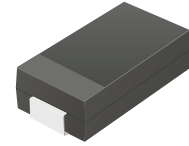


## CDBB220-G Thru. CDBB2100-G

Reverse Voltage: 20 to 100 Volts

Forward Current: 2.0 Amp

RoHS Device

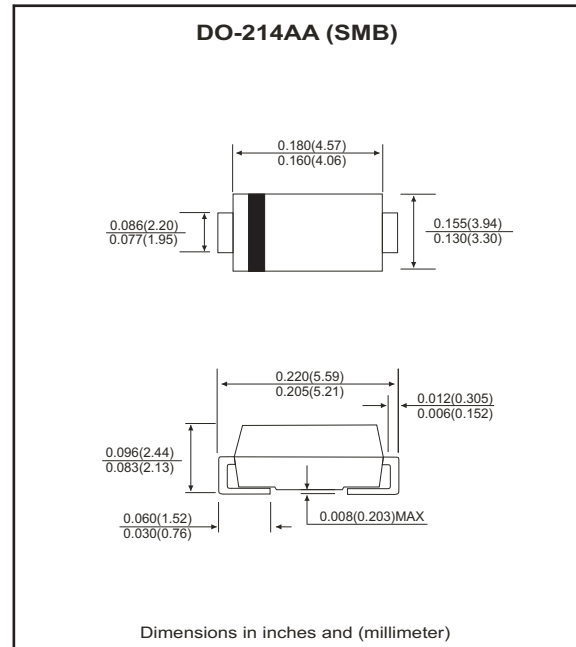


### Features

- Ideal for surface mount applications.
- Metal-semiconductor Junction with Guarding.
- Epitaxial construction.
- Very low forward voltage drop.
- High current capability.
- For use in low voltage, high frequency in venters, free wheeling, and polarity protection applications.
- Plastic package has Underwriters Lab. flammability classification 94V-0.
- High temperature soldering guaranteed: 250°C /10 seconds at terminals.

### Mechanical data

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



### Circuit Diagram



### Maximum Ratings and Electrical Characteristics

Ratings at Ta=25°C unless otherwise noted.  
Single phase, half wave, 60Hz, resistive or inductive loaded.  
For capacitive load, derate current by 20% .

| Parameter  | Symbol            | CDBB 220-G  | CDBB 240-G | CDBB 260-G | CDBB 280-G | CDBB 2100-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 single half sine-wave superimposed on rate load (JEDEC method) | I <sub>FSM</sub>  | 50          |            |            |            |             | A     |
| Max. average forward current   | I <sub>(AV)</sub> | 2.0         |            |            |            |             | A     |
| Max. instantaneous forward voltage at 2.0A DC  | V <sub>F</sub>    | 0.55        |            | 0.75       |            | 0.85        | V     |
| Max. DC reverse current at rated DC blocking voltage (Note 1)                                    | I <sub>R</sub>    | 0.5<br>15.0 |            |            |            |             | mA    |
| Typical. Junction Capacitance (Note 1)   | C <sub>J</sub>    | 75          |            |            |            |             | pF    |
| Typical. Thermal resistance (Note 2)   | R <sub>θJL</sub>  | 15          |            |            |            |             | °C/W  |
| Operating junction temperature   | T <sub>J</sub>    | -55 to +125 |            |            |            |             | °C    |
| Storage temperature  | T <sub>STG</sub>  | -65 to +150 |            |            |            |             | °C    |

Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
2. Thermal resistance junction to lead.

Company reserves the right to improve product design , functions and reliability without notice.

