



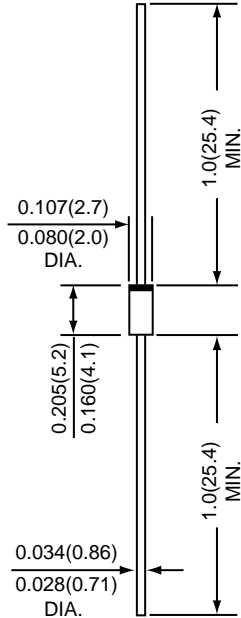
# HER101 THRU HER108

## HIGH EFFICIENCY RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 1.0 Ampere

DO-204AL



\*Dimensions in inches and (millimeters)



### FEATURES

- \* The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- \* Low power loss, high efficiency
- \* Low leakage
- \* Low forward voltage
- \* High current capability
- \* High speed switching
- \* High surge capability
- \* High reliability

### MECHANICAL DATA

**Case :** JEDEC DO-204AL molded plastic

**Terminals :** Plated axial leads , solderable per MIL-STD-750, Method 2026

**Polarity :** Color band denotes cathode end

**Mounting Position :** Any

**Weight :** 0.012 ounces , 0.3 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

| Ratings at 25 °C ambient temperature unless otherwise specified.                                 | SYMBOLS | HER101      | HER102 | HER103 | HER104 | HER105 | HER106 | HER107 | HER108 | UNITS |
|--|---------|-------------|--------|--------|--------|--------|--------|--------|--------|-------|
| Maximum repetitive peak reverse voltage  | VRRM    | 50          | 100    | 200    | 300    | 400    | 600    | 800    | 1000   | Volts |
| Maximum RMS voltage  | VRMS    | 35          | 70     | 140    | 210    | 280    | 420    | 560    | 700    | Volts |
| Maximum DC blocking voltage  | VDC     | 50          | 100    | 200    | 300    | 400    | 600    | 800    | 1000   | Volts |
| Maximum average forward rectified current 0.375" (9.5mm) lead length at TL=50°C                  | I(AV)   | 1.0         |        |        |        |        |        |        |        | Amps  |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | IFSM    | 30          |        |        |        |        |        |        |        | Amps  |
| Maximum instantaneous forward voltage at 1.0 A   | VF      | 1.0         |        | 1.3    |        | 1.7    |        |        | Volts  |       |
| Maximum Full Load Reverse Current Full Cycle average, 0.375" (9.5mm) lead length at TL=55°C      | IR(AV)  | 100         |        |        |        |        |        |        |        | uA    |
| Maximum DC reverse current at rated DC blocking voltage TA=25°C                                  | IR      | 5.0         |        |        |        |        |        |        |        | uA    |
| Maximum reverse recovery time (NOTE 1)   | trr     | 50          |        |        |        | 75     |        |        |        | nS    |
| Typical junction capacitance (NOTE 2)  | CJ      | 16          |        |        |        | 13     |        |        |        | pF    |
| Operating junction and storage temperature range   | TJ,TSTG | -65 to +150 |        |        |        |        |        |        |        | °C    |

NOTES : (1) Reverse recovery test condition : IF 0.5A, IR=1.0A, Irr=0.25A  
 (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

