

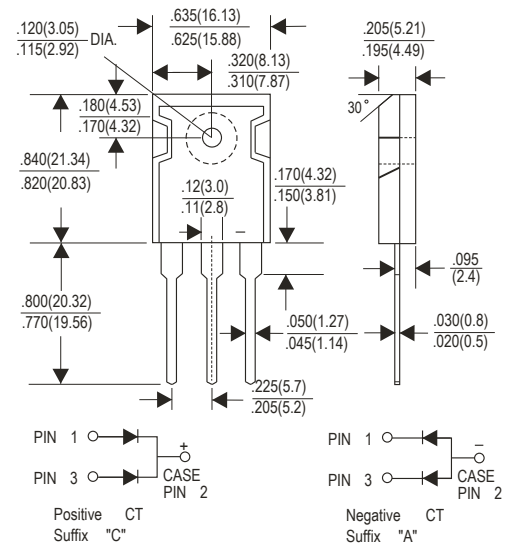
### Features

- 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 : JEDEC TO-3P molded plastic body
- Terminals : Lead solderable per MIL-STD-750, method 2026
- Polarity : As marked
- Mounting Position : Any
- Weight : 0.20 ounce, 5.60 gram

### TO-3P



### 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 3001                   | HER 3002 | HER 3003 | HER 3004 | HER 3005 | HER 3006 | Units |
|--|------------------------------------|----------------------------|----------|----------|----------|----------|----------|-------|
| Maximum recurrent peak reverse voltage   | V <sub>RRM</sub>                   | 50                         | 100      | 200      | 300      | 400      | 600      | Volts |
| Maximum RMS voltage  | V <sub>RMS</sub>                   | 35                         | 70       | 140      | 210      | 280      | 420      | Volts |
| Maximum DC blocking voltage  | V <sub>DC</sub>                    | 50                         | 100      | 200      | 300      | 400      | 600      | Volts |
| Maximum average forward rectified current 0.375"(9.5mm) lead length @ at T <sub>A</sub> =100°C   | I <sub(av)< sub=""></sub(av)<>     | 30.0                       |          |          |          |          |          | Amps  |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I <sub>FSM</sub>                   | 300                        |          |          |          |          |          | Amps  |
| Maximum instantaneous forward voltage at 15.0A   | 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> =125°C                    |                                    | 100                        |          |          |          |          |          |       |
| Maximum reverse recovery time (Note 1)   | T <sub>rr</sub>                    | 50                         |          |          |          | 80       | ns       |       |
| Typical junction capacitance (Note 2)  | C <sub>J</sub>                     | 175                        |          |          |          | 145      | pF       |       |
| Operating junction and storage temperature range   | T <sub>J</sub><br>T <sub>STG</sub> | -55 to +150<br>-55 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 HER3001 THRU HER3006

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

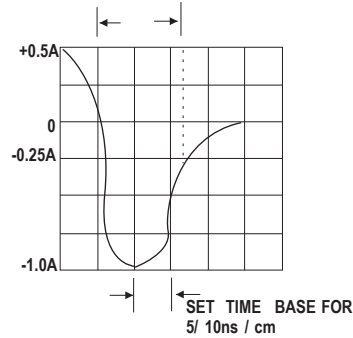
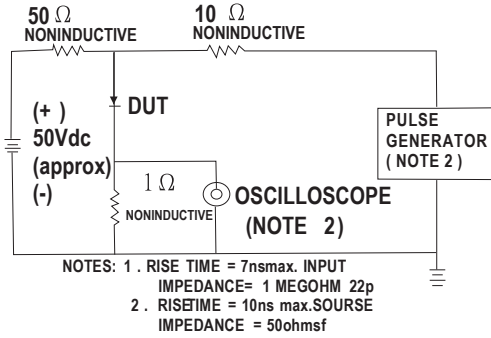


FIG . 2 -MAXIMUM AVERAGE FORWARD CURRENT DERATING

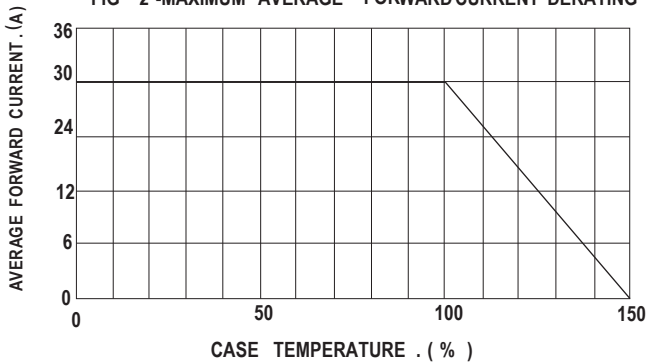


FIG . 3 -TYPICAL REVERSE CHARACTERISTICS PER LEG

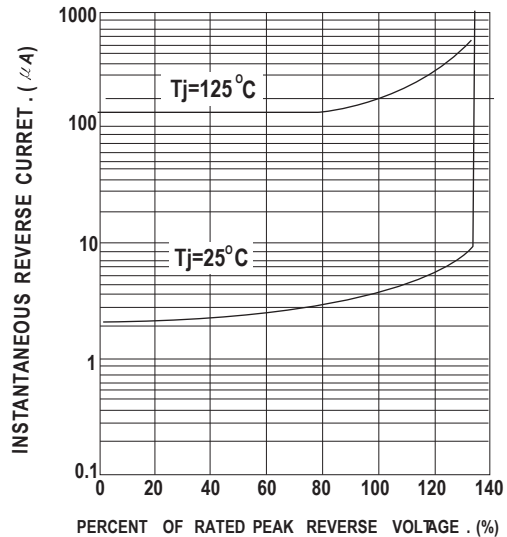


FIG . 4 -MAXIMUM NON - REPETITIVE FORWARD SURGE CURRENT

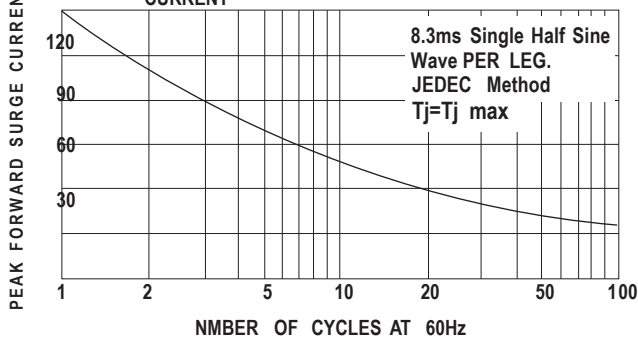


FIG . 6 -TYPICAL FRWARD CHARACTERISTICS

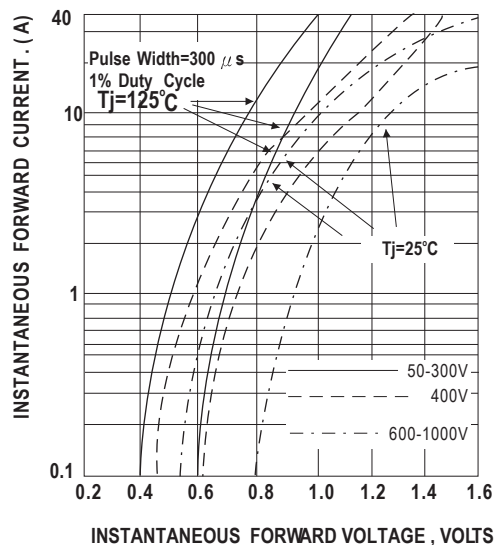


FIG . 5 -TYPICAL JUNCTIOON CAPACITANCE PER LEG

