



HIGH EFFICIENCY GLASS PASSIVATED RECTIFIER

HERF801 THRU HERF807

VOLTAGE RANGE

50 to 1000 Volts

CURRENT

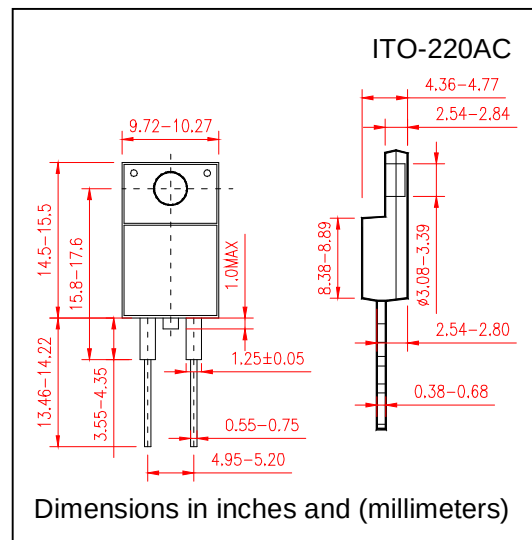
8.0 Ampere

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 Tc=105℃		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	T _A = 25℃	I _R	10							μA
	T _A = 125℃		500							
Maximum Reverse Recovery Time Test conditions I _F =0.5A, I _R =1.0A, I _{RR} =0.25A		t _{rr}	70					100		nS
Typical Junction Capacitance (Note 2)		C _J	40							pF
Typical Thermal Resistance (Note 1)		R _{θJC}	3.0							℃/W
Operating Junction Temperature Range		T _J	(-55 to +150)							℃
Storage Temperature Range		T _{STG}	(-55 to +150)							℃

NOTES:

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



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RATING AND CHARACTERISTIC CURVES HERF801 THRU HERF807

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

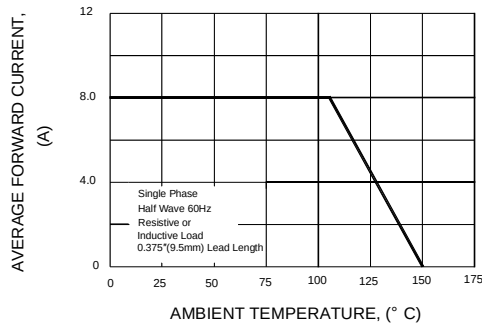


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

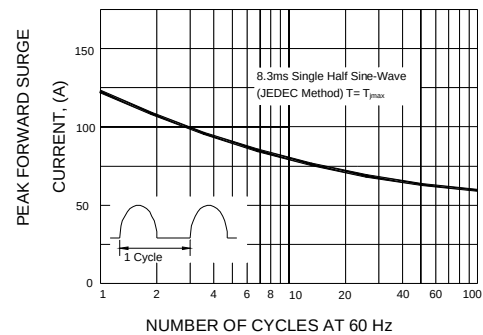


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

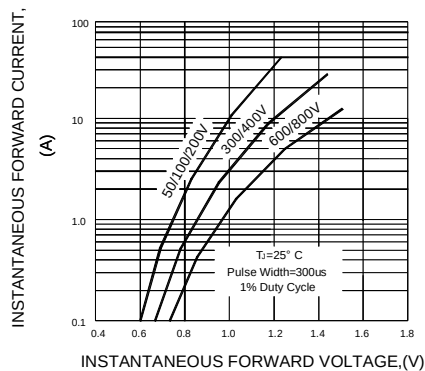


FIG.4-TYPICAL REVERSE CHARACTERISTICS

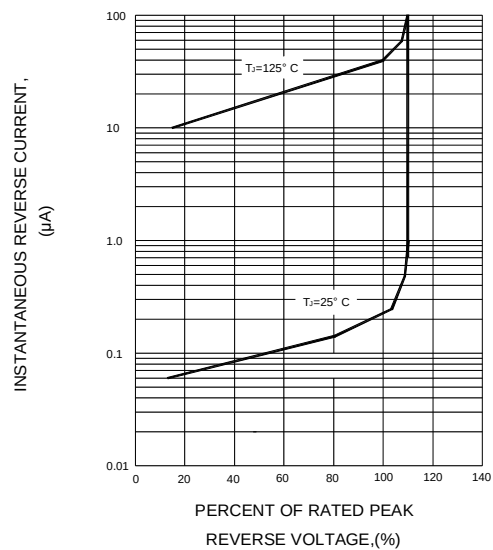


FIG.5-TYPICAL JUNCTION CAPACITANCE

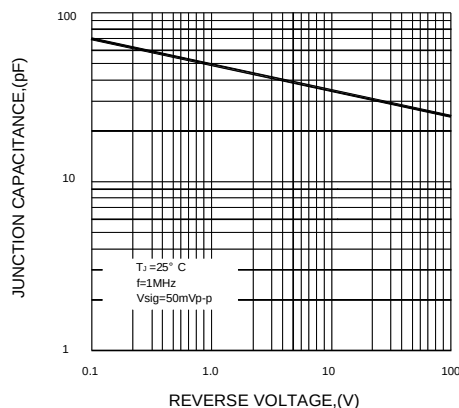
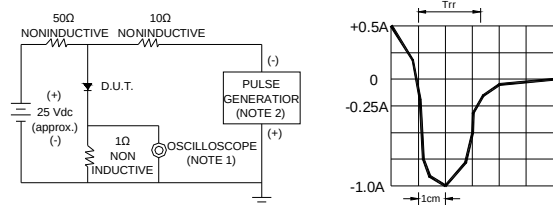


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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

SET TIME BASE FOR 50/100ns/cm