




HER501 THRU HER508

5.0 AMPS. HIGH EFFICIENCY RECTIFIERS



FEATURES

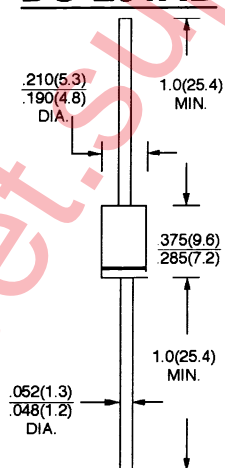
- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL - 0 rate flame retardant
- * Lead: Axial leads, solderable per MIL - STD - 202, method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting Position: Any
- * Weight: 1.18 grams

VOLTAGE RANGE
50 to 1000 Volts
CURRENT
5.0 Amperes

DO-201AD



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

| TYPE NUMBER | SYMBOLS | HER 501 | HER 502 | HER 503 | HER 504 | HER 505 | HER 506 | HER 507 | HER 508 | UNITS | |
|---|-------------|---------------|---------|---------|---------|---------|---------|---------|---------|--------------------------------|----|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | V | |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 210 | 280 | 420 | 560 | 700 | V | |
| Maximum D. C Blocking Voltage | V_{DC} | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | V | |
| Maximum Average Forward Rectified Current .375" (9.5mm) lead length @ $T_A = 55^\circ\text{C}$ (Note 1) | $I_{F(AV)}$ | 5.0 | | | | | | | | A | |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 150 | | | | | | | | A | |
| Maximum Instantaneous Forward Voltage at 3.0A (Note 1) | V_F | 1.0 | | | 1.3 | | 1.7 | | | V | |
| Maximum D. C Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated D. C Blocking Voltage @ $T_A = 100^\circ\text{C}$ | I_R | 10.0 | | | | 200 | | | | μA μA | |
| Maximum Reverse Recovery Time (Note 2) | T_{RR} | 50 | | | | | 75 | | | | nS |
| Typical Junction Capacitance (Note 3) | C_J | 75 | | | | | 55 | | | | pF |
| Operating Temperature Range | T_J | - 65 to + 125 | | | | | | | | | °C |
| Storage Temperature Range | T_{STG} | - 65 to + 150 | | | | | | | | | °C |

- NOTES:**
1. Mounted on P. C. B With 1.1 x 1.1" (30 x 30mm) copper pads.
 2. Reverse Recovery Test Conditions: $I_F = 0.5A$, $I_R = 1.0A$, $I_{RR} = 0.25A$.
 3. Measured at 1 MHz and applied reverse voltage of 4.0V D. C.

RATINGS AND CHARACTERISTIC CURVES (HER501 THRU HER508)

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

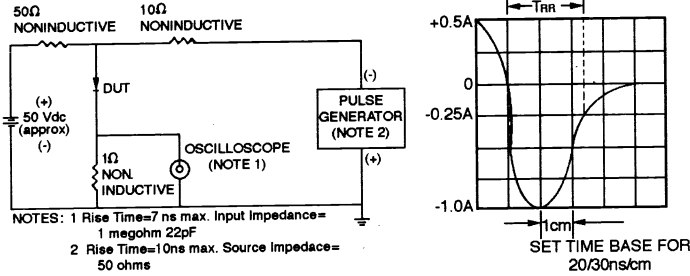


FIG. 2 – TYPICAL FORWARD CURRENT DERATING CURVE

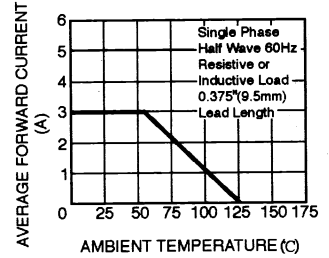


FIG. 3 – TYPICAL REVERSE CHARACTERISTICS

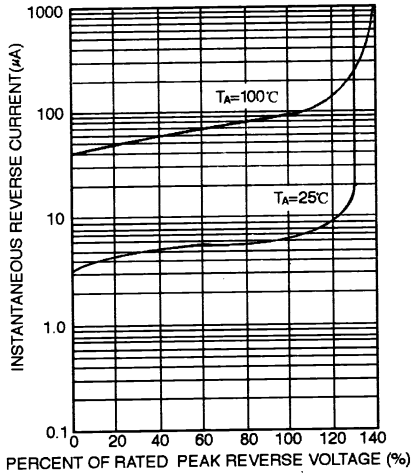


FIG. 4 – TYPICAL FORWARD CHARACTERISTICS

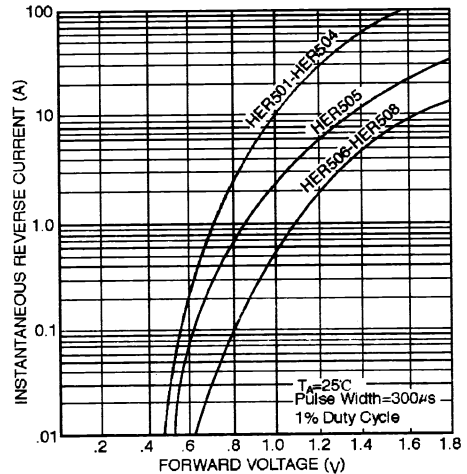


FIG. 5 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

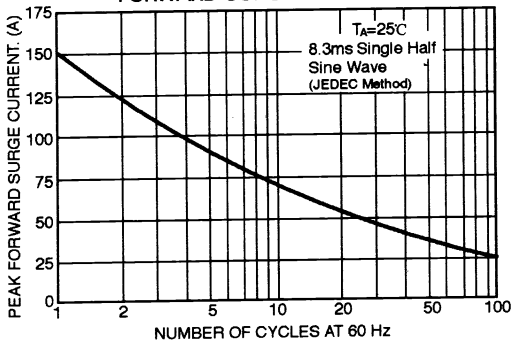


FIG. 6 – TYPICAL JUNCTION CAPACITANCE

