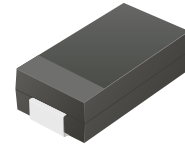


## CDBB320-G Thru. CDBB3100-G

Reverse Voltage: 20 to 100 Volts

Forward Current: 3.0 Amp

RoHS Device

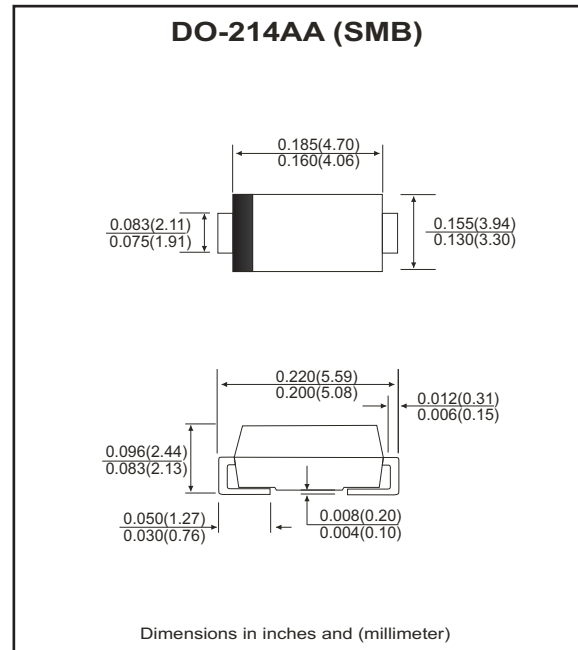


### Features

- 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-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                               | CDBB<br>320-G | CDBB<br>340-G | CDBB<br>360-G | CDBB<br>380-G | CDBB<br>3100-G | Units |
|--------------------------------------------------------------------------------------------------------|--------------------------------------|---------------|---------------|---------------|---------------|----------------|-------|
| Max. repetitive peak reverse voltage                                                                   | V <sub>RRM</sub>                     | 20            | 40            | 60            | 80            | 100            | V     |
| Max. DC blocking voltage                                                                               | V <sub>DC</sub>                      | 20            | 40            | 60            | 80            | 100            | V     |
| Max. RMS voltage                                                                                       | V <sub>RMS</sub>                     | 14            | 28            | 42            | 56            | 70             | V     |
| Peak surge forward current, 8.3ms<br>single half sine-wave superimposed<br>on rate load (JEDEC method) | I <sub>FSM</sub>                     | 80            |               |               |               |                | A     |
| Max. average forward current                                                                           | I <sub>O</sub>                       | 3.0           |               |               |               |                | A     |
| Max. instantaneous forward voltage at<br>3.0A                                                          | V <sub>F</sub>                       | 0.50          |               | 0.70          | 0.85          |                | V     |
| Max. DC reverse current at T <sub>A</sub> =25 °C<br>rated DC blocking voltage T <sub>A</sub> =100 °C   | I <sub>R</sub>                       | 0.5           |               |               |               |                | mA    |
|                                                                                                        |                                      | 20            |               |               | 10            |                |       |
| Max. thermal resistance (Note 1)                                                                       | R <sub>θJA</sub><br>R <sub>θJL</sub> | 50<br>10      |               |               |               |                | °C/W  |
| Max. operating junction temperature                                                                    | T <sub>J</sub>                       | 125           |               |               |               |                | °C    |
| Storage temperature                                                                                    | T <sub>STG</sub>                     | -65 to +150   |               |               |               |                | °C    |

Notes: 1. Thermal resistance from junction to ambient and junction to lead mounted on P.C.B. with 0.2×0.2 inch copper pad area.

