

# HER201 THRU HER208

## Features

- High Surge Current Capability
- High Reliability
- Low Forward Voltage Drop
- High Current Capability

## Maximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- For capacitive load, derate current by 20%

| Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|----------------|----------------|----------------------------------------|---------------------|-----------------------------|
| HER201         | ---            | 50V                                    | 35V                 | 50V                         |
| HER202         | ---            | 100V                                   | 70V                 | 100V                        |
| HER203         | ---            | 200V                                   | 140V                | 200V                        |
| HER204         | ---            | 300V                                   | 210V                | 300V                        |
| HER205         | ---            | 400V                                   | 280V                | 400V                        |
| HER206         | ---            | 600V                                   | 420V                | 600V                        |
| HER207         | ---            | 800V                                   | 560V                | 800V                        |
| HER208         | ---            | 1000V                                  | 700V                | 1000V                       |

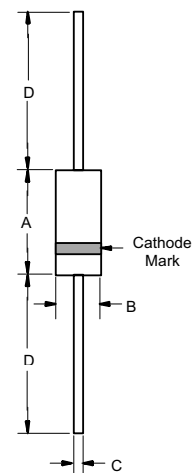
## Electrical Characteristics @ 25°C Unless Otherwise Specified

|                                                                             |             |                                      |                                                              |
|-----------------------------------------------------------------------------|-------------|--------------------------------------|--------------------------------------------------------------|
| Average Forward Current                                                     | $I_{F(AV)}$ | 2 A                                  | $T_A = 55^\circ\text{C}$                                     |
| Peak Forward Surge Current                                                  | $I_{FSM}$   | 60A                                  | 8.3ms, half sine                                             |
| Maximum Instantaneous Forward Voltage<br>HER201-204<br>HER205<br>HER206-208 | $V_F$       | 1.0V<br>1.3V<br>1.7V                 | $I_{FM} = 2.0\text{A};$<br>$T_A = 25^\circ\text{C}$          |
| Reverse Current At Rated DC Blocking Voltage (Maximum DC)                   | $I_R$       | 5 $\mu\text{A}$<br>100 $\mu\text{A}$ | $T_A = 25^\circ\text{C}$<br>$T_A = 100^\circ\text{C}$        |
| Maximum Reverse Recovery Time<br>HER201-205<br>HER206-208                   | $T_{rr}$    | 50ns<br>75ns                         | $I_F=0.5\text{A}, I_R=1.0\text{A},$<br>$I_{rr}=0.25\text{A}$ |
| Typical Junction Capacitance<br>HER201-205<br>HER206-208                    | $C_J$       | 50pF<br>30pF                         | Measured at<br>1.0MHz, $V_R=4.0\text{V}$                     |

\*Pulse Test: Pulse Width 300 $\mu\text{sec}$ , Duty Cycle 1%

## 2.0 Amp High Efficient Rectifiers 50 to 1000 Volts

### DO-15



| DIMENSIONS |        |      |       |      |      |
|------------|--------|------|-------|------|------|
| DIM        | INCHES |      | MM    |      | NOTE |
|            | MIN    | MAX  | MIN   | MAX  |      |
| A          | .230   | .300 | 5.8   | 7.6  |      |
| B          | .104   | .140 | 2.6   | 3.6  |      |
| C          | .028   | .034 | 0.71  | 0.86 |      |
| D          | 1.000  | ---  | 25.40 | ---  |      |

# HER201 THRU HER208

## RATINGS AND CHARACTERISTIC CURVES

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

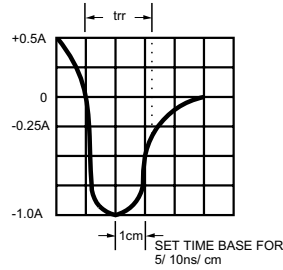
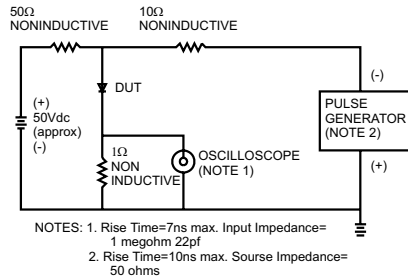


FIG.2- MAXIMUM AVERAGE FORWARD CURRENT DERATING

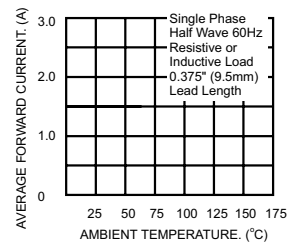


FIG.3- TYPICAL REVERSE CHARACTERISTICS

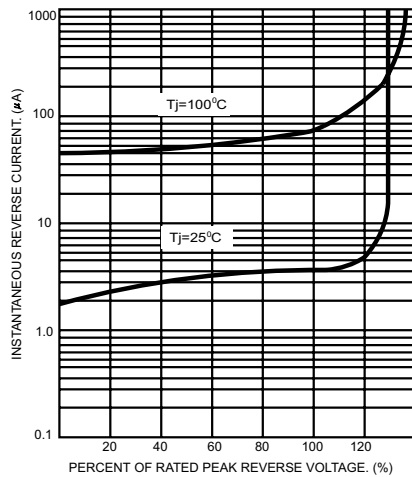


FIG.4- TYPICAL FORWARD CHARACTERISTICS

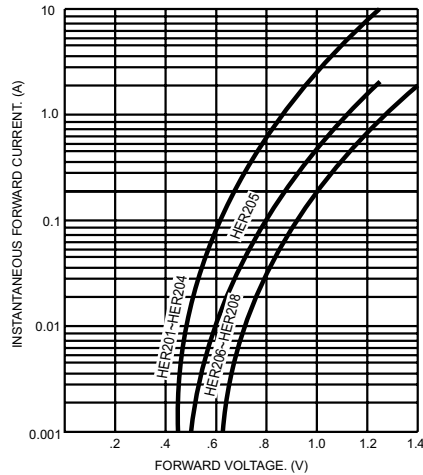


FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

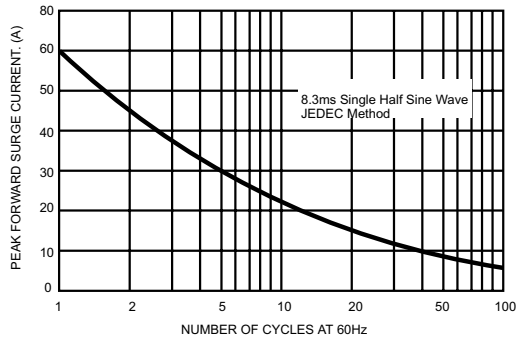


FIG.6- TYPICAL JUNCTION CAPACITANCE

