



HER201 THRU HER208

Reverse Voltage - 50 to 1000 Volts Forward Current - 2.0 Ampere

HIGH EFFICIENCY RECTIFIERS

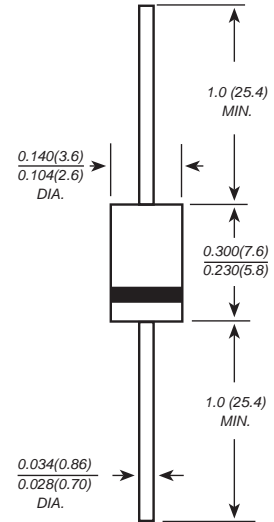
Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ High speed switching for high efficiency
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

Mechanical Data

Case : JEDEC DO-15 Molded plastic body
Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
Polarity : Polarity symbol marking on body
Mounting Position : Any
Weight : 0.014 ounce, 0.40 grams

DO-15 **RoHS**
COMPLIANT



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| parameter | SYMBOLS | MDD | MDD | MDD | MDD | MDD | MDD | MDD | MDD | UNITS |
|--|-----------------|--------------|--------|--------|--------|--------|--------|--------|--------|--------------|
| | | HER201 | HER202 | HER203 | HER204 | HER205 | HER206 | HER207 | HER208 | |
| Marking code | | | | | | | | | | |
| Maximum repetitive 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 DC blocking voltage | V_{DC} | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | V |
| Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=50^\circ C$ | $I_{(AV)}$ | 2.0 | | | | | | | | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 60.0 | | | | | | | | A |
| Maximum instantaneous forward voltage at 2.0A | V_F | 1.0 | | 1.3 | | 1.7 | | | V | |
| Maximum DC reverse current $T_A=25^\circ C$ at rated DC blocking voltage $T_A=100^\circ C$ | I_R | 5.0 100.0 | | | | | | | | μA |
| Maximum reverse recovery time (NOTE 1) | t_{rr} | 50 | | | | | 70 | | | ns |
| Typical junction capacitance (NOTE 2) | C_J | 30.0 | | | | | 20.0 | | | pF |
| Typical thermal resistance (NOTE 3) | $R_{\theta JA}$ | 50.0 | | | | | | | | $^\circ C/W$ |
| Operating junction and storage temperature range | T_J, T_{STG} | -65 to +150 | | | | | | | | $^\circ C$ |

- Note:** 1. Reverse recovery condition $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$
 2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 3. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted



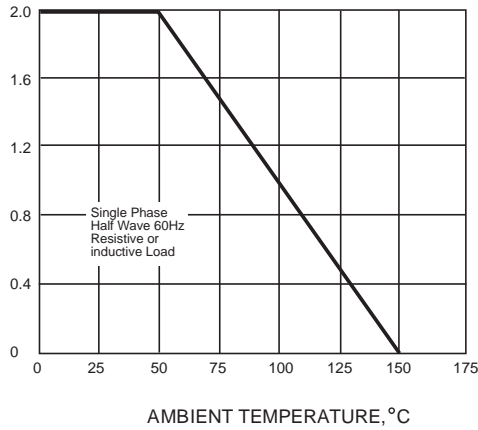
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Ratings And Characteristic Curves

AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT, AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

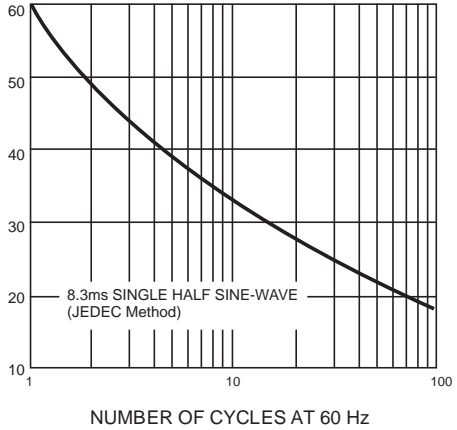
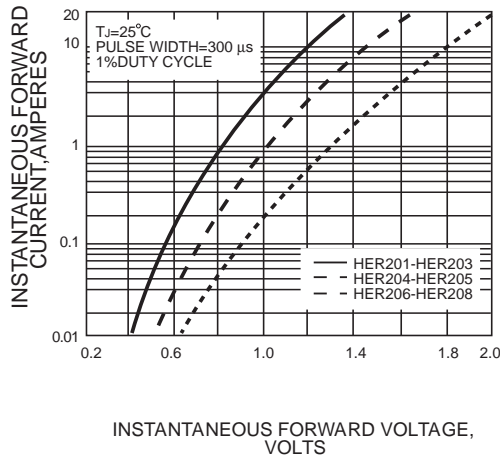


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

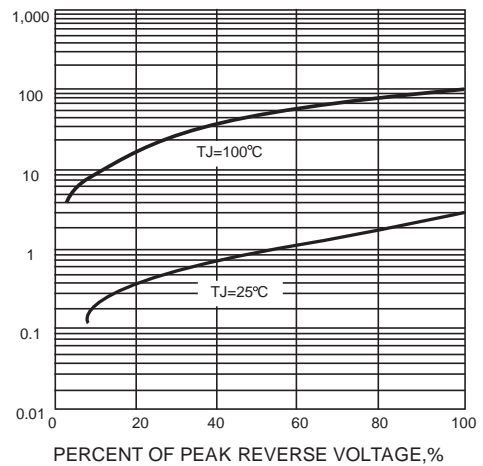
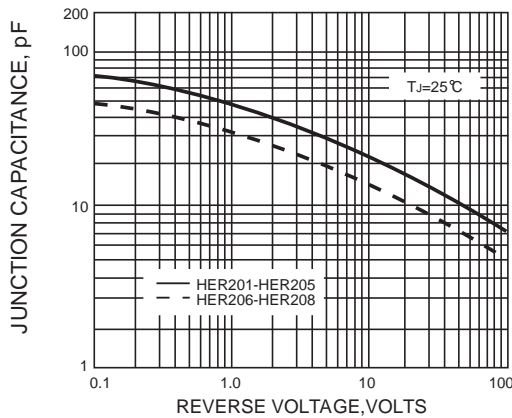
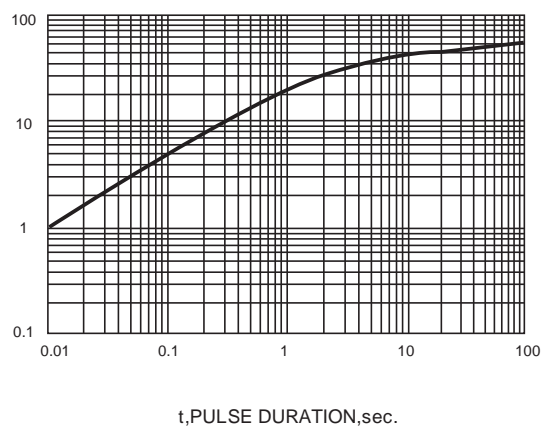


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



The curve above is for reference only.