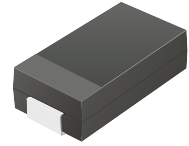


## CGRB201-G Thru. CGRB207-G

**Glass Passivated Type**  
**Reverse Voltage: 50 to 1000 Volts**  
**Forward Current: 2.0 Amp**  
**RoHS Device**

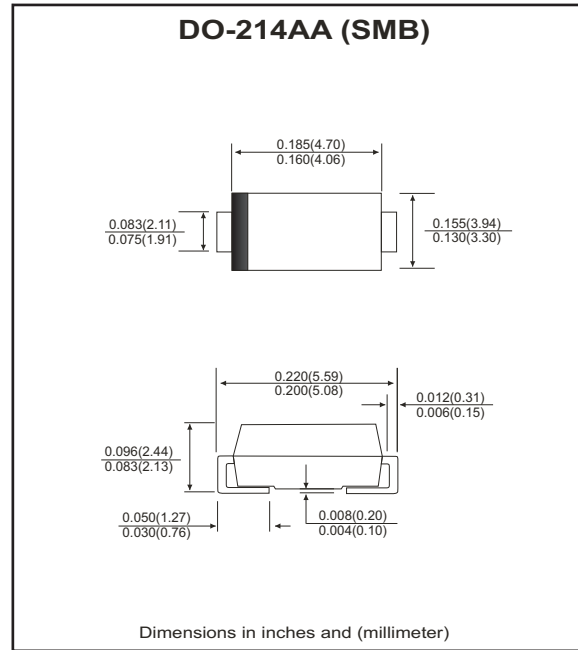


### Features

- 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 201-G  | CGRB 202-G | CGRB 203-G | CGRB 204-G | CGRB 205-G | CGRB 206-G | CGRB 207-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)                    | $I_{FSM}$       | 60          |            |            |            |            |            |            | A                  |
| Max. average forward current  | $I_o$           | 2.0         |            |            |            |            |            |            | A                  |
| Max. instantaneous forward voltage at 2.0A  | $V_F$           | 1.1         |            |            |            |            |            |            | V                  |
| Max. DC reverse current at $T_A=25\text{ }^\circ\text{C}$ rated DC blocking voltage $T_A=125\text{ }^\circ\text{C}$ | $I_R$           | 5.0<br>100  |            |            |            |            |            |            | $\mu\text{A}$      |
| Max. thermal resistance (Note 1)  | $R_{\theta JL}$ | 16          |            |            |            |            |            |            | $^\circ\text{C/W}$ |
| Max. operating junction temperature   | $T_J$           | 150         |            |            |            |            |            |            | $^\circ\text{C}$   |
| Storage temperature   | $T_{STG}$       | -55 to +150 |            |            |            |            |            |            | $^\circ\text{C}$   |

Notes: 1. Thermal resistance from junction to lead mounted on P.C.B. with 8.0×8.0 mm square (0.13mm thick) land area.

