



HIGH EFFICIENCY GLASS PASSIVATED RECTIFIER

HERF801 THRU HERF807

VOLTAGE RANGE

50 to 1000 Volts

CURRENT

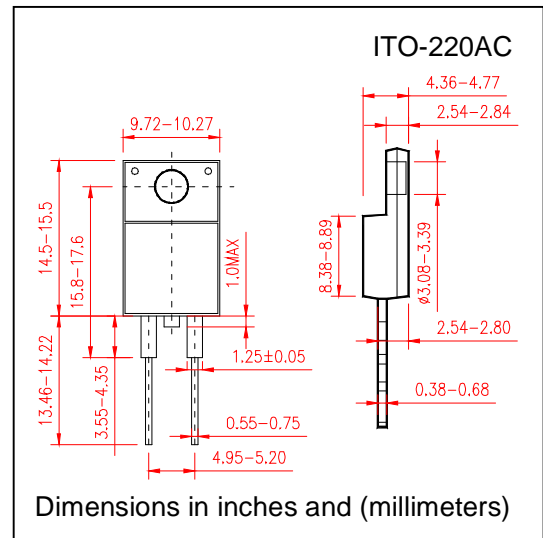
8.0 Ampere

FEATURES

- Glass passivated chip junction
- Low power loss, high efficiency
- Low leakage
- High speed switching
- High current capacity, high surge capacity
- High temperature soldering guaranteed
- 200°C/10 second, 0.16”(4.06mm) lead length from case
- Also available in isolated package under part number HER801

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Color Band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.08 ounce, 2.24 gram



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	HERF 801	HERF 802	HERF 803	HERF 804	HERF 805	HERF 806	HERF 807	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	560	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	Volts
Maximum Average Forward Rectified Current At $T_c=105^\circ\text{C}$	$I_{(AV)}$	8.0							Amps
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	125							Amps
Maximum Instantaneous Forward Voltage at 8.0A	V_F	1.0		1.3		1.5	1.7		Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	I_R	$T_A = 25^\circ\text{C}$							μA
		$T_A = 125^\circ\text{C}$							
Maximum Reverse Recovery Time Test conditions $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$	t_{rr}	70					100		nS
Typical Junction Capacitance (Note 2)	C_J	40							pF
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	3.0							$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	(-55 to +150)							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	(-55 to +150)							$^\circ\text{C}$

NOTES:

1. Unit mounted on heatsink
2. Measured at 1.0MHz and applied reverse voltage of 4.0V



HIGH EFFICIENCY GLASS PASSIVATED RECTIFIER

HERF801 THRU HERF807

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 8.0 Ampere

RATING AND CHARACTERISTIC CURVES HERF801 THRU HERF807

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

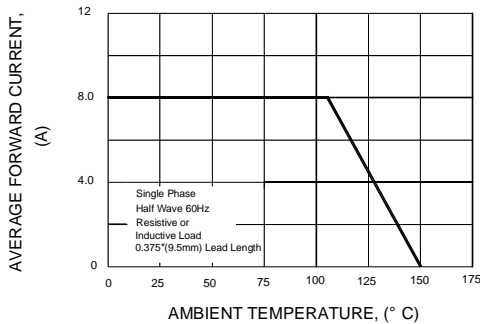


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

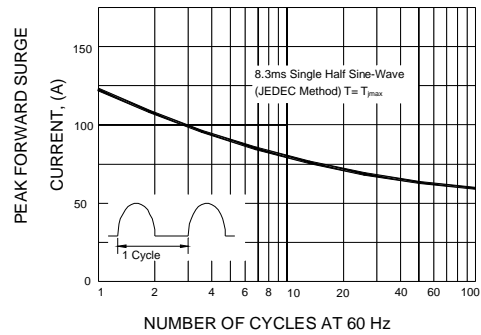


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

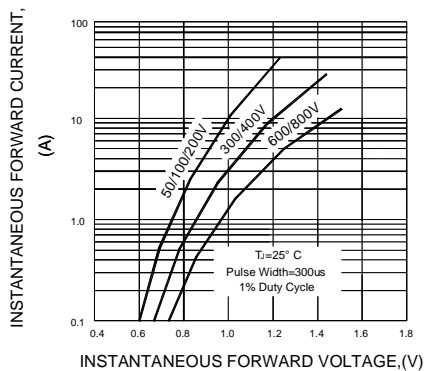


FIG.4-TYPICAL REVERSE CHARACTERISTICS

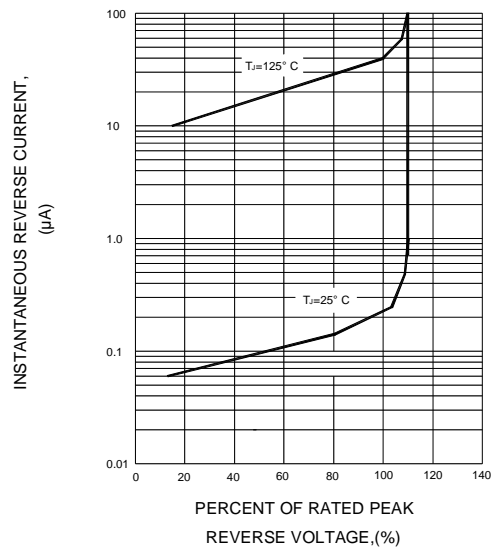


FIG.5-TYPICAL JUNCTION CAPACITANCE

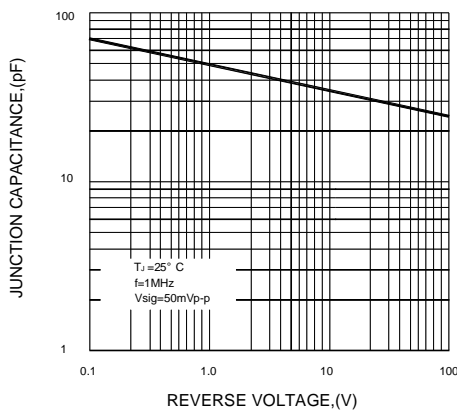
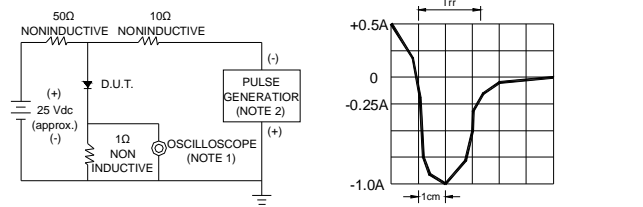


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES : 1. Rise Time = 7ns max. Input Impedance = 1 magohm, 22pF
2. Rise time = 10ns max. Source Impedance = 50 ohms