Pb Free Plating Product

HER1001GD thru HER1008GD

10.0 Ampere Heatsink Dual Doubler Tandem High Efficiency Rectifiers

Features

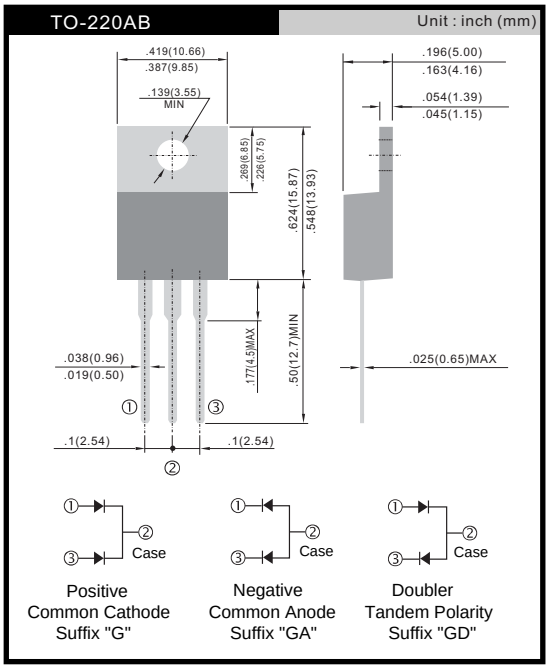
- ✶ Fast switching for high efficiency
- ✶ Low forward voltage drop
- ✶ High current capability
- ✶ Low reverse leakage current
- ✶ High surge current capability

Application

- ✶ Automotive Inverters/Solar Inverters
- ✶ Plating Power Supply,SMPS and UPS
- ✶ Car Audio Amplifiers and Sound Device Systems

Mechanical Data

- ✶ Case: Heatsink TO-220AB
- ✶ Epoxy: UL 94V-0 rate flame retardant
- ✶ Terminals: Solderable per MIL-STD-202 method 208
- ✶ Polarity: As marked on diode body
- ✶ Mounting position: Any
- ✶ Weight: 2.1 gram approxiamtely



Maximum Ratings and Electrical Characteristics

Rating at 25 ℃ 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 1001GD	HER 1002GD	HER 1003GD	HER 1004GD	HER 1005GD	HER 1006GD	HER 1007GD	HER 1008GD	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	$I_{F(AV)}$	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 (Note 1) @ 5 A	V_F	1.0				1.3	1.7			V
Maximum DC Reverse Current @ T_A=25 ℃ at Rated DC Blocking Voltage @ T_A=125 ℃	I_R	10 400								uA uA
Maximum Reverse Recovery Time (Note 2)	Trr	50					80			nS
Typical Junction Capacitance (Note 3)	Cj	60					40			pF
Typical Thermal Resistance	$R_{\theta JC}$	1.5								℃/W
Operating Temperature Range	T_J	- 65 to + 150								℃
Storage Temperature Range	T_{STG}	- 65 to + 150								℃

Note 1: Pulse Test with PW=300 usec, 1% Duty Cycle
Note 2: Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A
Note 3: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

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RATINGS AND CHARACTERISTIC CURVES (HER1001GD thru HER1008GD)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

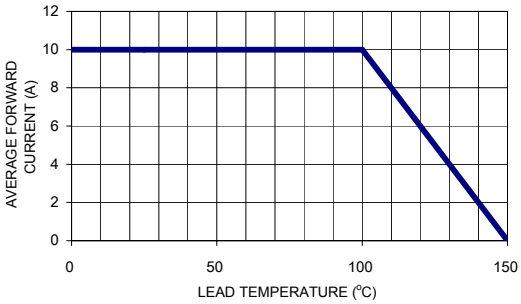


FIG. 2- TYPICAL REVERSE CHARACTERISTICS

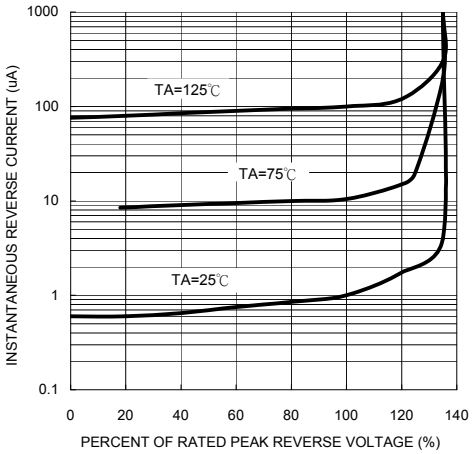


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

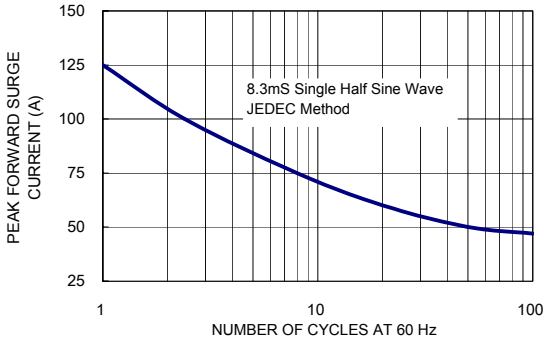


FIG. 5- TYPICAL FORWARD CHARACTERISRICS

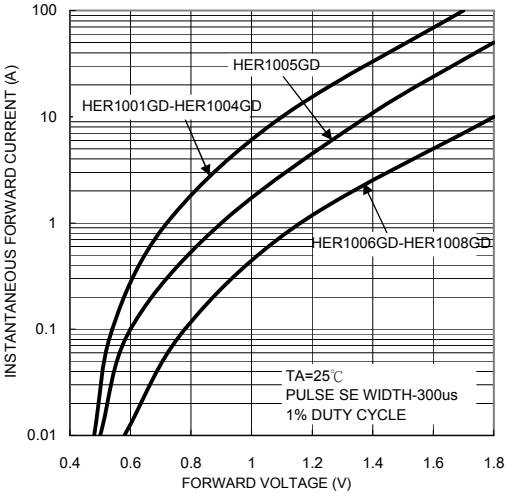


FIG. 4- TYPICAL JUNCTION CAPACITANCE

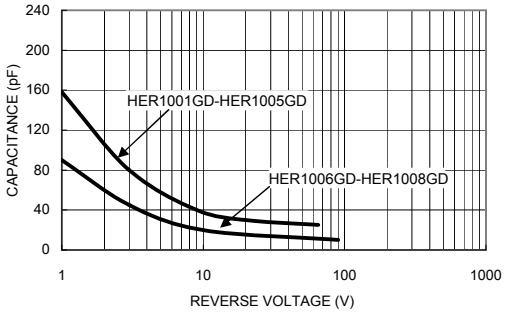
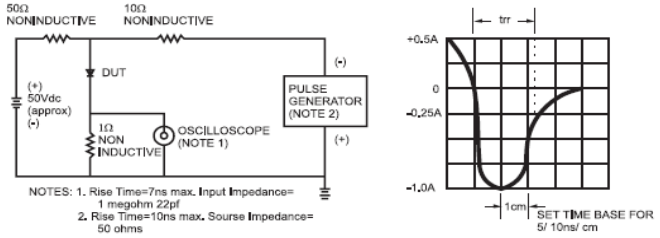


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



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