



HER301G THRU HER308G

3.0 AMPS. GLASS PASSIVATED HIGH EFFICIENCY RECTIFIERS



FEATURES

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

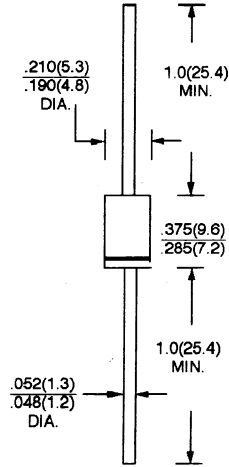
MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting Position: Any
- * Weight: 1.18 grams

VOLTAGE RANGE

50 to 1000 Volts
CURRENT
3.0 Amperes

DO-201AD



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 301G | HER 302G | HER 303G | HER 304G | HER 305G | HER 306G | HER 307G | HER 308G | 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) | $I_{F(AV)}$ | 3.0 | | | | | | | | A | |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 100 | | | | | | | | 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 @ $T_A = 125^\circ\text{C}$ | 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 | 80 | | | | | 50 | | | | pF |
| Operating and Storage Temperature Range | T_J, T_{STG} | -65 to +150 | | | | | | | | $^\circ\text{C}$ | |

- NOTES: 1. Each Lead mounted on a $0.8 \times 0.8 \times 0.04$ " ($20 \times 20 \times 1$ mm) copper heat - sink.
2. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$.
3. Measured at 1 MHz and applied reverse voltage of 4.0V D. C.

RATINGS AND CHARACTERISTIC CURVES (HER301G THRU HER308G)

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

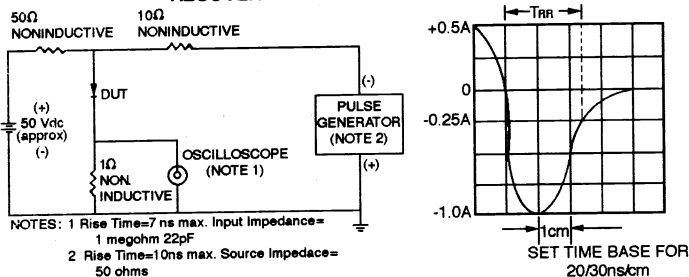


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

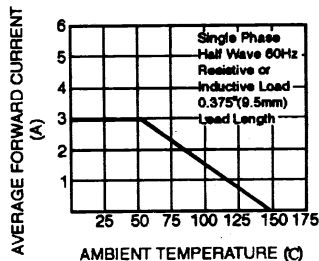


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

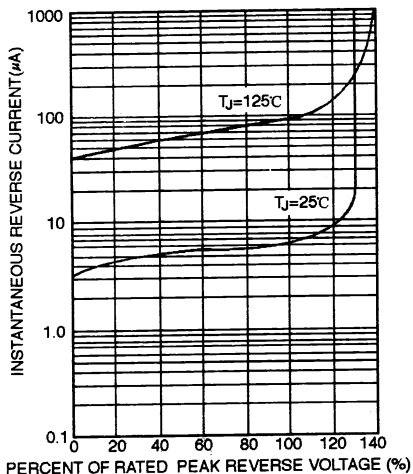


FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

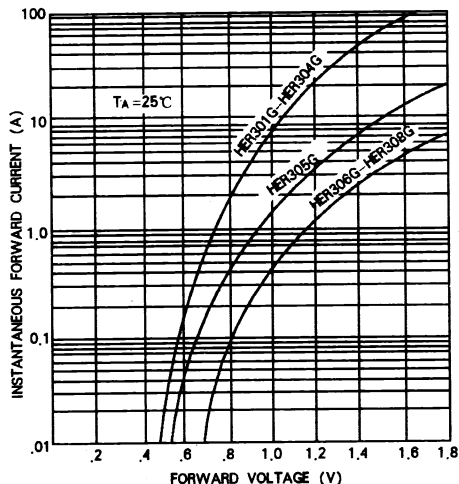


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

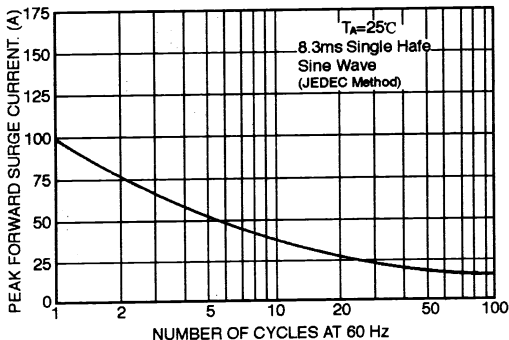


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