# RATINGS AND CHARACTERISTIC CURVES HER101 THRU HER108

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

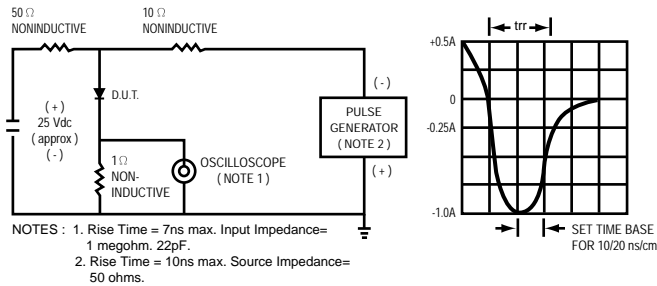


FIG.2 - FORWARD CURRENT DERATING CURVE

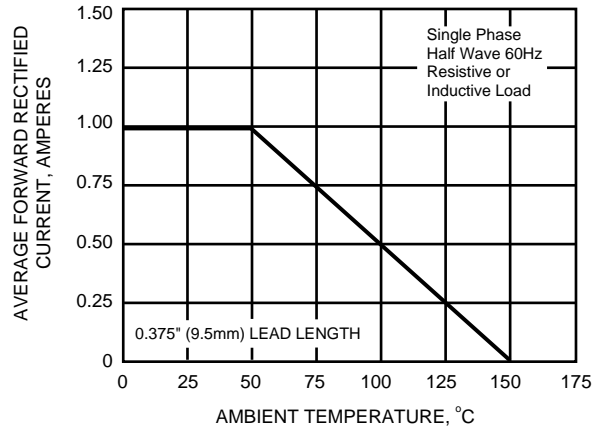


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

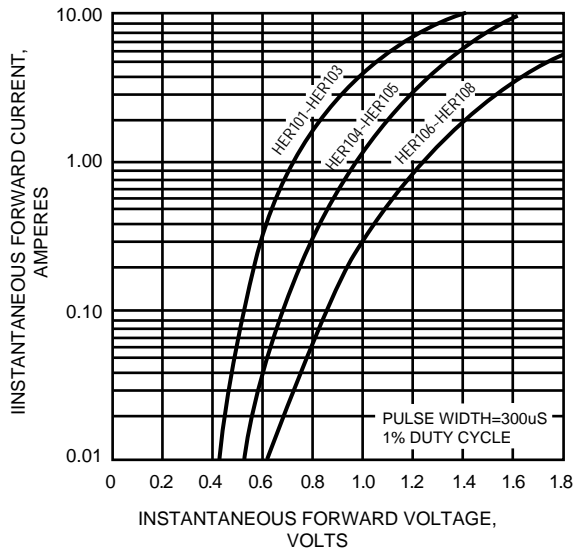


FIG.4 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

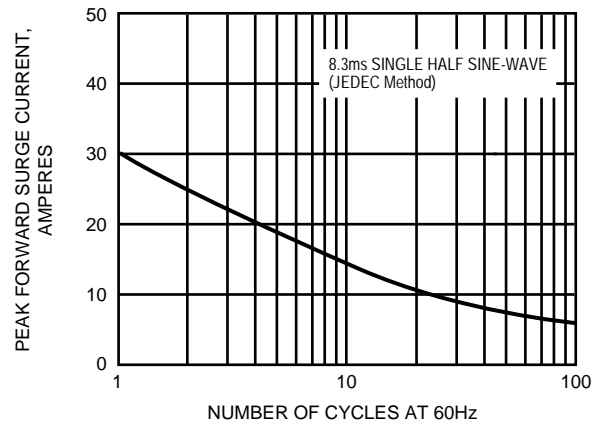


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

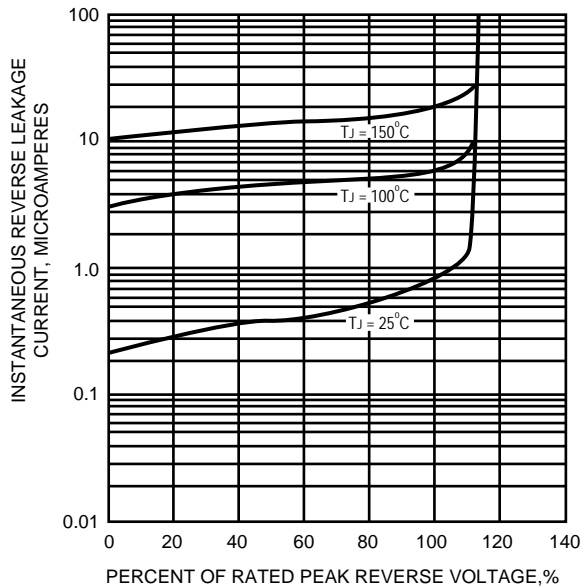


FIG.6 - TYPICAL JUNCTION CAPACITANCE