## RATING AND CHARACTERISTIC CURVES (CGRB201-G thru CGRB207-G)

Fig.1 Reverse Characteristics

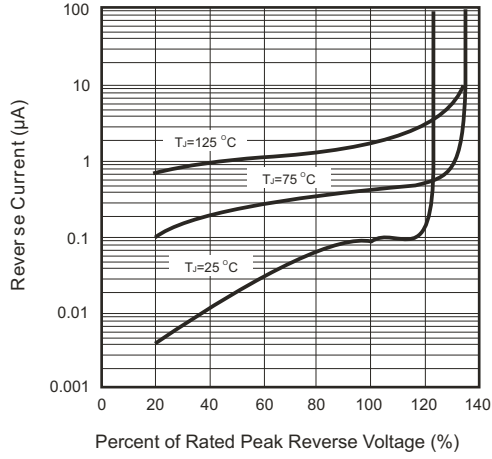


Fig.2 Forward Characteristics

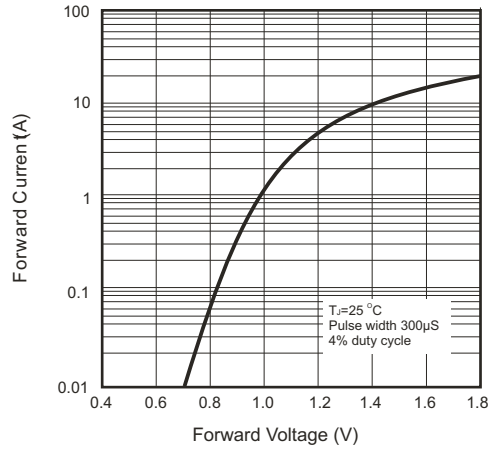


Fig.3 Junction Capacitance

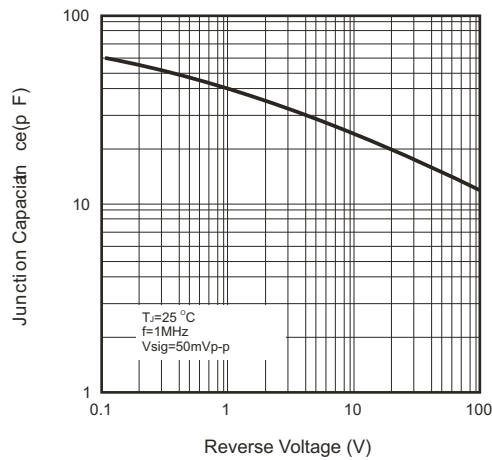


Fig.4 Current Derating Curve

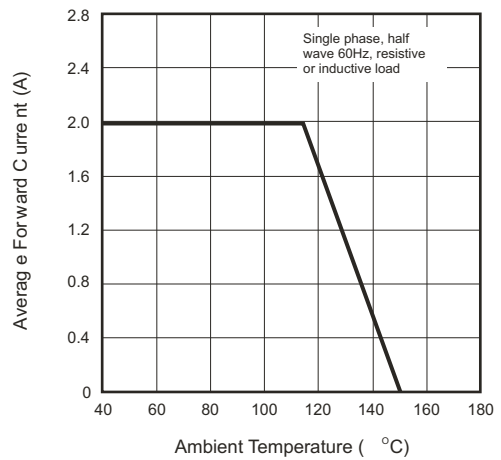
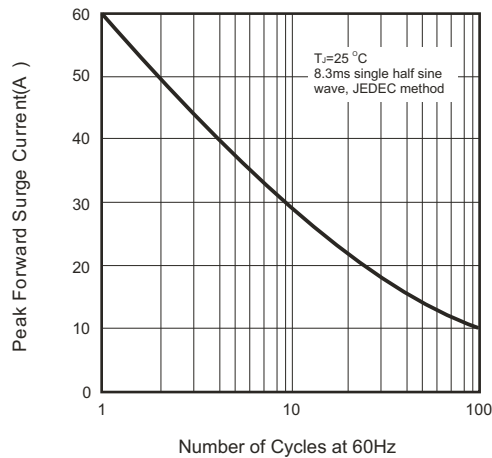
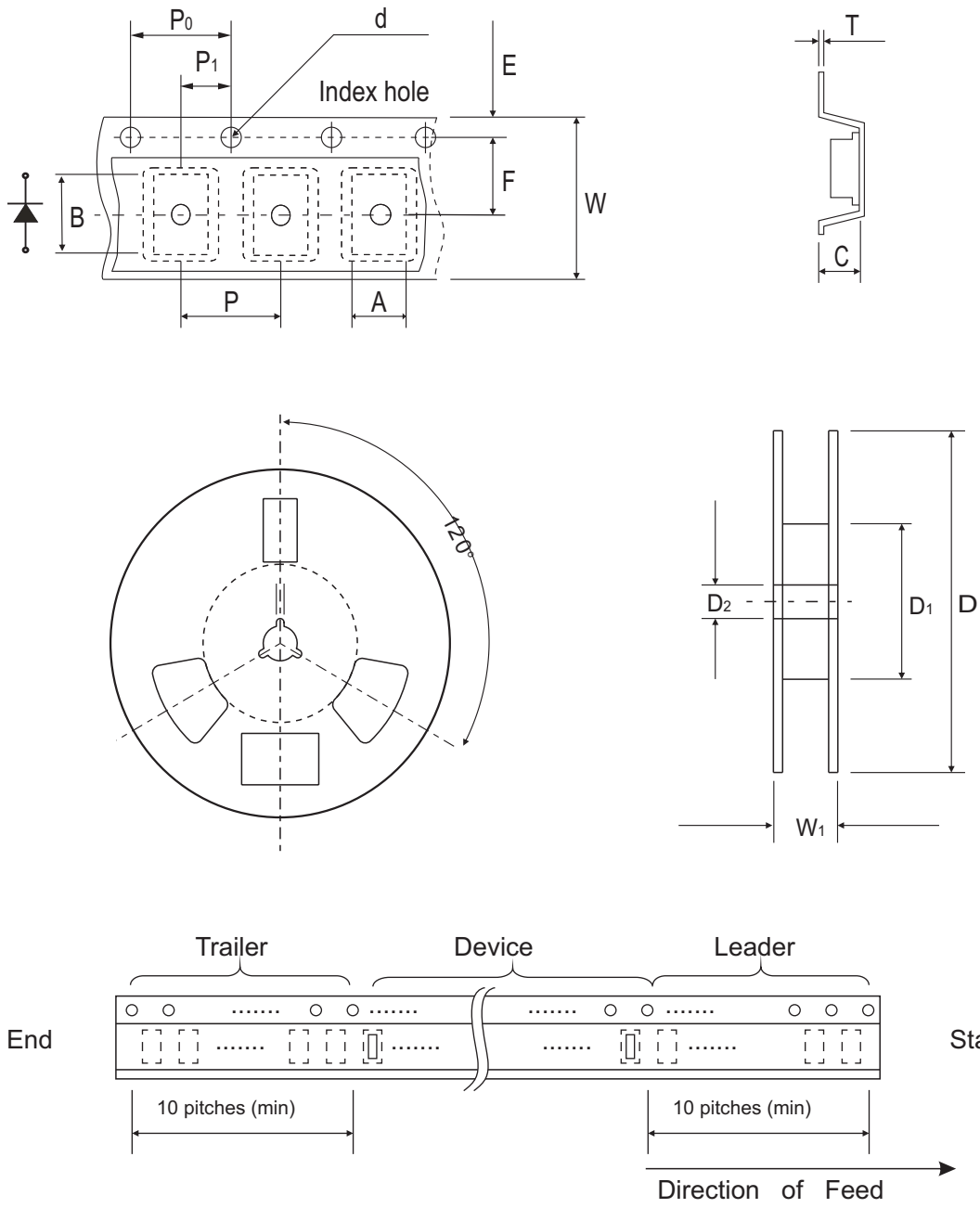


