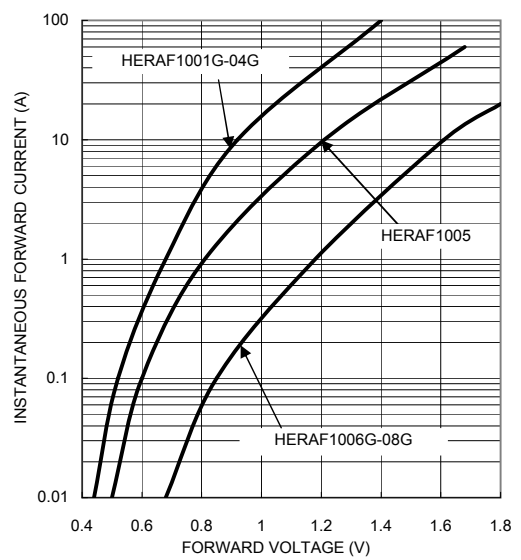
**FIG. 2- TYPICAL REVERSE CHARACTERISTICS**



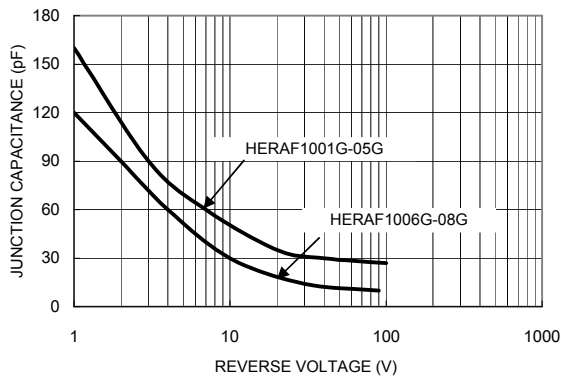
**FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG. 5- TYPICAL FORWARD CHARACTERISTICS**



**FIG. 4- TYPICAL JUNCTION CAPACITANCE**



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

