

### GLASS PASSIVATED RECTIFIERS

VOLTAGE RANGE: 50 --- 1000 V  
CURRENT: 3.0 A

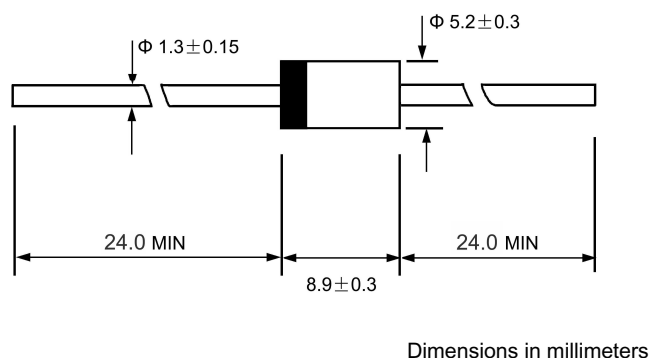
#### FEATURES

- ◇ Low cost
- ◇ Glass passivated junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with Freon,Alcohol,Isopropanop and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

#### MECHANICAL DATA

- ◇ Case:JEDEC DO-27,molded plastic
- ◇ Terminals: Axial lead ,solderable per ML- STD-202,Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.041ounces,1.15grams
- ◇ Mounting position: Any

#### DO - 27



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

|                                                                                                                |                    | HER 301G      | HER 302G | HER 303G | HER 304G | HER 305G | HER 306G | HER 307G | HER 308G | UNITS |
|----------------------------------------------------------------------------------------------------------------|--------------------|---------------|----------|----------|----------|----------|----------|----------|----------|-------|
| Maximum recurrent peak reverse voltage                                                                         | V <sub>RRM</sub>   | 50            | 100      | 200      | 300      | 400      | 600      | 800      | 1000     | V     |
| Maximum RMS voltage                                                                                            | V <sub>RMS</sub>   | 35            | 70       | 140      | 210      | 280      | 420      | 560      | 700      | V     |
| Maximum DC blocking voltage                                                                                    | V <sub>DC</sub>    | 50            | 100      | 200      | 300      | 400      | 600      | 800      | 1000     | V     |
| Maximum average forward rectified current<br>9.5mm lead length, @T <sub>A</sub> =75°C                          | I <sub>F(AV)</sub> | 3.0           |          |          |          |          |          |          |          | A     |
| Peak forward surge current<br>8.3ms single half-sine-wave<br>superimposed on rated load @T <sub>J</sub> =125°C | I <sub>FSM</sub>   | 200.0         |          |          |          |          | 150.0    |          |          | A     |
| Maximum instantaneous forward voltage<br>@3.0 A                                                                | V <sub>F</sub>     | 1.0           |          |          | 1.3      |          | 1.7      |          |          | V     |
| Maximum reverse current @T <sub>A</sub> =25°C<br>at rated DC blocking voltage @T <sub>A</sub> =100°C           | I <sub>R</sub>     | 10.0<br>150.0 |          |          |          |          |          |          |          | μA    |
| Maximum reverse capacitance (Note1)                                                                            | t <sub>rr</sub>    | 50            |          |          |          |          | 75       |          |          | ns    |
| Typical junction capacitance (Note2)                                                                           | C <sub>J</sub>     | 70            |          |          |          |          | 50       |          |          | pF    |
| Typical thermal resistance (Note3)                                                                             | R <sub>θJA</sub>   | 30.0          |          |          |          |          |          |          |          | °C/W  |
| Operating junction temperature range                                                                           | T <sub>J</sub>     | - 55—— +175   |          |          |          |          |          |          |          | °C    |
| Storage temperature range                                                                                      | T <sub>STG</sub>   | - 55—— + 175  |          |          |          |          |          |          |          | °C    |

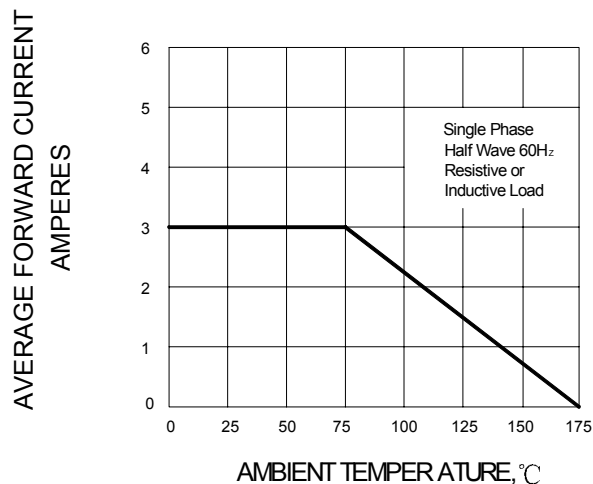
NOTE:1. Measured with  $I_F=0.5A$ ,  $I_R=1A$ ,  $I_{rr}=0.25A$ .

