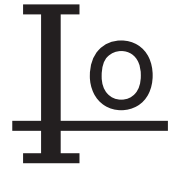


# HER801 THRU HER806

8.0 AMP HIGH EFFICIENCY RECTIFIERS



## FEATURES

- \* Low forward voltage drop
- \* High current capability
- \* High reliability
- \* High surge current capability
- \* High speed switching

## MECHANICAL DATA

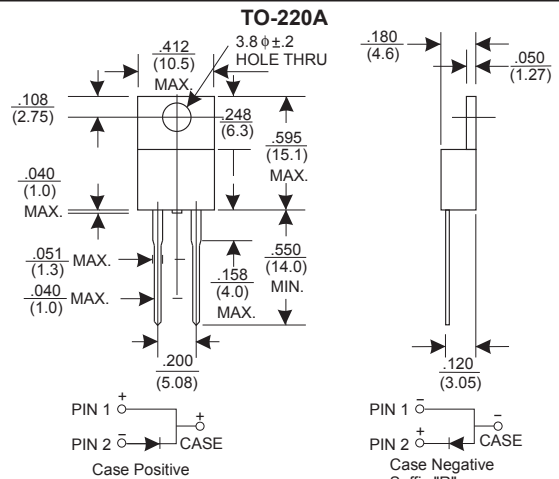
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: As Marked
- \* Mounting position: Any
- \* Weight: 2.24 grams

## VOLTAGE RANGE

50 to 600 Volts

## CURRENT

8.0 Ampere



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| TYPE NUMBER                                                                                           | HER801     | HER802 | HER803 | HER804 | HER805 | HER806 | UNITS |
|-------------------------------------------------------------------------------------------------------|------------|--------|--------|--------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                                | 50         | 100    | 200    | 300    | 400    | 600    | V     |
| Maximum RMS Voltage                                                                                   | 35         | 70     | 140    | 210    | 280    | 420    | V     |
| Maximum DC Blocking Voltage                                                                           | 50         | 100    | 200    | 300    | 400    | 600    | V     |
| Maximum Average Forward Rectified Current<br>.375"(9.5mm) Lead Length at Tc=75°C                      | 8.0        |        |        |        |        |        | A     |
| Peak Forward Surge Current, 8.3 ms single half sine-wave<br>superimposed on rated load (JEDEC method) | 150        |        |        |        |        |        | A     |
| Maximum Instantaneous Forward Voltage at 8.0A                                                         | 1.0        |        | 1.3    |        | 1.85   |        | V     |
| Maximum DC Reverse Current Tc=25°C                                                                    | 10.0       |        |        |        |        |        | μA    |
| at Rated DC Blocking Voltage Tc=100°C                                                                 | 200        |        |        |        |        |        | μA    |
| Maximum Reverse Recovery Time (Note 1)                                                                | 60         |        |        |        |        | 100    | nS    |
| Typical Junction Capacitance (Note 2)                                                                 | 65         |        |        |        |        |        | pF    |
| Operating and Storage Temperature Range Tj, Tstg                                                      | -55 — +150 |        |        |        |        |        | °C    |

### NOTES:

- Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
- Measured at 1MHz and applied reverse voltage of 4.0V D.C.

# RATING AND CHARACTERISTIC CURVES (HER801 THRU HER807)

FIG. 1-TYPICAL FORWARD CHARACTERISTICS

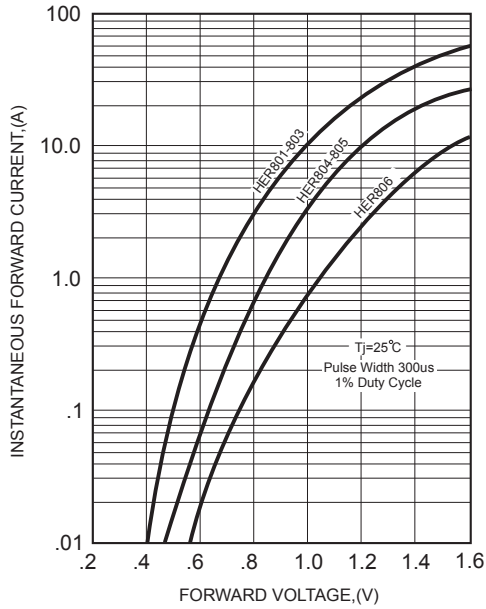


FIG. 2-TYPICAL FORWARD CURRENT DERATING CURVE

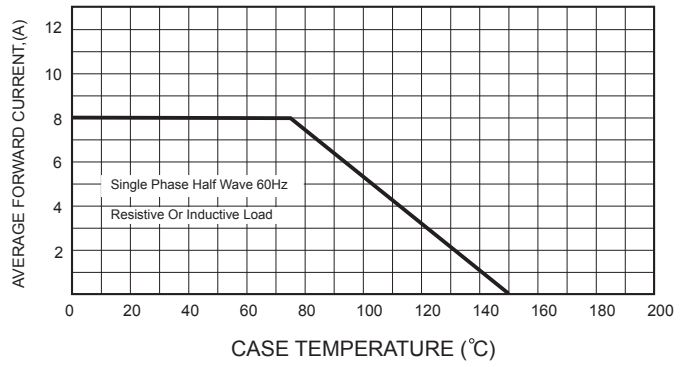


FIG. 4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

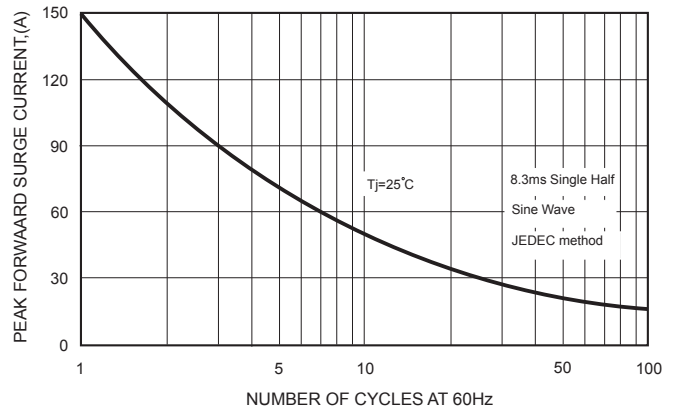
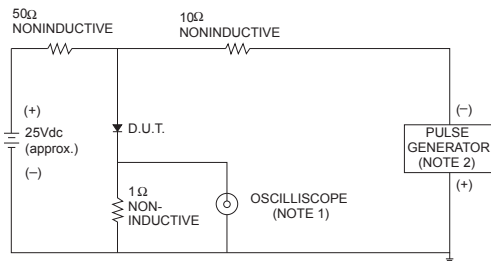


FIG. 3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

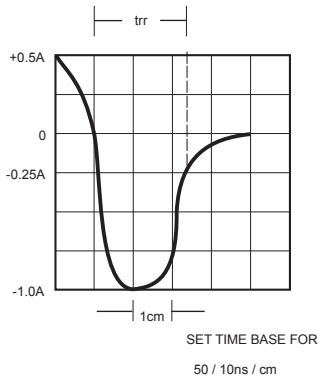


FIG. 5-TYPICAL JUNCTION CAPACITANCE

