

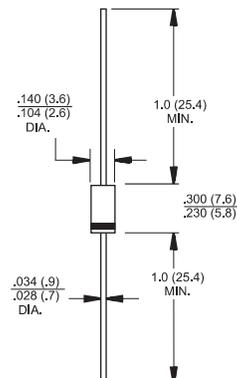


Features

- ◇ High efficiency, Low VF
- ◇ High current capability
- ◇ High reliability
- ◇ High surge current capability
- ◇ For use in low voltage, high frequency inverter, free wheeling, and polarity protection application.

Mechanical Data

- ◇ Cases: Molded plastic
- ◇ Epoxy: UL 94V-0 rate flame retardant
- ◇ Lead: Pure tin plated, lead free, solderable per MIL-STD-202, method 208 guaranteed
- ◇ Polarity: Color band denotes cathode
- ◇ High temperature soldering guaranteed: 260°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ◇ Weight: 0.40grams



Dimensions in inches and (millimeters)

Maximum Rating 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 | Symbol | HER 201 | HER 202 | HER 203 | HER 204 | HER 205 | HER 206 | HER 207 | HER 208 | 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 DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | V | |
| Maximum Average Forward Rectified Current .375 (9.5mm) lead length @ $T_A = 55^\circ C$ | $I_{(AV)}$ | 2.0 | | | | | | | | A | |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 60 | | | | | | | | A | |
| Maximum Instantaneous Forward Voltage @ 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 @ $T_a=125^\circ C$ | I_R | 5.0 | | | | | 150 | | | | uA uA |
| Maximum Reverse Recovery Time (Note 1) | T_{rr} | 50 | | | | | 75 | | | | nS |
| Typical Junction Capacitance (Note 2) | C_j | 50 | | | | | 35 | | | | pF |
| Typical Thermal Resistance | $R_{\theta JA}$ | 60 | | | | | | | | °C/W | |
| Operating Temperature Range | T_J | -65 to +150 | | | | | | | | °C | |
| Storage Temperature Range | T_{STG} | -65 to +150 | | | | | | | | °C | |

- Notes:
1. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$
 2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.
 3. Mount on Cu-Pad Size 10mm x 10mm on PCB.

RATINGS AND CHARACTERISTIC CURVES (HER201 THRU HER208)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

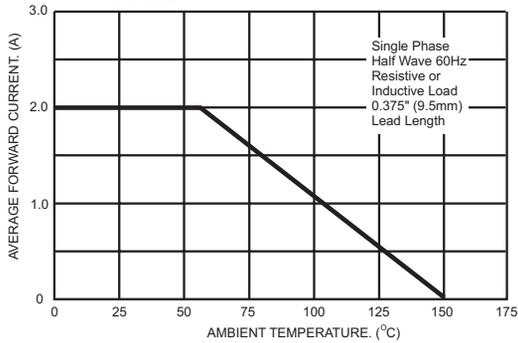


FIG.2- TYPICAL REVERSE CHARACTERISTICS

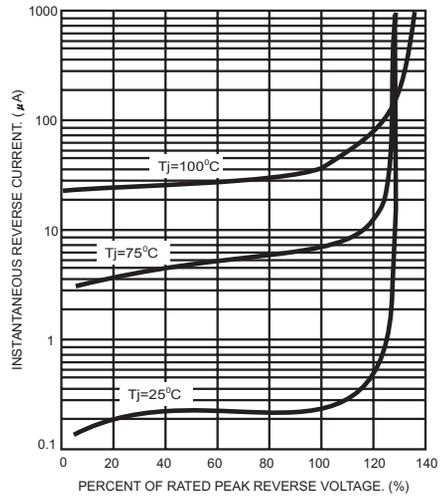


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

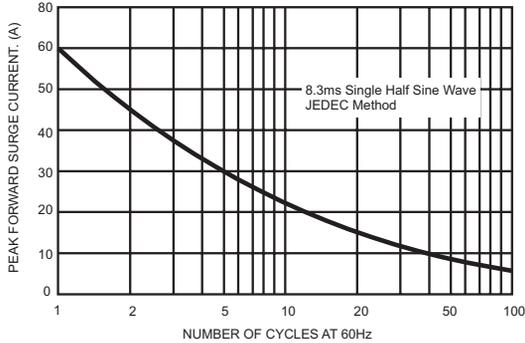


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

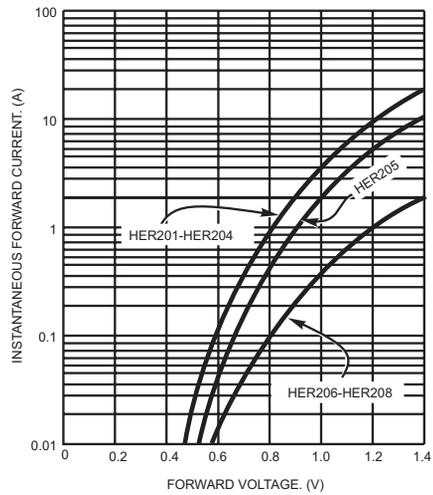


FIG.4- TYPICAL JUNCTION CAPACITANCE

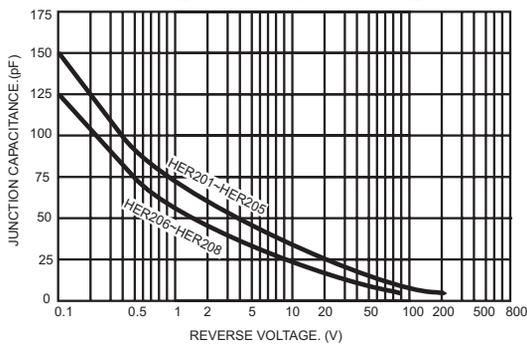
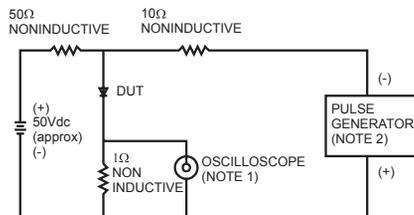
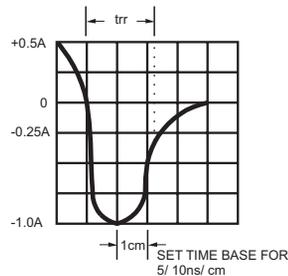


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES: 1. Rise Time=7ns max. Input Impedance= 1 megohm 22pf
2. Rise Time=10ns max. Source Impedance= 50 ohms



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