



# HER1601G THRU HER1608G

**16.0 AMPS. GLASS PASSIVATED  
HIGH EFFICIENT RECTIFIERS**

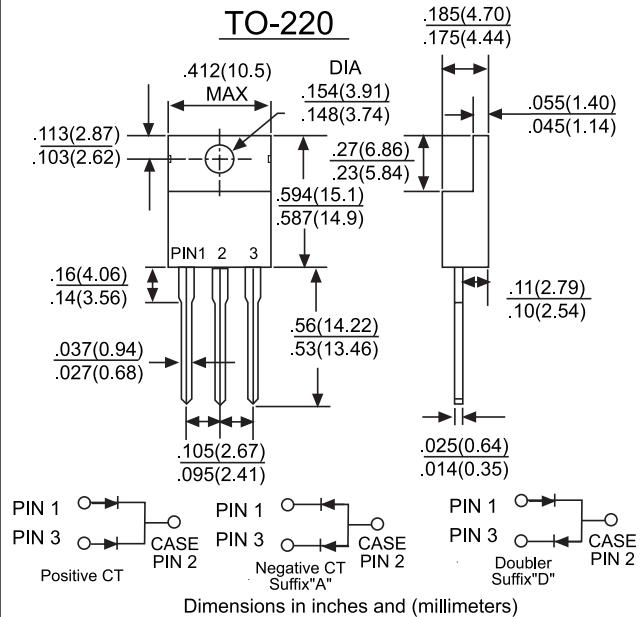
**Voltage Range  
50 to 1000 Volts  
Current  
16.0 Amperes**

**Features**

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

**Mechanical Data**

- Cases: TO-220 molded plastic
- Epoxy: UL 94V-O rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: As marked
- High temperature soldering guaranteed: 250°C/10 seconds/.16", (4.06mm) from case.
- Weight: 2.24 grams



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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

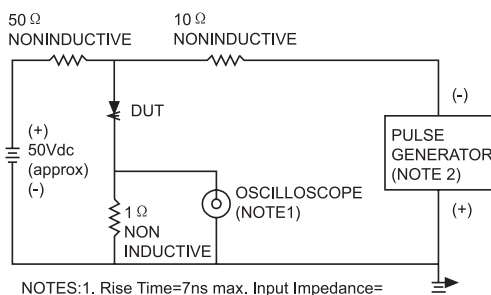
Type Number		HER 1601G	HER 1602G	HER 1603G	HER 1604G	HER 1605G	HER 1606G	HER 1607G	HER 1608G	UNITS
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	210	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length @T <sub>A</sub> = 55°C	I <sub>F(AV)</sub>	16.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I <sub>FSM</sub>	125								A
Maximum Instantaneous Forward Voltage @6.0A	V <sub>F</sub>	1.0				1.3	1.7			V
Maximun DC Reverse Current @ T <sub>A</sub> = 25°C at Rated DC Blocking Voltage @ T <sub>A</sub> = 100°C	I <sub>R</sub>					10.0	400			uA uA
Maximum Reverse Recovery Time (Note 1)	T <sub>RR</sub>	50				80			nS	
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	80				50			pF	
Typical Thermal Resistance (Note 3)	R <sub>θJC</sub>	3.0								°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to+150								°C
Storage Temperature Range	T <sub>STG</sub>	-55 to+150								°C

NOTES: 1. Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A  
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.  
3. Thermal Resistance from Junction to Case per Leg Mounted on Heatsink.

