

### HER301 thur HER308

**CREATEK Microelectronics** 

### High Efficient Rectifier in DO-201AD(DO-27)

#### Features

- High surge current capability
- High current capability
- High reliability
- High efficiency

#### **Mechanical Data**

- Case: JEDEC DO-201AD(DO-27) molded plastic Lead free; RoHS compliant
- Molding Compound Flammability Rating: UL 94 V-0
- **Terminals:** High temperature soldering guaranteed: 260 °C/10 sec. at terminals

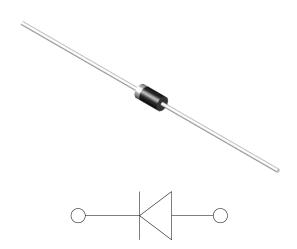
### **Maximum Ratings And Electrical Characteristics**

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 | HER<br>301  | HER<br>302 | HER<br>303 | HER<br>304 | HER<br>305 | HER<br>306 | HER<br>307 | HER<br>308 | Units |
|--|---------|-------------|------------|------------|------------|------------|------------|------------|------------|-------|
| Maximum repetitive peak reverse voltage  | Vrrm    | 50          | 100        | 200        | 300        | 400        | 600        | 800        | 1000       | V     |
| Maximum RMS voltage  |         | 35          | 70         | 140        | 210        | 280        | 420        | 560        | 700        | V     |
| Maximum DC blocking voltage  | Vdc     | 50          | 100        | 200        | 300        | 400        | 600        | 800        | 1000       | V     |
| Maximum average forward rectified current<br>at T∟=100°C                           | l(AV)   | 3.0         |            |            |            | А          |            |            |            |       |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load | Ifsm    | 150.0       |            |            |            | A          |            |            |            |       |
| Maximum instantaneous forward voltage at 1.0A                                      | Vf      | 1.0 1.4     |            | 1.7        |            | V          |            |            |            |       |
| Maximum DC reverse current TA =25°C<br>at rated DC blocking voltage TA=125°C       | lr      | 10.0<br>500 |            |            | uA         |            |            |            |            |       |
| Maxinum reverse recovery time(Note 1)  | Trr     | 50 75       |            |            | ns         |            |            |            |            |       |
| Typical junction capacitance (Note2)   | CJ      | 70.0        |            |            | pF         |            |            |            |            |       |
| Typical thermal resistance   | Rqja    | 45.0        |            |            | °C/W       |            |            |            |            |       |
| Operating junction and storage temperature range                                   | Тј,Тѕтс | -55 to +150 |            |            | °C         |            |            |            |            |       |

Note: 1. Reverse recovery time test condition: IF=0.5A IR=1.0A Irr=0.25A

2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

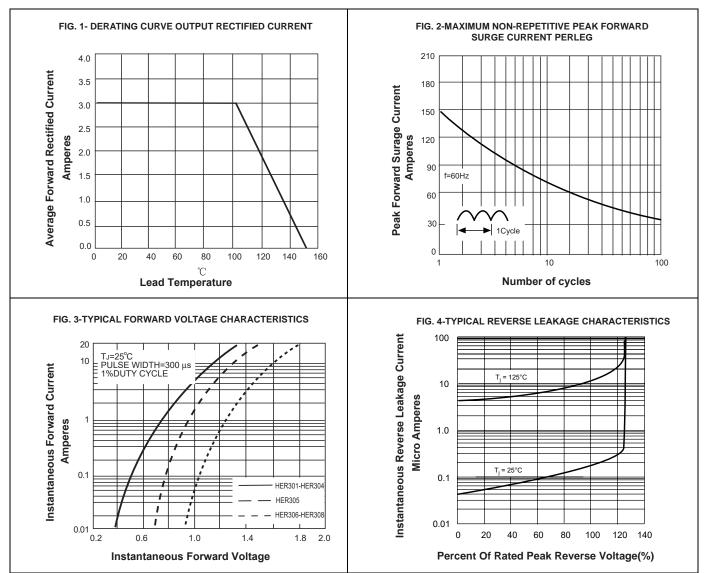


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### **Typical Characteristics** ( $T_{amb}$ = 25 °C unless otherwise specified)

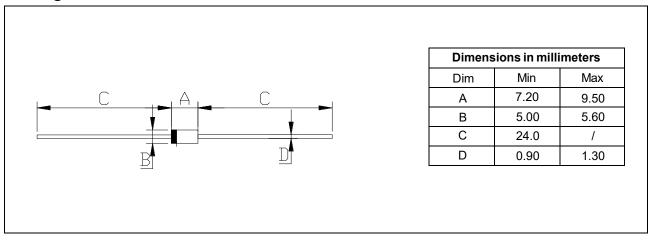




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### **Package Dimensions**



#### **Ordering information**

| Order code         | Package         | Packaging option | Base quantity | Packaging specification |  |
|--------------------|-----------------|------------------|---------------|-------------------------|--|
| HER301 thur HER308 | DO-201AD(DO-27) | Tape and BOX     | 1250pcs       | EIA STD RS-481          |  |

### **Revision history**

| Date        | Revision | Changes         |
|-------------|----------|-----------------|
| 23-May-2012 | 1.0      | Initial release |

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