

## HER601 THRU HER608

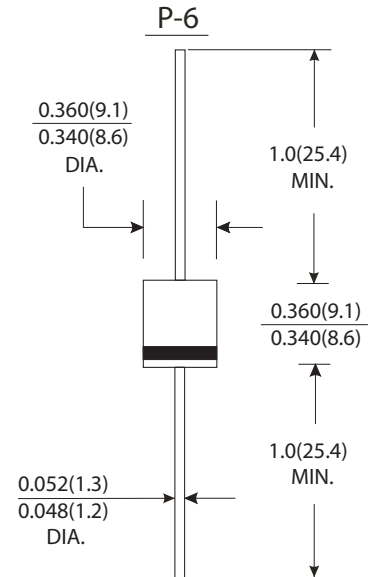
CURRENT 6.0 Amperes  
VOLTAGE 50 to 1000 Volts

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low forward voltage drop
- High current capability
- High reliability
- Low power loss, high efficiency
- High surge current capability
- High speed switching
- Low leakage

### Mechanical Data

- Case : P-6 molded plastic body
- Epoxy : UL94V-0 rate flame retardant
- Lead : Plated axial lead solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.074 ounce, 2.1 gram



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 by 20%)

|                                                                                                  | Symbols                            | HER 601                    | HER 602 | HER 603 | HER 604 | HER 605 | HER 606 | HER 607 | HER 608 | Units |
|--------------------------------------------------------------------------------------------------|------------------------------------|----------------------------|---------|---------|---------|---------|---------|---------|---------|-------|
| Maximum recurrent peak reverse voltage                                                           | V <sub>RRM</sub>                   | 50                         | 100     | 200     | 300     | 400     | 600     | 800     | 1000    | Volts |
| Maximum RMS voltage                                                                              | V <sub>RMS</sub>                   | 35                         | 70      | 140     | 210     | 280     | 420     | 560     | 700     | Volts |
| Maximum DC blocking voltage                                                                      | V <sub>DC</sub>                    | 50                         | 100     | 200     | 300     | 400     | 600     | 800     | 1000    | Volts |
| Maximum average forward rectified current 0.375"(9.5mm) lead length @ at T <sub>A</sub> =55 °C   | I <sub>(AV)</sub>                  | 6.0                        |         |         |         |         |         |         |         | Amps  |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I <sub>FSM</sub>                   | 200.0                      |         |         |         |         |         |         |         | Amps  |
| Maximum instantaneous forward voltage at 2.0A                                                    | V <sub>F</sub>                     | 1.0                        |         |         | 1.3     |         | 1.7     |         |         | Volts |
| Maximum DC reverse current at rated DC blocking voltage T <sub>A</sub> =25 °C                    | I <sub>R</sub>                     | 10.0                       |         |         |         |         |         |         |         | μA    |
| Maximum DC reverse current at rated DC blocking voltage T <sub>A</sub> =100 °C                   |                                    | 200                        |         |         |         |         |         |         |         |       |
| Maximum reverse recovery time (Note 1)                                                           | T <sub>rr</sub>                    | 50                         |         |         |         |         | 75      |         |         | ns    |
| Typical junction capacitance (Note 2)                                                            | C <sub>J</sub>                     | 100                        |         |         |         |         | 65      |         |         | pF    |
| Operating junction and storage temperature range                                                 | T <sub>J</sub><br>T <sub>STG</sub> | -65 to +125<br>-65 to +150 |         |         |         |         |         |         |         | °C    |

#### Notes:

- (1) Test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>rr</sub>=0.25A.
- (2) Measured at 1MHz and applied reverse voltage of 4.0 Volts.

## RATINGS AND CHARACTERISTIC CURVES HER601 THRU HER608

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

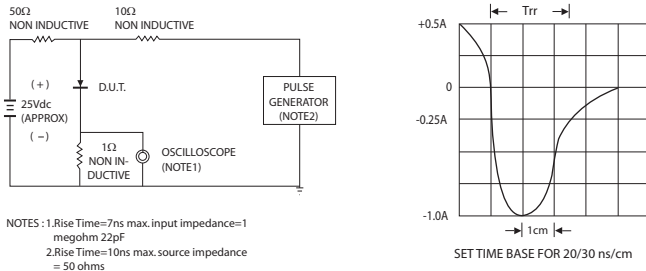


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

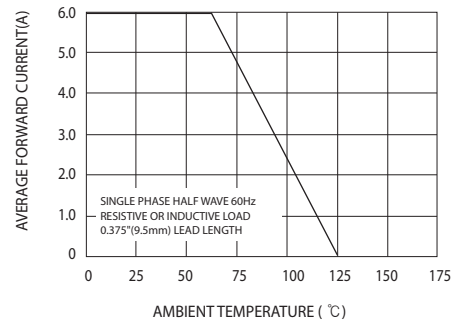


FIG.3-TYPICAL FORWARD CHARACTERISTICS

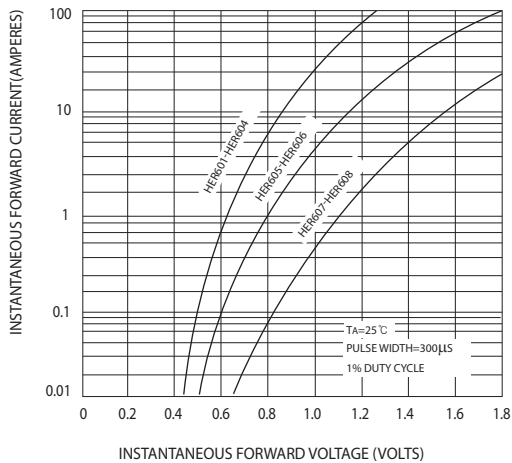


FIG.4-TYPICAL REVERSE CHARACTERISTICS

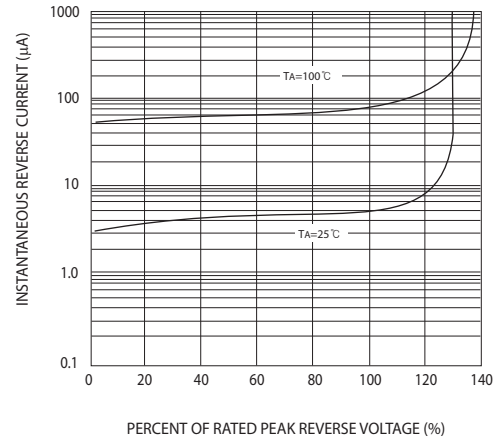


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

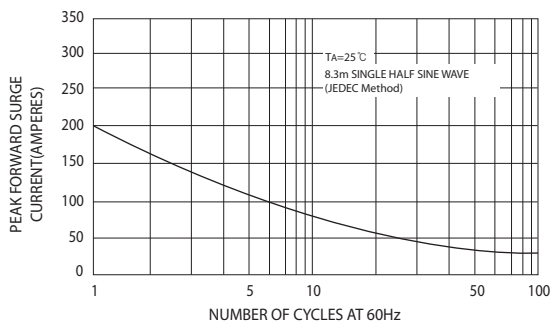


FIG.6-TYPICAL JUNCTION CAPACITANCE

