

## CGRB301-G Thru. CGRB307-G

**Glass Passivated Type**

**Reverse Voltage: 50 to 1000 Volts**

**Forward Current: 2.0 Amp**

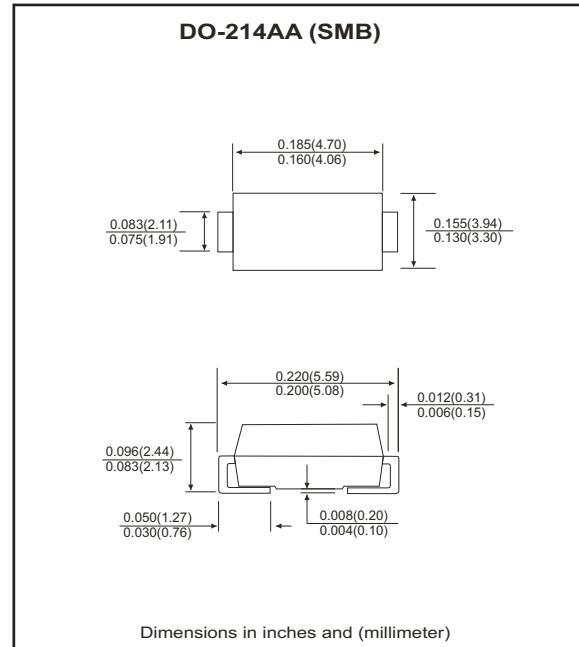
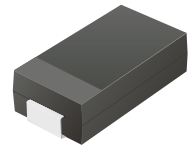
**RoHS Device**

### Features

- Ideal for surface mount applications.
- Easy pick and place.
- Plastic package has Underwriters Lab. flammability classification 94V-0.
- Built in strain relief.
- High surge current capability.

### Mechanical data

- Case: JEDEC DO-214AA, molded plastic.
- Terminals: solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode end.
- Approx. weight: 0.093 grams



### Maximum Ratings and Electrical Characteristics

| Parameter                                                                                        | Symbol          | CGRB 301-G  | CGRB 302-G | CGRB 303-G | CGRB 304-G | CGRB 305-G | CGRB 306-G | CGRB 307-G | Units         |
|--------------------------------------------------------------------------------------------------|-----------------|-------------|------------|------------|------------|------------|------------|------------|---------------|
| Max. repetitive peak reverse voltage                                                             | $V_{RRM}$       | 50          | 100        | 200        | 400        | 600        | 800        | 1000       | V             |
| Max. DC blocking voltage                                                                         | $V_{DC}$        | 50          | 100        | 200        | 400        | 600        | 800        | 1000       | V             |
| Max. RMS voltage                                                                                 | $V_{RMS}$       | 35          | 70         | 140        | 280        | 420        | 560        | 700        | V             |
| Peak surge forward current, 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | $I_{FSM}$       | 100         |            |            |            |            |            |            | A             |
| Max. average forward current                                                                     | $I_o$           | 3.0         |            |            |            |            |            |            | A             |
| Max. instantaneous forward voltage at 3.0A                                                       | $V_F$           | 1.1         |            |            |            |            |            |            | V             |
| Max. DC reverse current at $T_A=25^{\circ}C$<br>rated DC blocking voltage $T_A=125^{\circ}C$     | $I_R$           | 5.0<br>150  |            |            |            |            |            |            | $\mu A$       |
| Max. thermal resistance (Note 1)                                                                 | $R_{\theta JA}$ | 50          |            |            |            |            |            |            | $^{\circ}C/W$ |
| Max. operating junction temperature                                                              | $T_J$           | 150         |            |            |            |            |            |            | $^{\circ}C$   |
| Storage temperature                                                                              | $T_{STG}$       | -55 to +150 |            |            |            |            |            |            | $^{\circ}C$   |

Notes: 1. Thermal resistance from junction to terminal mounted on P.C.B. with 5.0×5.0 mm square<sup>2</sup>(0.13mm thick) land area.

