



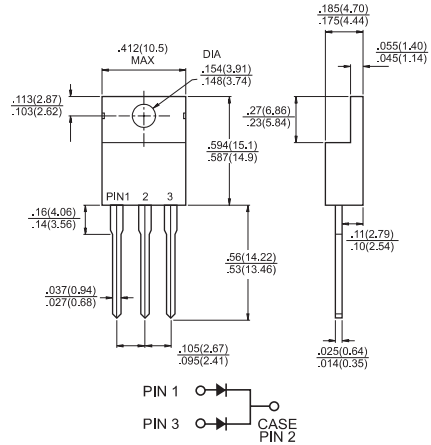
TO-220AB

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
- ✧ 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 0801G	HER 0802G	HER 0803G	HER 0804G	HER 0805G	HER 0806G	HER 0807G	HER 0808G	Units
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								$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	-65 to +150								$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to +150								$^\circ\text{C}$

- 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.1- MAXIMUM FORWARD CURRENT DERATING CURVE

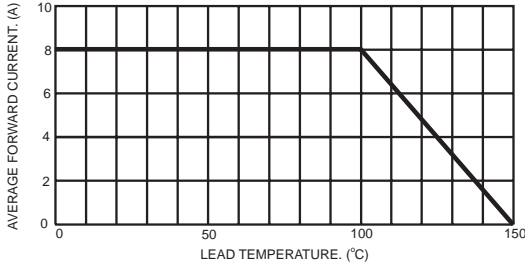


FIG.2- TYPICAL REVERSE CHARACTERISTICS

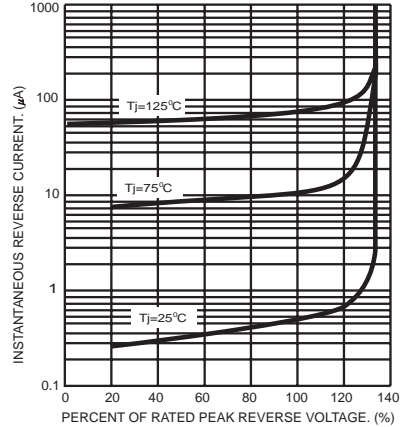


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

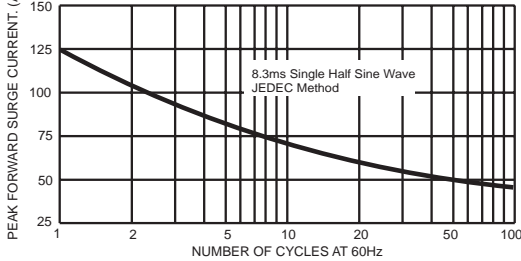


FIG.5- TYPICAL FORWARD CHARACTERISTICS

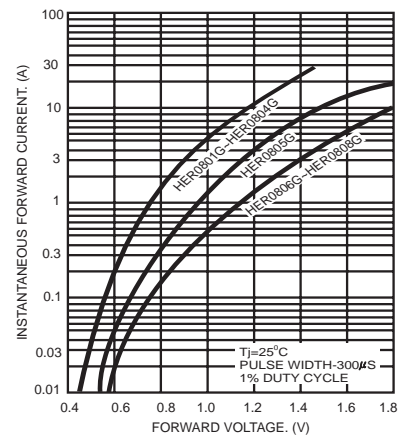


FIG.4- TYPICAL JUNCTION CAPACITANCE

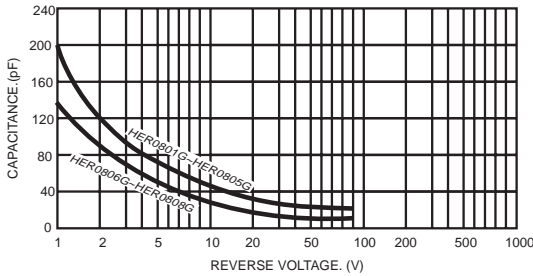
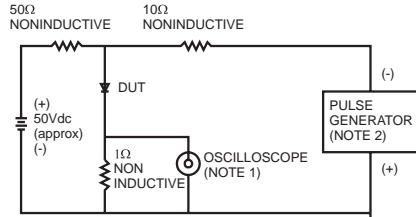


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



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