REV:C

## RATING AND CHARACTERISTIC CURVES (CDBB220-G Thru CDBB2100-G)

Fig.1 - Forward Current Derating Curve

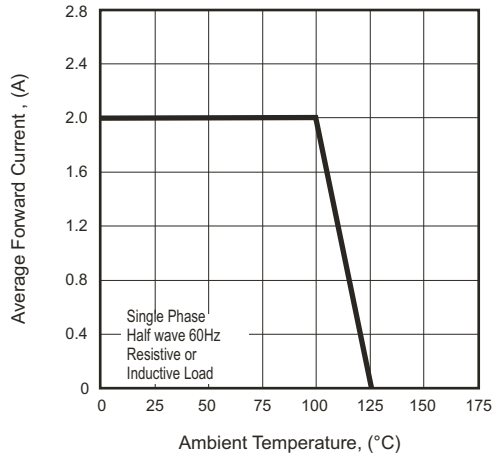


Fig.2 - Maximum Non-Repetitive Forward Surge Current

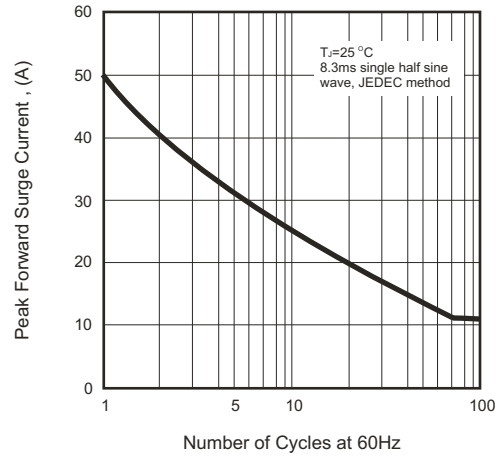


Fig.3 - Typical Instantaneous Forward Characteristics

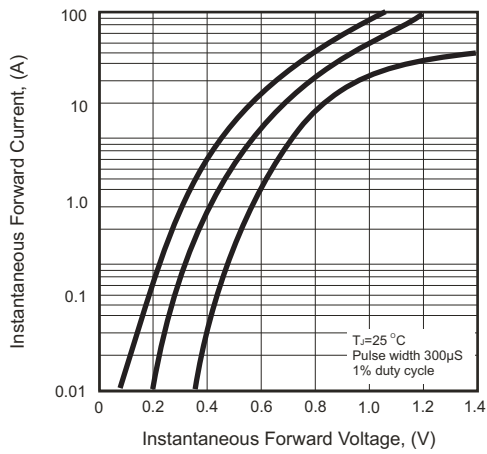


Fig.4 - Typical Junction Capacitance

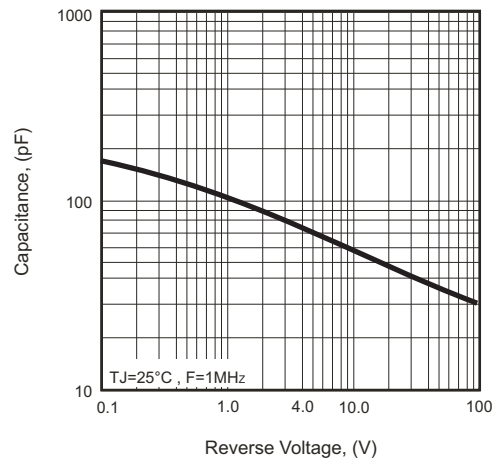
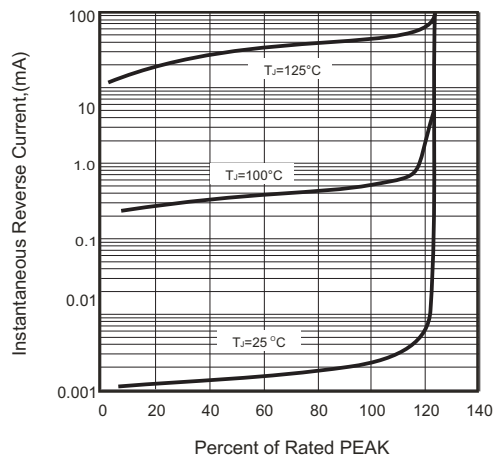
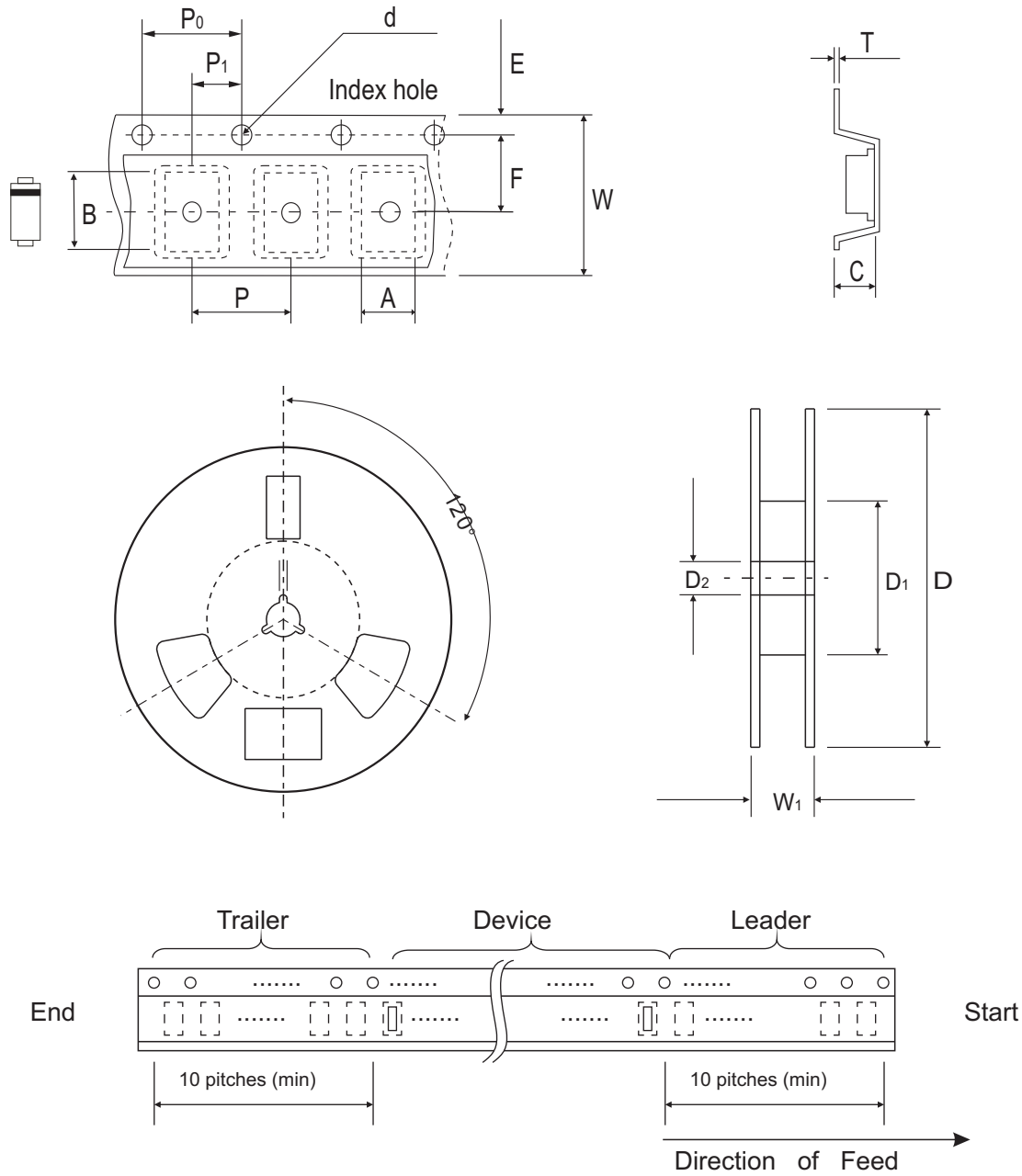


