



HER1601G - HER1608G

16.0 AMPS. Glass Passivated High Efficient Rectifiers

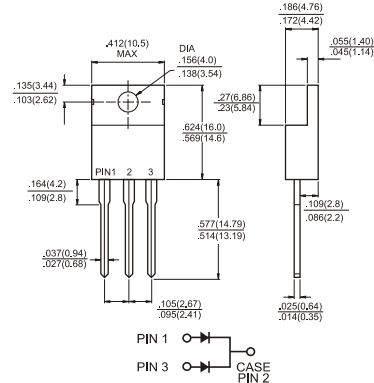
TO-220AB

Features

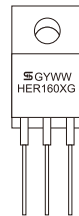
- ◇ UL Recognized File # E-326243
- ◇ Glass passivated chip junction.
- ◇ High efficiency, Low VF
- ◇ High current capability
- ◇ High reliability
- ◇ High surge current capability
- ◇ For use in low voltage, high frequency inverter, free wheeling, and polarity protection application.
- ◇ Green compound with suffix "G" on packing code & prefix "G" on datecode.

Mechanical Data

- ◇ Cases: TO-220AB molded plastic
- ◇ Epoxy: UL 94V0 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



Dimensions in inches and (millimeters)



Marking Diagram

HER160XG = 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	HER 1601G	HER 1602G	HER 1603G	HER 1604G	HER 1605G	HER 1606G	HER 1607G	HER 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 _C =100 °C	IF(AV)	16.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	IFSM	125								A
Maximum Instantaneous Forward Voltage @8.0A	VF	1.0			1.3		1.7			V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T _A =25 °C (Note 1) @ T _A =125 °C	IR	10 400								uA uA
Typical Reverse Recovery Time (Note 4)	Trr	50					80			nS
Typical Junction Capacitance (Note 2)	Cj	80					50			pF
Typical Thermal Resistance (Note 3)	RθJC	1.5								°C/W
Operating Temperature Range	TJ	-65 to +150								°C
Storage Temperature Range	TSTG	-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 4 in x 6 in x 0.25 in Al-Plate.
4. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

RATINGS AND CHARACTERISTIC CURVES (HER1601G THRU HER1608G)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

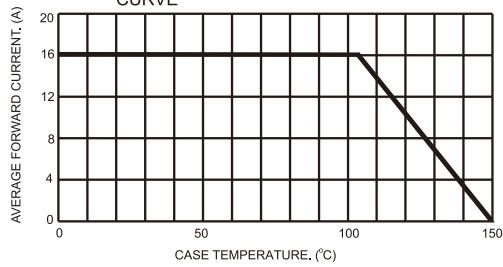


FIG.2- TYPICAL REVERSE CHARACTERISTICS PER LEG

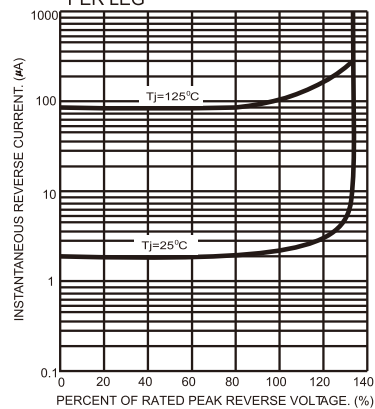


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

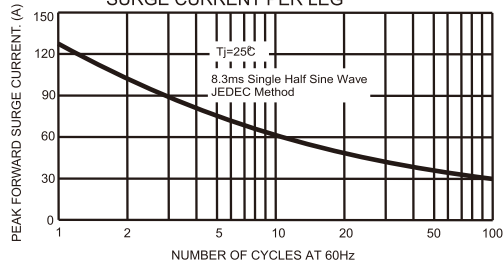


FIG.5- TYPICAL FORWARD CHARACTERISTICS PER LEG

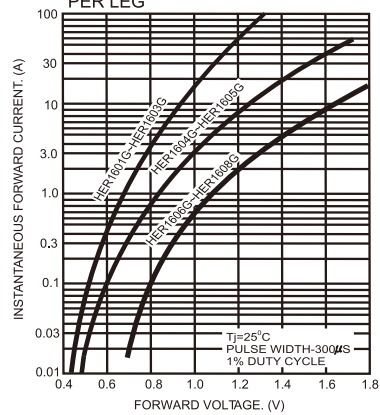


FIG.4- TYPICAL JUNCTION CAPACITANCE PER LEG

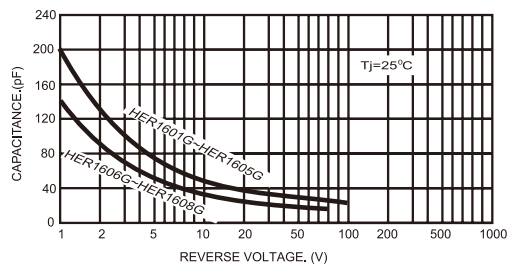


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