Fig.5 Non-repetitive Forward Surge Current



## Reel Taping Specification

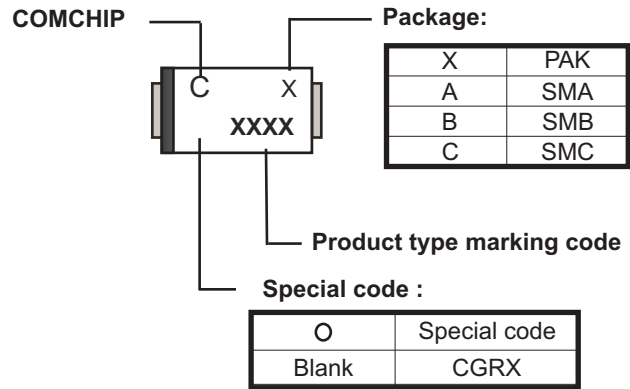


| DO-214AA<br>(SMB) | SYMBOL | A          | B          | C          | d                            | D             | D1         | D2            | E             |
|-------------------|--------|------------|------------|------------|------------------------------|---------------|------------|---------------|---------------|
|                   | (mm)   | 4.00 MAX.  | 5.90 MAX.  | 3.00 MAX.  | 1.50 ± 0.10 <sub>DIA</sub>   | 330 ± 2.00    | 50.0 MIN.  | 13.50 ± 1.0   | 1.75 ± 0.1    |
|                   | (inch) | 0.157 MAX. | 0.232 MAX. | 0.118 MAX. | 0.059 ± 0.004 <sub>DIA</sub> | 12.99 ± 0.079 | 1.969 MIN. | 0.531 ± 0.039 | 0.069 ± 0.004 |

| DO-214AA<br>(SMB) | SYMBOL | F             | P             | P0            | P1            | T             | W             | W1        | W2        |
|-------------------|--------|---------------|---------------|---------------|---------------|---------------|---------------|-----------|-----------|
|                   | (mm)   | 5.50 ± 0.05   | 8.00 ± 0.10   | 4.00 ± 0.10   | 2.00 ± 0.05   | 0.60 MAX      | 12.0 ± 0.30   | 18.4 MAX. | 14.4 MAX. |
|                   | (inch) | 0.217 ± 0.002 | 0.315 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.004 | 0.236 ± 0.004 | 0.472 ± 0.012 | 0.724 MAX | 0.566 MAX |

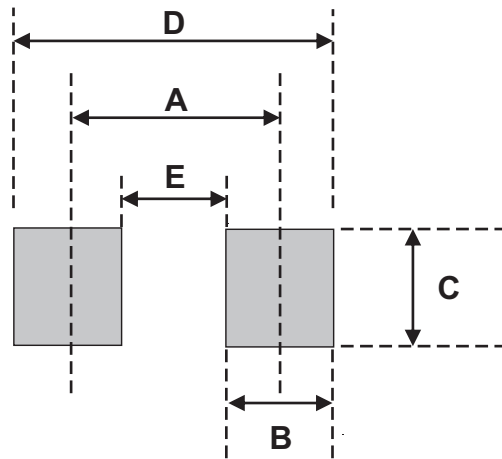
## Marking Code

| Part Number | Marking Code |
|-------------|--------------|
| CGRB201-G   | 201          |
| CGRB202-G   | 202          |
| CGRB203-G   | 203          |
| CGRB204-G   | 204          |
| CGRB205-G   | 205          |
| CGRB206-G   | 206          |
| CGRB207-G   | 207          |



## Suggested PAD Layout

| SIZE | SMB  |        |
|------|------|--------|
|      | (mm) | (inch) |
| A    | 4.30 | 0.169  |
| B    | 2.50 | 0.098  |
| C    | 2.30 | 0.091  |
| D    | 6.80 | 0.268  |
| E    | 1.80 | 0.071  |



## Standard Packaging

| Case Type      | Qty Per Reel | Reel Size |
|----------------|--------------|-----------|
|                | (Pcs)        | (inch)    |
| DO-214AA (SMB) | 3,000        | 13        |