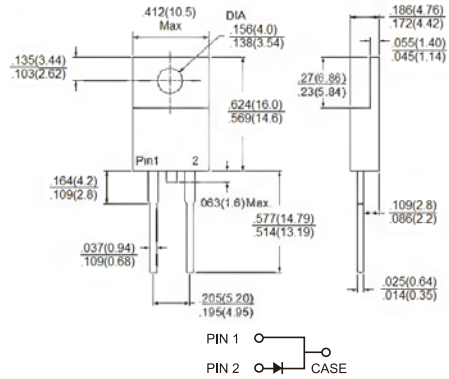


# HERA1601G - HERA1608G

16.0 AMPS. Glass Passivated High Efficient Rectifiers



## TO-220AC



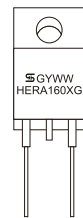
Dimensions in inches and (millimeters)

## 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: TO-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 .16",(4.06mm) from case.
- ◇ Weight: 2.24 grams



Marking Diagram

- HERA160XG = 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	HERA 1601G	HERA 1602G	HERA 1603G	HERA 1604G	HERA 1605G	HERA 1606G	HERA 1607G	HERA 1608G	Units
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	210	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current @T <sub>c</sub> =100 °C	IF(AV)	16								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	IFSM	250								A
Maximum Instantaneous Forward Voltage @16.0A	VF	1.0		1.3		1.7			V	
Maximum DC Reverse Current at Rated DC Blocking Voltage @T <sub>A</sub> =25 °C ( Note 1 ) @ T <sub>A</sub> =125 °C	IR	10 400								uA uA
Maximum Reverse Recovery Time ( Note 4 )	Trr	50				80			nS	
Typical Junction Capacitance ( Note 2 )	Cj	120				80			pF	
Typical Thermal Resistance (Note 3)	RθJC	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

- Notes: 1. Pulse Test with PW=300 usec,1% Duty Cycle  
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0V D. C.  
3. Mounted on Heatsink Size of 2 in x 3 in x 0.25 in Al-Plate.  
4. Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A

## RATINGS AND CHARACTERISTIC CURVES (HERA1601G THRU HERA1608G)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

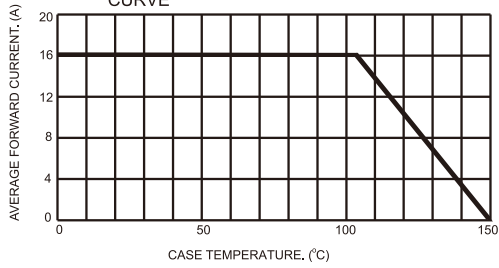


FIG.2- TYPICAL REVERSE CHARACTERISTICS

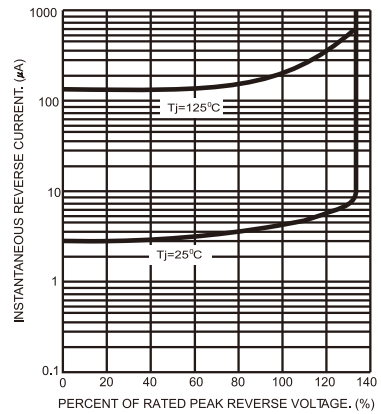


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

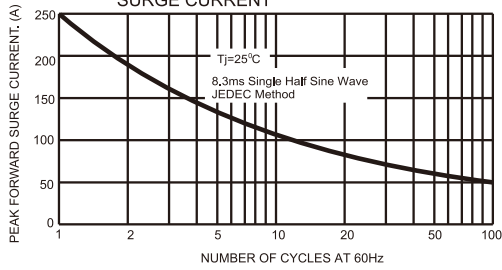


FIG.5- TYPICAL FORWARD CHARACTERISTICS

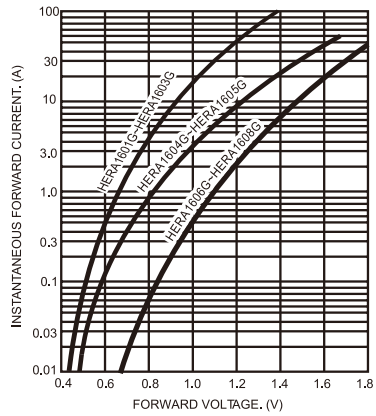


FIG.4- TYPICAL JUNCTION CAPACITANCE

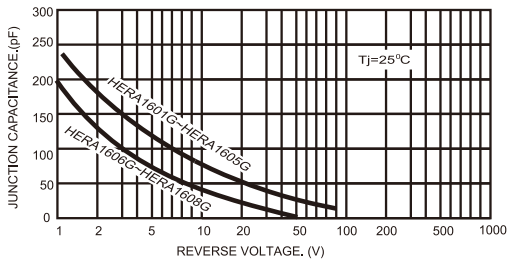


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

