

# SMD General Purpose Rectifiers

## CGRC501-G Thru. CGRC507-G

Glass Passivated Type

Reverse Voltage: 50 to 1000 Volts

Forward Current: 5.0 Amp

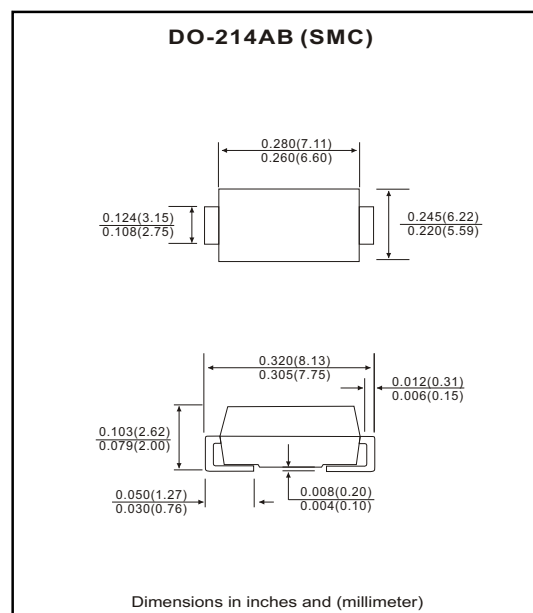
RoHS Device

### Features

- Ideal for surface mount applications.
- Easy pick and place.
- Plastic package has Underwriters Lab. flammability classification 94V-0.
- Built in strain relief.
- Low forward voltage drop.

### Mechanical data

- Case: JEDEC DO-214AB, molded plastic.
- Terminals: solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode end.
- Approx. weight: 0.21 grams



### Maximum Ratings and Electrical Characteristics

| Parameter                                                                                        | Symbol          | CGRC 501-G  | CGRC 502-G | CGRC 503-G | CGRC 504-G | CGRC 505-G | CGRC 506-G | CGRC 507-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                                                                     | $I_O$           | 5.0         |            |            |            |            |            |            | A             |
| Max. instantaneous forward voltage at 5.0A                                                       | $V_F$           | 1.15        |            |            |            |            |            |            | V             |
| Max. DC reverse current at $T_A=25^{\circ}C$ rated DC blocking voltage $T_A=125^{\circ}C$        | $I_R$           | 10<br>250   |            |            |            |            |            |            | $\mu A$       |
| 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<sup>2</sup> square (0.13mm thick) land area.

## RATING AND CHARACTERISTIC CURVES (CGRC501-G thru CGRC507-G)

Fig.1 Reverse Characteristics

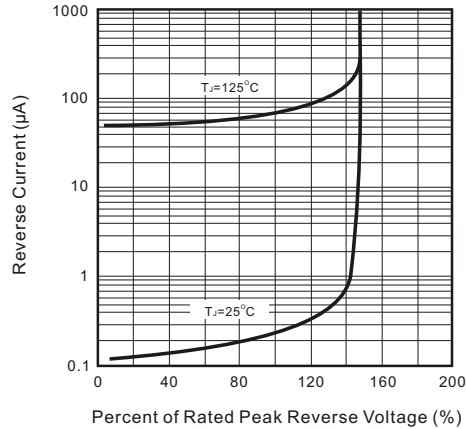


Fig.2 Forward Characteristics

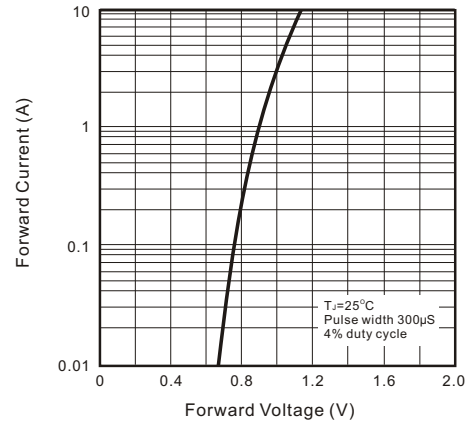


Fig.3 Non-repetitive Forward Surge Current

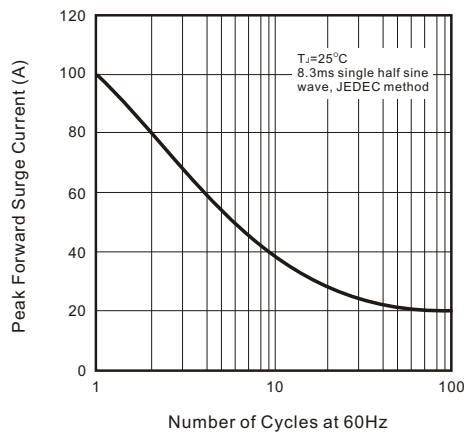


Fig.4 Current Derating Curve