# RATING AND CHARACTERISTIC CURVES HER1601G THRU HER1608G



FIG.1- REVERSE RECOVER 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

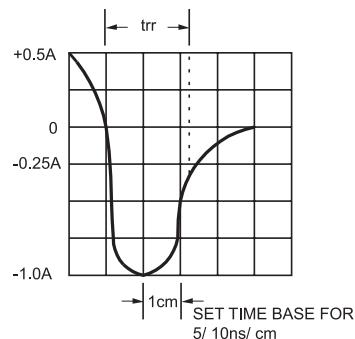


FIG.2-MAXIMUM FORWARD CURRENT DERATING CURVE

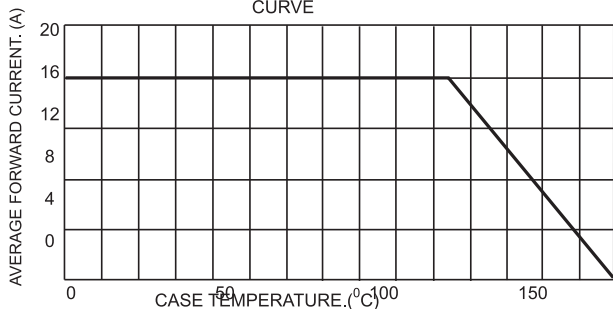


FIG.3-TYPICAL REVERSE CHARACTERISTICS PER LEG

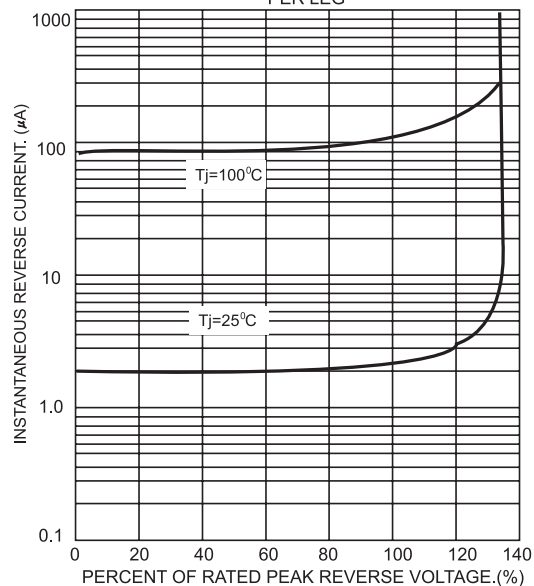


FIG.5-MAXIMUM NON-REPETITIVE SURGE CURRENT

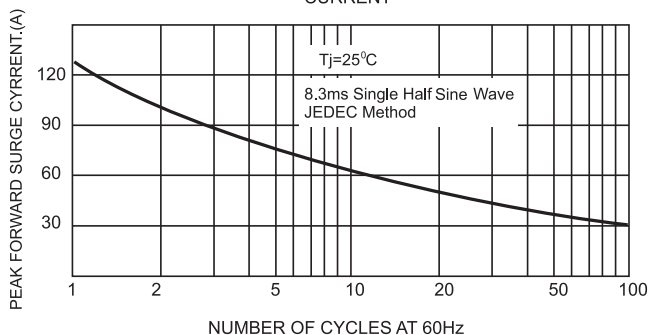


FIG.6-TYPICAL FORWARD CHARACTERISTICS PER LEG

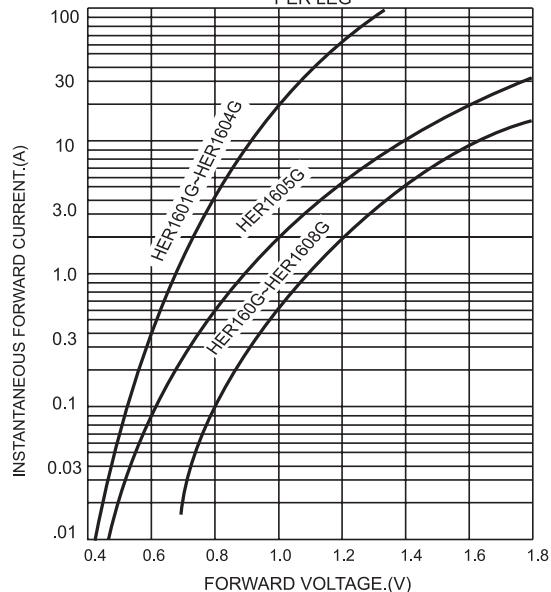


FIG.5-TYPICAL JUNCTION CAPACITANCE PER LEG

