HER801 THRU HER808

GLASS PASSIVATED HIGH EFFICIENCY RECTIFIER



REVERSE VOLTAGE: 50 to 1000 VOLTS FORWARD CURRENT: 8.0 AMPERE

FEATURES

Plastic package has Underwriters Laboratory
 Flammability Classification 94V-O ctilizing
 Flame Retardant Epoxy Molding Compound.

- · Low power loss, high efficiency.
- · Low forward voltage, high current capability
- · High surge capacity.
- · Ultra fast recovery times, high voltage.
- · Exceeds environmental standards of MIL-S-19500/228

MECHANICAL DATA

Case: Molded plastic, TO-220A

Epoxy: UL 94V-O rate flame retardant

Terminals: Leads solderable per MIL-STD-202

method 208 guaranteed Polarity: As marked Mounting position: Any Weight: 0.08ounce, 2.24gram

.413 (10.5) .153 (3.9) .148 (3.8) .053 (1.3) .047 (1.2) .270 (6.9) .022 (0.56) .583 (14.8) .035 (0.9) .028 (0.7) .102 (2.6) .091 (2.3) .035 (0.9) .022 (0.56) .091 (2.3) .035 (0.9) .022 (0.56) .091 (2.3) .035 (0.9) .022 (0.56) .091 (2.3) .035 (0.9) .022 (0.56) .091 (2.3) .035 (0.9) .022 (0.56) .091 (2.3) .035 (0.9) .022 (0.56) .091 (2.3) .035 (0.9) .022 (0.56) .091 (2.3) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .035 (0.9) .

TO-220A

Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

	Symbols	HER801	HER802	HER803	HER804	HER805	HER806	HER807	HER808	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	1000	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	210	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	300	400	600	800	1000	Volts
Maximum Average Forward Rectified Current .375''(9.5mm) Lead Length at T_C =100°C	I _(AV)	8.0								Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave	I_{FSM}	150								Amp
superimposed on rated load (JEDEC method)										
Maximum Forward Voltage at 8.0A and T _A =25℃	$V_{\rm F}$	1.0			1	1.3		1.7		Volts
Maximum Reverse Current at T _A =25℃	I_R	10.0								uAmp
at Rated DC Blocking Voltage $T_A=125$ °C	-K	250								
Typical Junction Capacitance (Note 1)	C_{J}	80 50						pF		
Maximum Reverse Recovery Time (Note 2)	T _{RR}	50 80						nS		
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	3							°C/W	
Operating and Storage Temperature Range	T _J , Tstg	-55 to +150								Ç

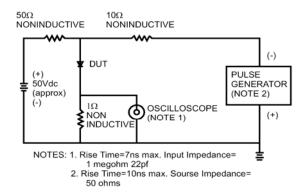
NOTES:

- 1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- 2- Reverse Recovery Test Conditions: I_F =.5A, I_R =1A, I_{RR} =.25A.
- 3- Thermal Resistance from Junction to Case Mounted on Heatsink.



RATINGS AND CHARACTERISTIC CURVES

FIG.1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



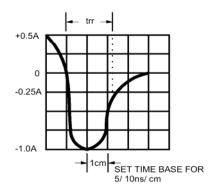


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

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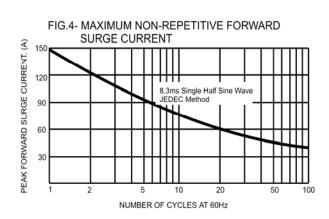
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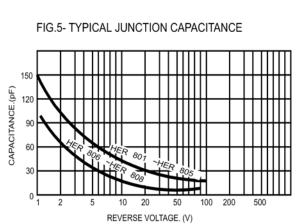
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16

CASE TEMPERATURE. (°C)







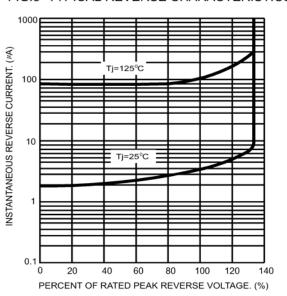


FIG.6- TYPICAL FORWARD CHARACTERISTICS

