

RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

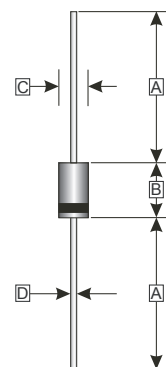
## FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- High speed switching

## PACKAGING INFORMATION

- Glass Passivated
- 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: 1.1050 grams (approximately)

**DO-27**



| REF. | Millimeter |      |
|------|------------|------|
|      | Min.       | Max. |
| A    | 25.4 (TYP) |      |
| B    | 7.20       | 9.53 |
| C    | 5.00       | 5.60 |
| D    | 1.20       | 1.32 |

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| PARAMETERS                               | SYMBOL           | PART NUMBERS |           |           |           |           |           |           | UNITS | TESTING CONDITIONS                                                    |
|------------------------------------------|------------------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-------|-----------------------------------------------------------------------|
|                                          |                  | HER 301 G    | HER 302 G | HER 303 G | HER 304 G | HER 305 G | HER 306 G | HER 307 G |       |                                                                       |
| Recurrent Reverse Voltage (Max.)         | V <sub>RRM</sub> | 50           | 100       | 200       | 400       | 600       | 800       | 1000      | V     |                                                                       |
| RMS Voltage (Max.)                       | V <sub>RMS</sub> | 35           | 70        | 140       | 280       | 420       | 560       | 700       | V     |                                                                       |
| DC Blocking Voltage (Max.)               | V <sub>DC</sub>  | 50           | 100       | 200       | 400       | 600       | 800       | 1000      | V     |                                                                       |
| Instantaneous Forward Voltage (Max.)     | V <sub>F</sub>   | 1.00         |           |           | 1.30      | 1.70      |           |           | V     | I <sub>F</sub> = 3A                                                   |
| Average Forward Rectified Current (Max.) | I <sub>O</sub>   | 3.0          |           |           |           |           |           |           | A     | 0.375" (9.5mm) lead length @ T <sub>A</sub> = 50°C                    |
| Peak Forward Surge Current               | I <sub>FSM</sub> | 150          |           |           |           |           |           |           | A     | 8.3ms single half sine-wave superimposed on rated load (JEDEC method) |
| DC Reverse Current (Max.)                | I <sub>R</sub>   | 10.0         |           |           |           |           |           |           | μA    | V <sub>R</sub> = V <sub>RRM</sub> , T <sub>A</sub> =25°C              |
|                                          |                  | 200          |           |           |           |           |           |           |       | V <sub>R</sub> = V <sub>RRM</sub> , T <sub>A</sub> =100°C             |
| Reverse Recovery Time (Max.)             | T <sub>RR</sub>  | 50           |           |           |           |           | 70        |           | nS    | I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>RR</sub> =0.25A    |
| Junction Capacitance (Typ.)              | C <sub>J</sub>   | 75           |           |           |           |           |           |           | pF    | f=1MHz and applied 4V DC reverse voltage                              |
| Storage Temperature Range                | T <sub>STG</sub> | -65 ~ 150    |           |           |           |           |           |           | °C    |                                                                       |

## RATINGS AND CHARACTERISTIC CURVES (HER301G THRU HER307G)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

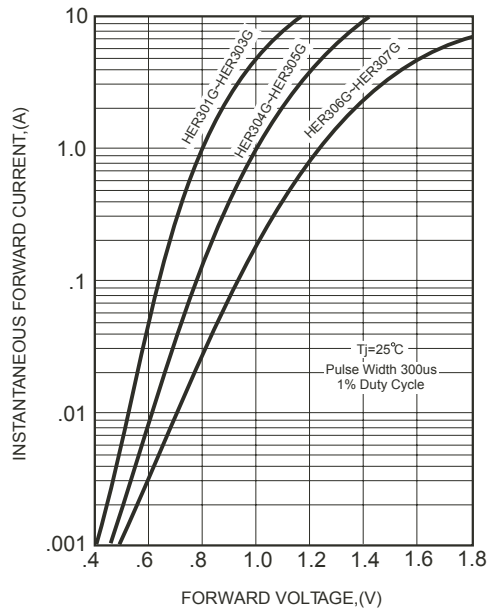


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

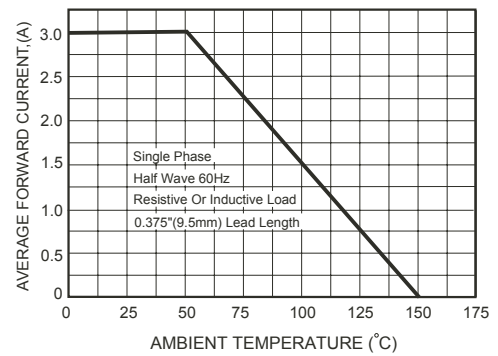
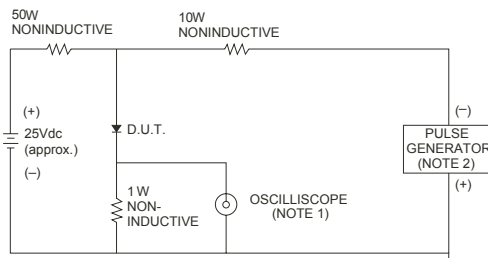


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

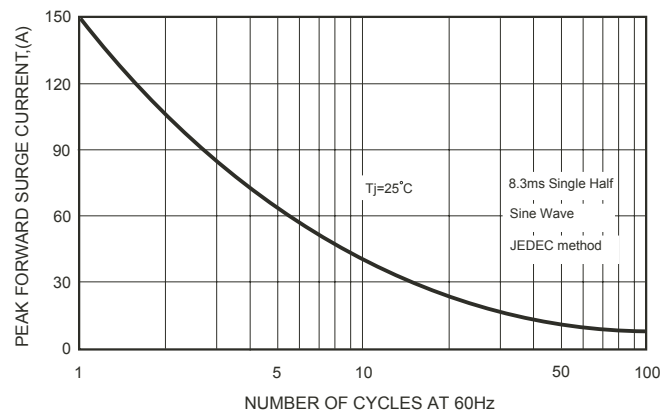


FIG.5-TYPICAL JUNCTION CAPACITANCE

