

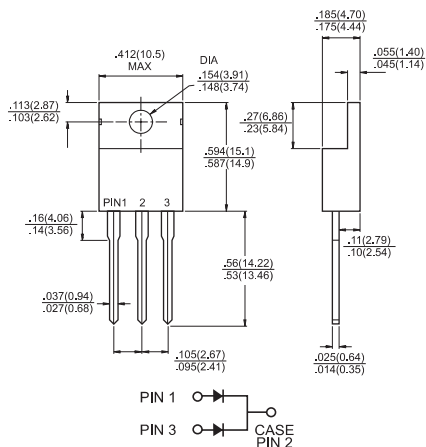


### Features

- ✧ 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.

### Mechanical Data

- ✧ Case: 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)

### Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

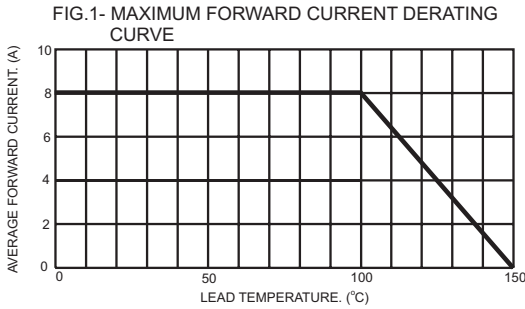
Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

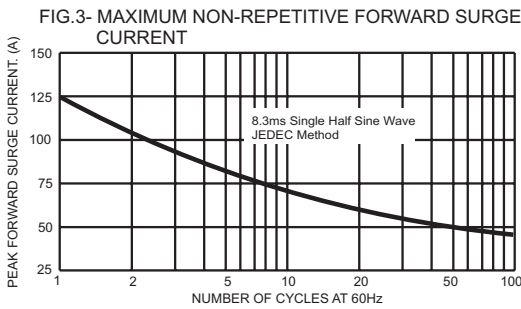
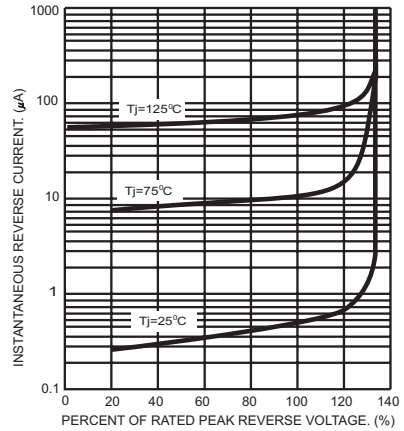
Type Number	Symbol	HER	HER	HER	HER	HER	HER	HER	HER	Units
		0801G	0802G	0803G	0804G	0805G	0806G	0807G	0808G	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	210	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current @ $T_C = 100^\circ\text{C}$	$I_{(AV)}$	8.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	125								A
Maximum Instantaneous Forward Voltage @ 4.0A	$V_F$	1.0			1.3		1.7			V
Maximum DC Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$	$I_R$	10 400								uA uA
Maximum Reverse Recovery Time ( Note 1 )	$T_{rr}$	50			80					nS
Typical Junction Capacitance ( Note 2 )	$C_j$	80			50					pF
Typical Thermal Resistance ( Note 3 )	$R_{\theta JC}$	3.0								°C/W
Operating Temperature Range	$T_J$	-65 to +150								°C
Storage Temperature Range	$T_{STG}$	-65 to +150								°C

- Notes:
1. Reverse Recovery Test Conditions:  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{RR} = 0.25\text{A}$
  2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.
  3. Mounted on Heatsink Size of 2 in x 3 in x 0.25 in Al-Plate..

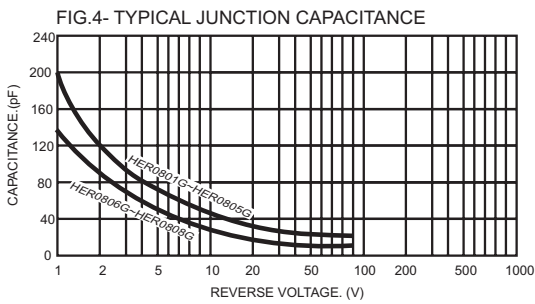
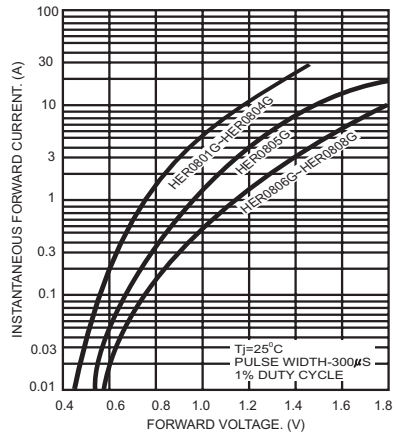
## RATINGS AND CHARACTERISTIC CURVES (HER0801G THRU HER0808G)



**FIG.2- TYPICAL REVERSE CHARACTERISTICS**



**FIG.5- TYPICAL FORWARD CHARACTERISTICS**



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

