

Features

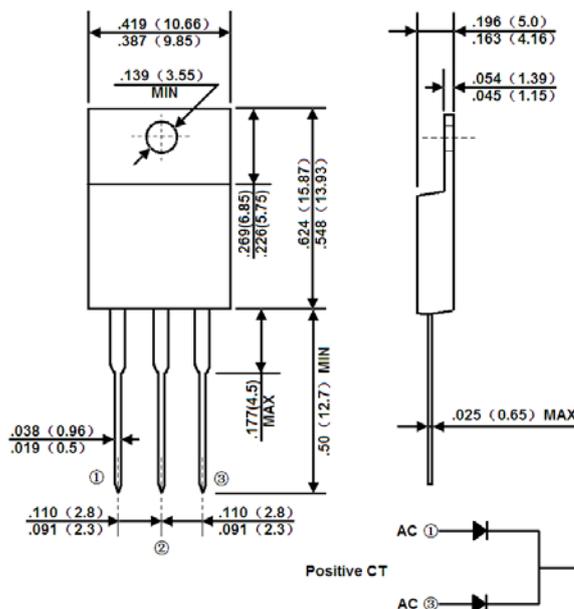
- * Glass passivated chip junction
- * High efficiency, low VF
- * High current capability
- * High Reliability
- * High Surge Current Capability
- * For use in low voltage, high frequency inverter, free wheeling, and polarity protection application



RoHS
COMPLIANT

Package Outline Dimensions in inches (millimeters)

TO-220AB:



Mechanical Data

- * Cases: TO-220AB 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: 270°C/10 seconds/ 0.16", (4.06mm) from case

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	Unit	
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 D.C Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	1000	V	
Maximum Average Forward Rectified Current	$I_{F(AV)}$	16								A	
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	125								A	
Maximum Instantaneous Forward Voltage (Note 1) @ 8 A	V_F	1.0			1.3		1.7			V	
Maximum D.C Reverse Current @ $T_A=25^\circ\text{C}$ at Rated D.C Blocking Voltage @ $T_A=125^\circ\text{C}$	I_R	10 400								μA	
Maximum Reverse Recovery Time (Note 2)	T_{rr}	50					80				nS
Typical Junction Capacitance (Note 3)	C_j	80					50				pF
Typical Thermal Resistance	$R_{\theta JC}$	1.5								$^\circ\text{C/W}$	
Operating and Storage Temperature Range	T_J/T_{STG}	-55 to +150								$^\circ\text{C}$	

Note:1、 Pulse Test with PW=300 usec, 1% Duty Cycle 2、 Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $IRR=0.25\text{A}$
3、 Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