## RATING AND CHARACTERISTIC CURVES (CDBB320-G Thru. CDBB3100-G)

Fig.1 Reverse Characteristics

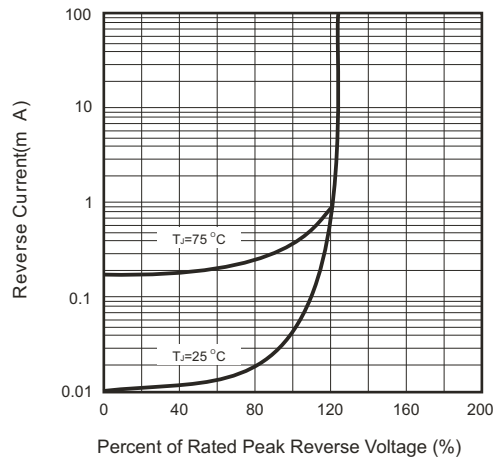


Fig.2 Forward Characteristics

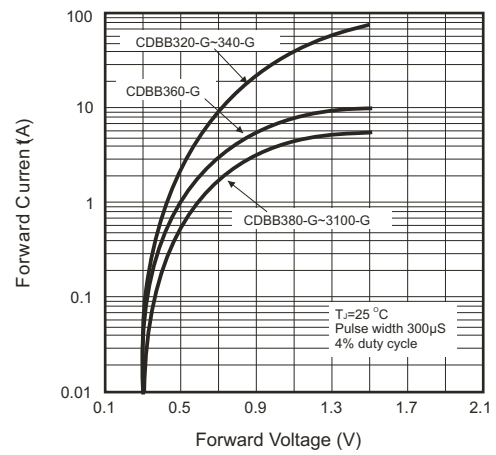


Fig.3 Junction Capacitance

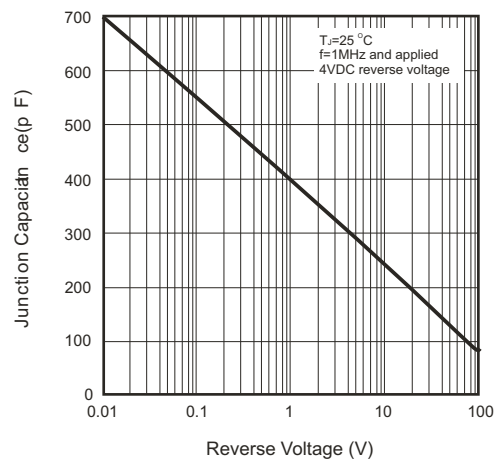


Fig.4 Current Derating Curve

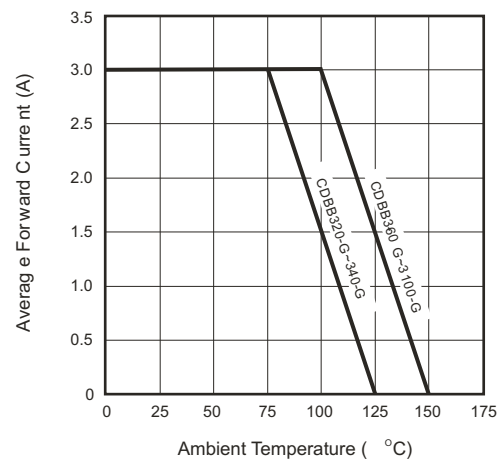
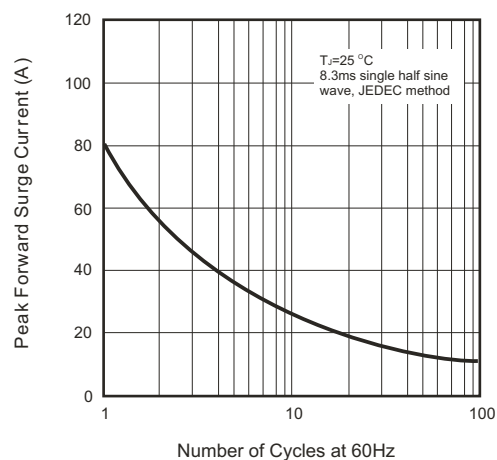
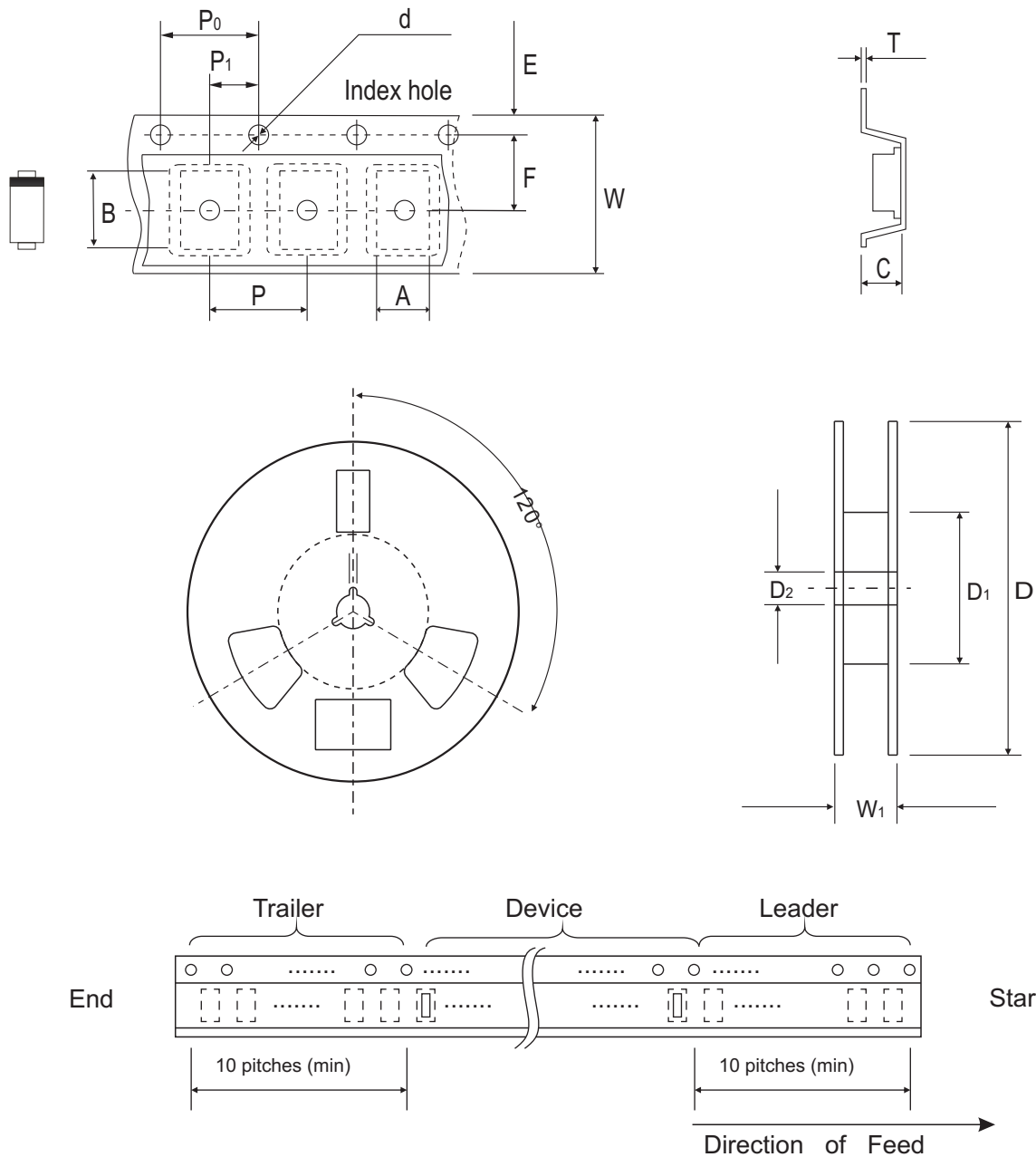


