

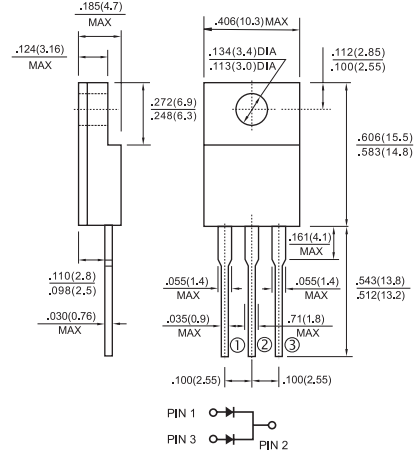


## Features

- ✦ 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: ITO-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/ 0.25" (6.35mm) from case for 10 seconds.
- ✦ Mounting torque: 5 in – 1bs. max.
- ✦ 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	HERF	HERF	HERF	HERF	HERF	HERF	HERF	HERF	Units
		1001G	1002G	1003G	1004G	1005G	1006G	1007G	1008G	
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 @ $T_C = 100^\circ C$	$I_{(AV)}$	10								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 @ 5.0A	$V_F$	1.0			1.3		1.7			V
Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=125^\circ C$	$I_R$	10 400								uA uA
Maximum Reverse Recovery Time ( Note 1 )	$T_{rr}$	50					80			nS
Typical Junction Capacitance ( Note 2 )	$C_j$	60					40			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:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$
  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 (HERF1001G THRU HERF1008G)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

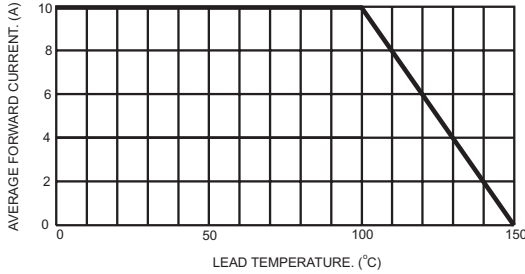


FIG.2- TYPICAL REVERSE CHARACTERISTICS

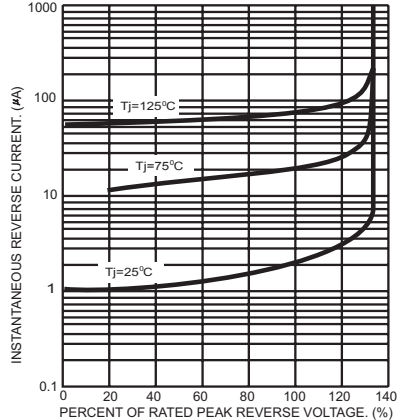


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

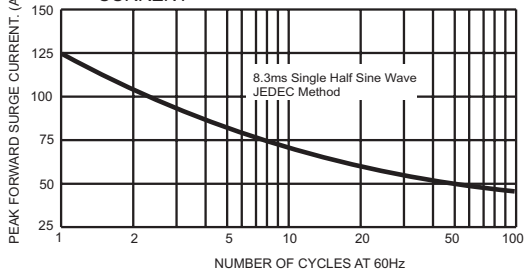


FIG.5- TYPICAL FORWARD CHARACTERISTICS

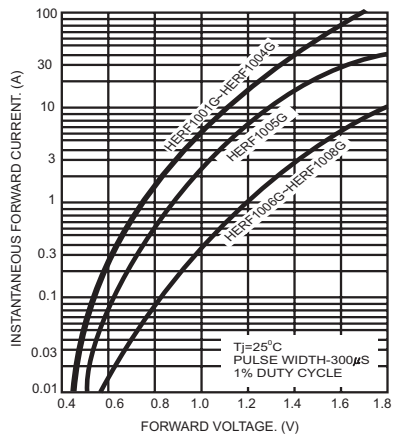


FIG.4- TYPICAL JUNCTION CAPACITANCE

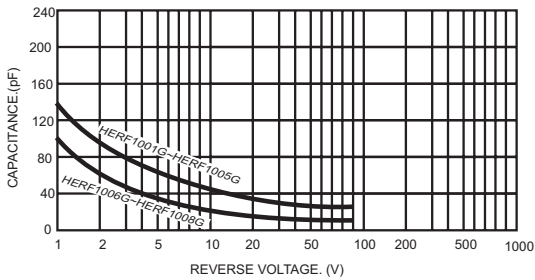


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