2. Measured at 1.0MHz and applied reverse voltage of 4.0V

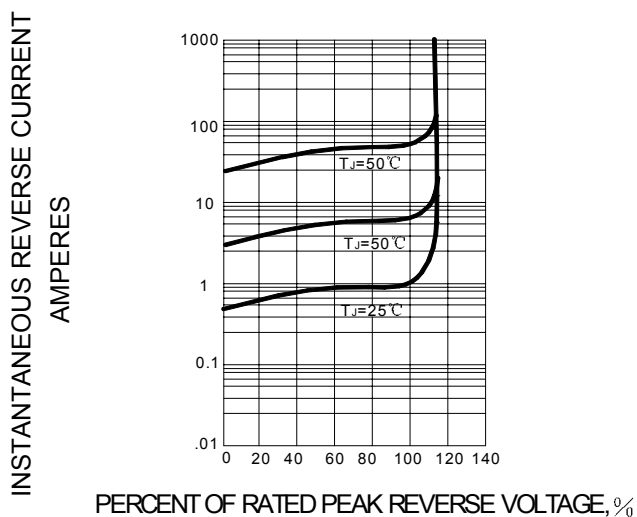
3. Thermal resistance from junction to ambient.

www.galaxycn.com

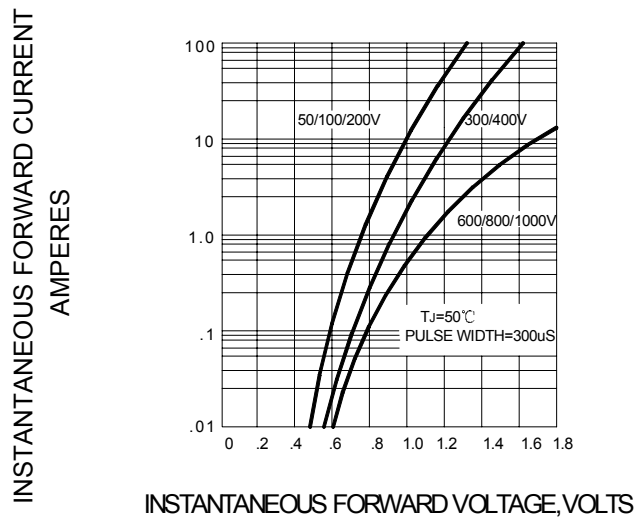
**FIG.1 -FORWARD DERATING CURVE**



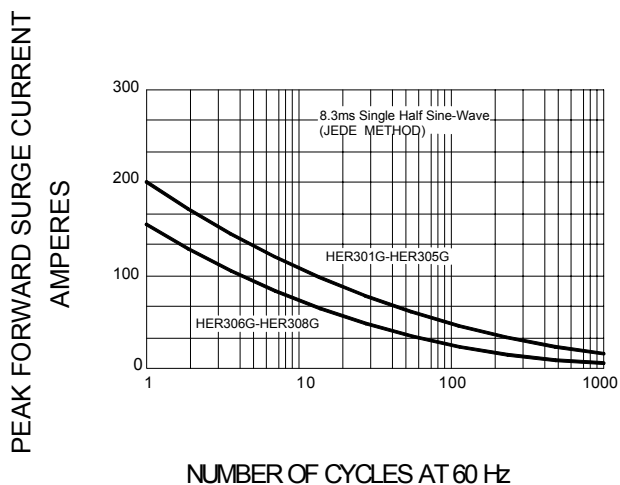
**FIG.2 -TYPICAL REVERSE CHARACTERISTICS**



**FIG.3-TYPICAL FORWARD CHARACTERISTICS**



**FIG.4-PEAK FORWARD SURGE CURRENT**



**FIG.5-TYPICAL JUNCTION CAPACITANCE**

