

## FEATURES:

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

勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-54151736  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

## MECHANICAL DATA

Case : Molded plastic

Epoxy: UL 94V-0 rate flame retardant

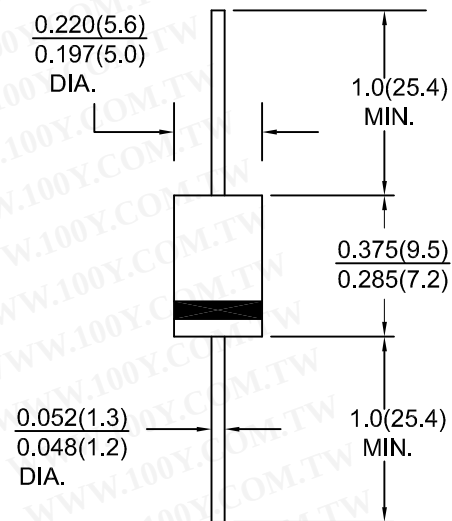
Lead : Axial leads, solderable per MIL-STD-202,  
 Method 208 guaranteed

Polarity : Color band on body denotes cathode end

Mounting Position : Any

Weight : 1.10 grams

## DO-201AD



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25° C ambient temp. unless otherwise specified.

Single phase, half sine wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20 %.

| Characteristic                                                                                      | Symbol                           | HER<br>301  | HER<br>302 | HER<br>303 | HER<br>304 | HER<br>305 | HER<br>306 | HER<br>307 | HER<br>308 | 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<br>.375"(9.5mm) lead length at Ta=50 °C                   | I <sub>O</sub>                   | 3.0         |            |            |            |            |            |            |            | Amps  |
| Peak forward surge current ,8.3ms single half sine-wave<br>superimposed on rated load(JEDEC Method) | I <sub>FSM</sub>                 | 200         |            |            |            |            |            |            |            | Amps  |
| Maximum instantaneous forward voltage at 3.0 A                                                      | V <sub>F</sub>                   | 1.0         |            |            | 1.30       |            | 1.7        |            |            | Volts |
| Maximum DC reverse current Ta=25 °C<br>at rated DC blocking voltage Ta=100 °C                       | I <sub>R</sub>                   | 10.0<br>200 |            |            |            |            |            |            |            | μ A   |
| Maximum reverse recovery time (note 1)                                                              | t <sub>rr</sub>                  | 50          |            |            |            |            | 75         |            |            | nS    |
| Typical junction capacitance (note 2)                                                               | C <sub>j</sub>                   | 75          |            |            |            |            |            |            |            | pF    |
| Operating and storage temperature range                                                             | T <sub>j</sub> ,T <sub>stg</sub> | -65 to +150 |            |            |            |            |            |            |            | °C    |

Notes : 1. Reverse recovery test condition :  $I_F=0.5A$  ;  $I_R=1.0A$  ;  $IRR=0.25A$

2. Measured 1MHz and applied reverse voltage of 4.0V DC

# RATINGS AND CHARACTERISTIC CURVES HER301 THRU HER308

FIG.1-TYPICAL FORWARD CHARACTERISTICS

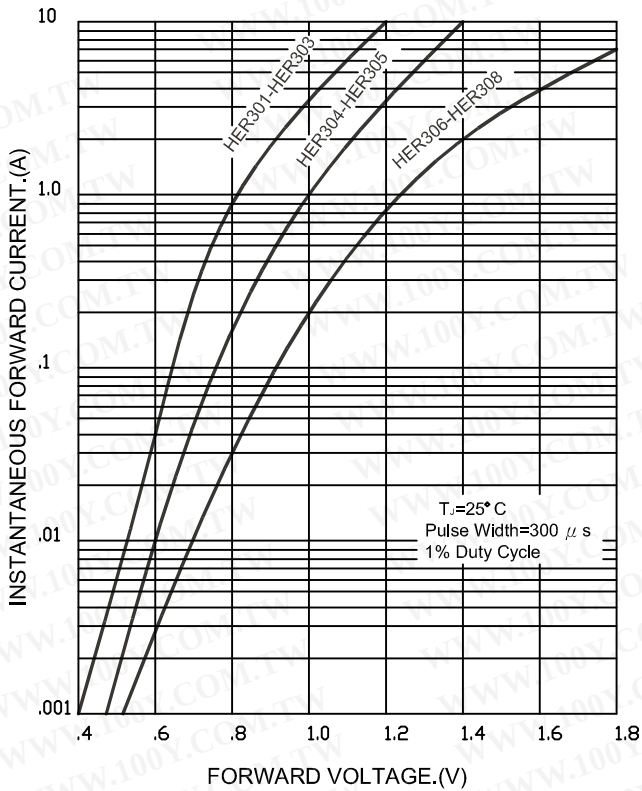
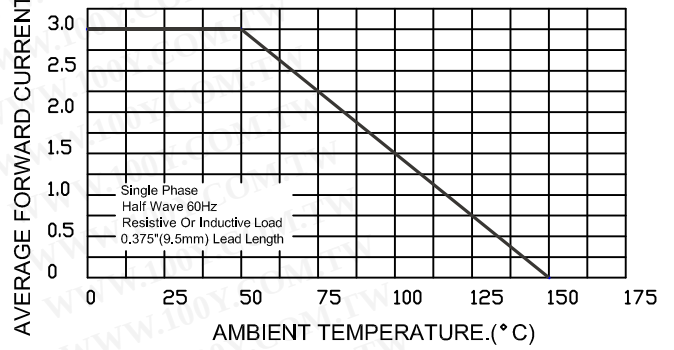


FIG.2 - TYPICAL FORWARD CURRENT DERATING CURVE



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FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

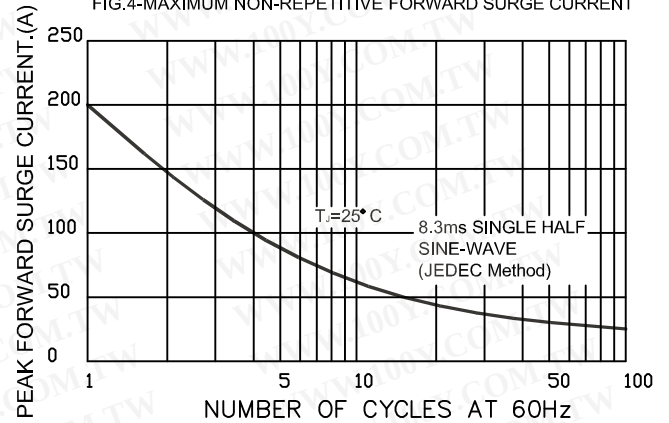
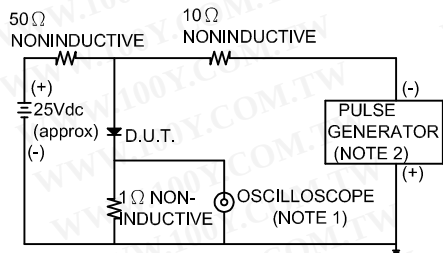


FIG.3-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

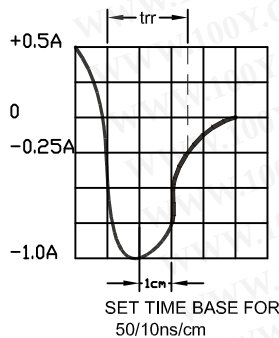


FIG.5-TYPICAL JUNCTION CAPACITANCE