Fig.5 Non-repetitive Forward Surge Current



## Reel Taping Specification

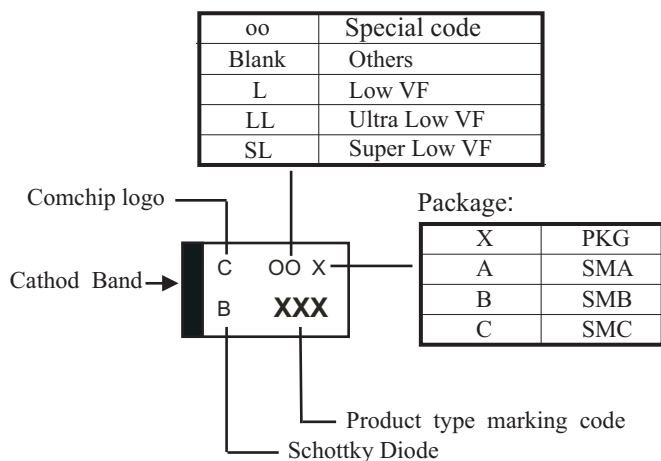


| DO-214AA<br>(SMB) | SYMBOL | A          | B          | C          | d                       | D                 | D1         | D2                |
|-------------------|--------|------------|------------|------------|-------------------------|-------------------|------------|-------------------|
|                   | (mm)   | 4.00 MAX.  | 5.90 MAX.  | 3.00 MAX.  | $1.50 \pm 0.10_{DIA}$   | $330 \pm 2.00$    | 50.0 MIN.  | $13.50 \pm 1.0$   |
|                   | (inch) | 0.157 MAX. | 0.232 MAX. | 0.118 MAX. | $0.059 \pm 0.004_{DIA}$ | $12.99 \pm 0.079$ | 1.969 MIN. | $0.531 \pm 0.039$ |

| DO-214AA<br>(SMB) | SYMBOL | E                 | F                 | P                 | $P_0$             | $P_1$             | T                 | W                 | $W_1$     |
|-------------------|--------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----------|
|                   | (mm)   | $1.75 \pm 0.10$   | $5.50 \pm 0.05$   | $8.00 \pm 0.10$   | $4.00 \pm 0.10$   | $2.00 \pm 0.05$   | 0.60 MAX          | $12.0 \pm 0.30$   | 18.4 MAX. |
|                   | (inch) | $0.069 \pm 0.004$ | $0.217 \pm 0.002$ | $0.315 \pm 0.004$ | $0.157 \pm 0.004$ | $0.079 \pm 0.004$ | $0.236 \pm 0.004$ | $0.472 \pm 0.012$ | 0.724 MAX |

## Marking Code

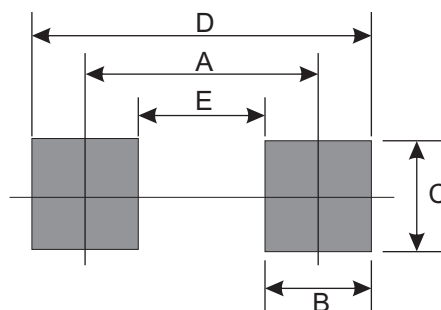
| Part Number | Marking Code |
|-------------|--------------|
| CDBB320-G   | 320          |
| CDBB340-G   | 340          |
| CDBB360-G   | 360          |
| CDBB380-G   | 380          |
| CDBB3100-G  | 3100         |



**xxx/xxxx = Product type marking code**

## Suggested PAD Layout

| SIZE | DO-214AA(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     | REEL PACK       |                     |
|---------------|-----------------|---------------------|
|               | REEL<br>( pcs ) | Reel Size<br>(inch) |
| DO-214AA(SMB) | 3,000           | 13                  |