Ratings and Characteristic Curves

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

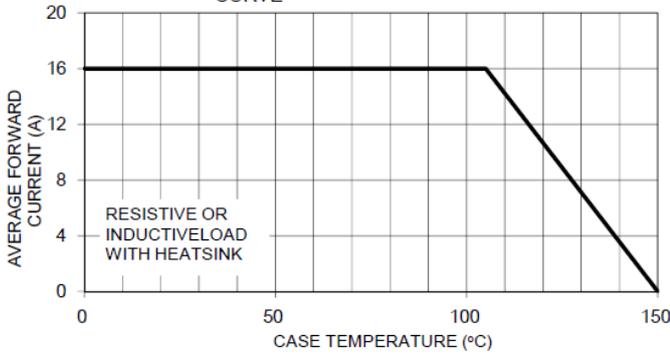


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

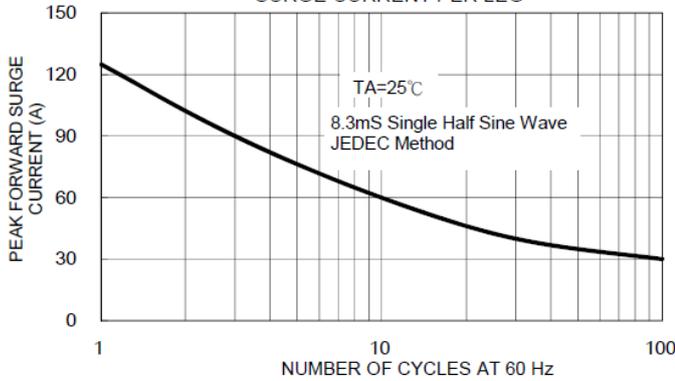


FIG. 4- TYPICAL JUNCTION CAPACITANCE PER LEG

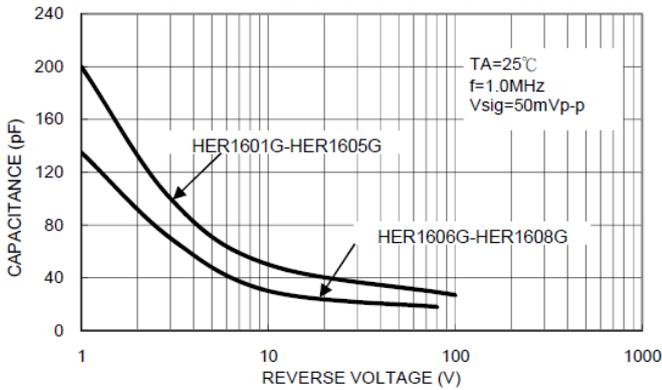


FIG. 2- TYPICAL REVERSE CHARACTERISTICS PER LEG

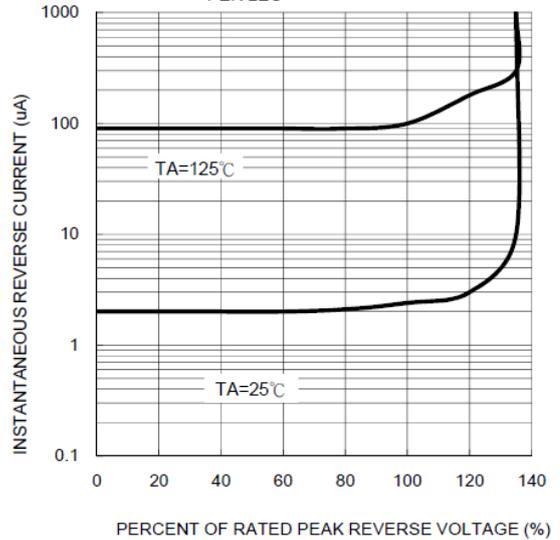


FIG. 5- TYPICAL FORWARD CHARACTERISTICS PER LEG

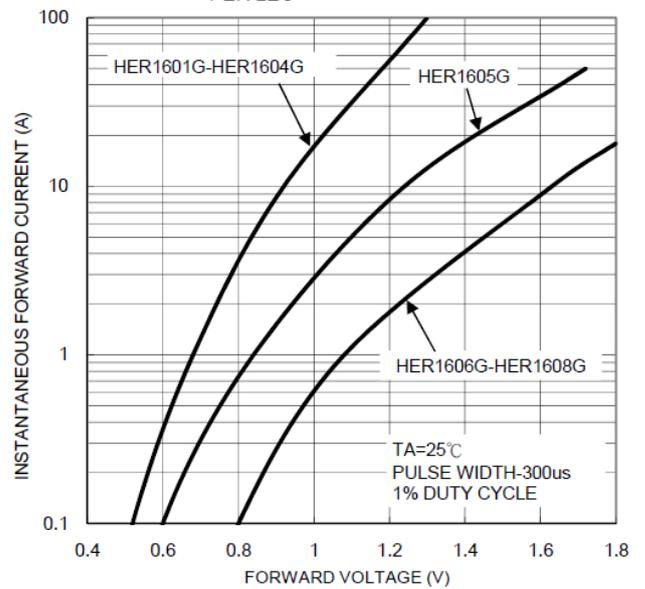
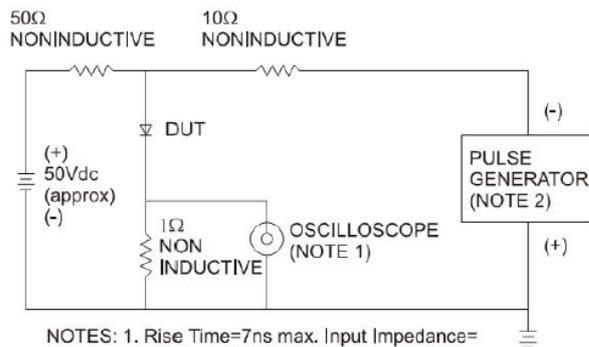
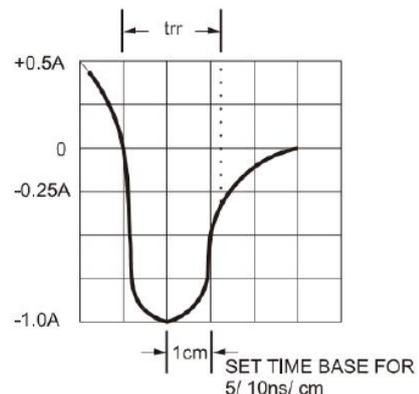


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



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





HER1601G THRU HER1608G

Glass Passivated High Efficient Rectifiers

Ordering Information

Part No.	Package	Packing
HER1601G~HER1608G	TO-220AB	50pcs/Tube