Fig.5 - Typical Reverse Characteristics



## Reel Taping Specification



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

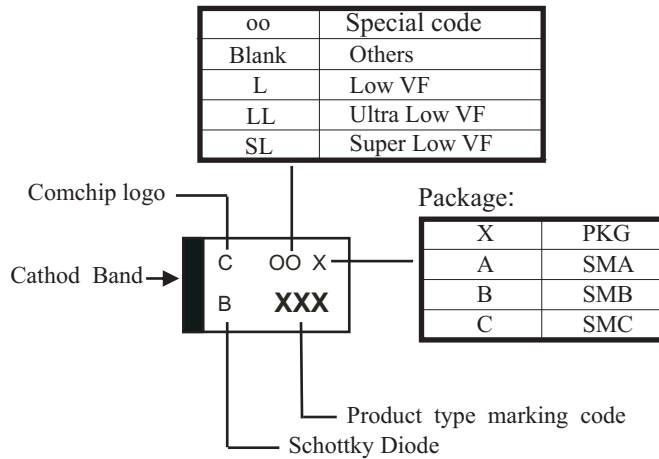
| DO-214AA(SMB) | SYMBOL | E              | F             | P             | P0            | P1            | T             | W             | W1        |
|---------------|--------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------|
|               | (mm)   | 1.75 ± 0.10    | 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. |
|               | (inch) | 0.0699 ± 0.004 | 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 |

Company reserves the right to improve product design, functions and reliability without notice.

REV:C

## Marking Code

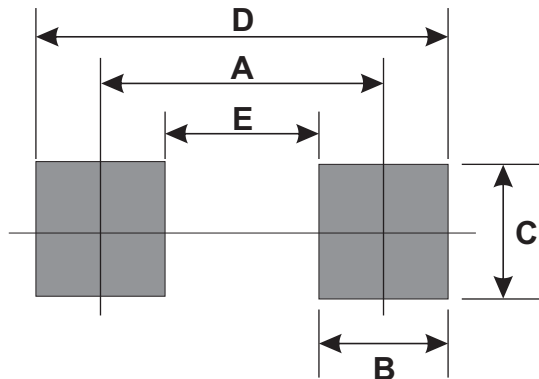
| Part Number | Marking Code |
|-------------|--------------|
| CDBB220-G   | 220          |
| CDBB240-G   | 240          |
| CDBB260-G   | 260          |
| CDBB280-G   | 280          |
| CDBB2100-G  | 2100         |



xxx/xxxx = Product type marking code

## 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      | REEL PACK    |                  |
|----------------|--------------|------------------|
|                | REEL ( pcs ) | Reel Size (inch) |
| DO-214AA (SMB) | 3,000        | 13               |