## RATING AND CHARACTERISTIC CURVES (CGRB301-G thru CGRB307-G)

Fig.1 Reverse Characteristics

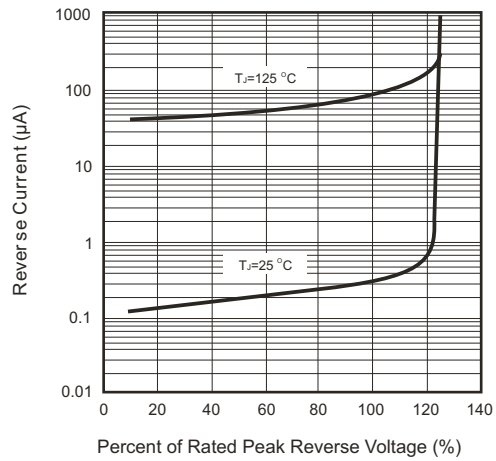


Fig.2 Forward Characteristics

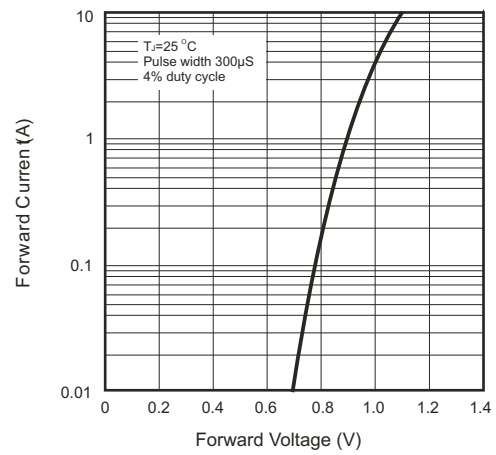


Fig.3 Junction Capacitance

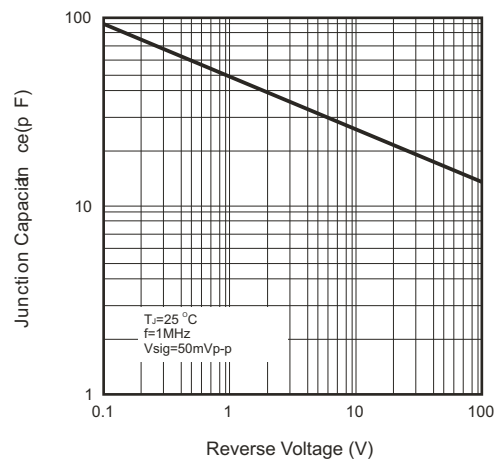


Fig.4 Current Derating Curve

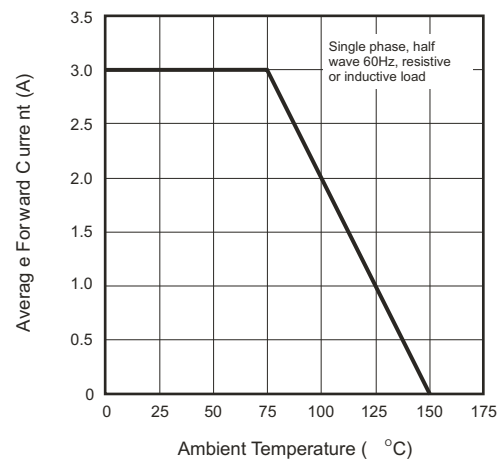
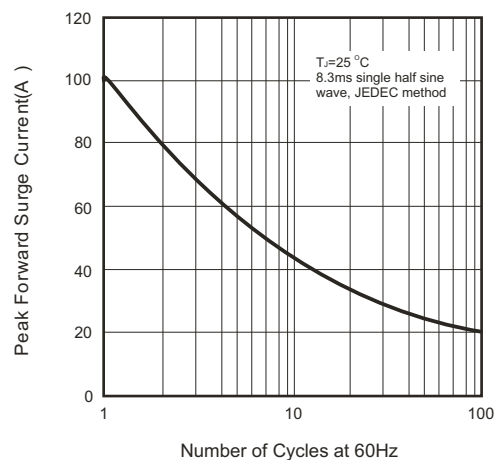


Fig.5 Non-repetitive Forward Surge Current



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