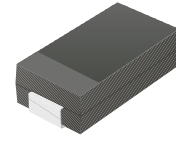


## CDBB220-G Thru. CDBB2100-G

Reverse Voltage: 20 to 100 Volts

Forward Current: 2.0 Amp

RoHS Device

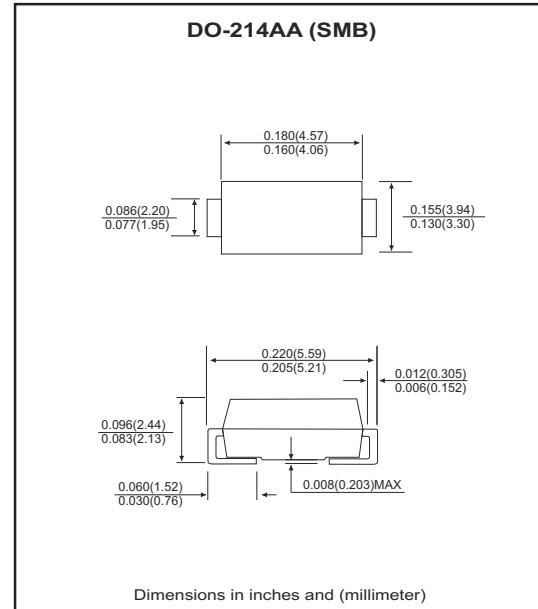


### Features

- 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 inverters, 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.
- Halogen free.

### Mechanical data

- Case: JEDEC DO-214AA (SMB), 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

Ratings at  $T_A=25^\circ\text{C}$  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	$V_{RRM}$	20	40	60	80	100	V
Max. DC blocking voltage	$V_{DC}$	20	40	60	80	100	V
Max. RMS voltage	$V_{RMS}$	14	28	42	56	70	V
Peak surge forward current, 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	50					A
Max. average forward current	$I_{(AV)}$	2.0					A
Max. instantaneous forward voltage at 2.0A DC	$V_F$	0.55		0.75		0.85	V
Max. DC reverse current at rated DC blocking voltage (Note 1)	$I_R$	0.5 15.0					mA
Typical. Junction Capacitance (Note 1)	$C_J$	75					pF
Typical. Thermal resistance (Note 2)	$R_{\theta JL}$	15					$^\circ\text{C}/\text{W}$
Max. operating junction temperature	$T_J$	-55 to +125					$^\circ\text{C}$
Storage temperature	$T_{STG}$	-65 to +150					$^\circ\text{C}$

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

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

Fig.1 - Forward Current Derating Curve

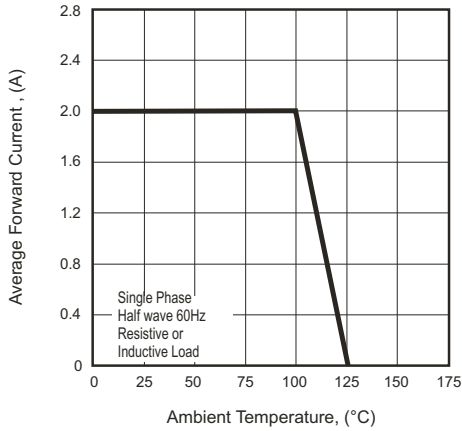


Fig.2 - Maximum Non-Repetitive Forward Surge Current

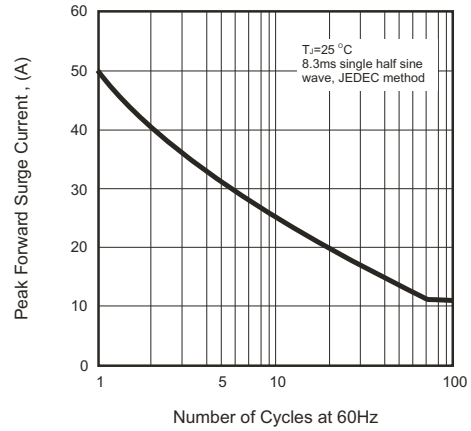


Fig.3 - Typical Instantaneous Forward Characteristics

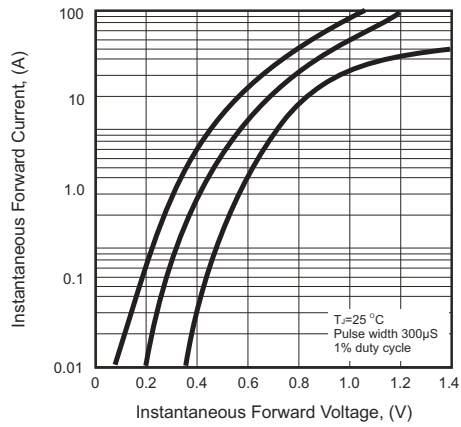


Fig.4 - Typical Junction Capacitance

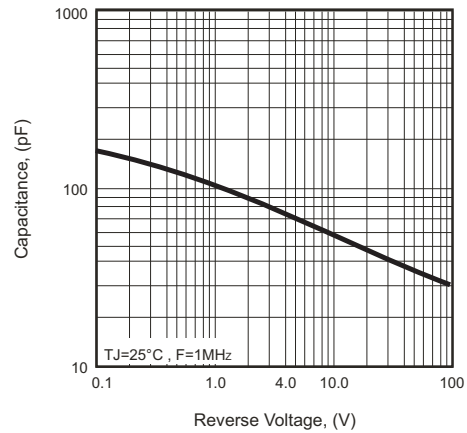
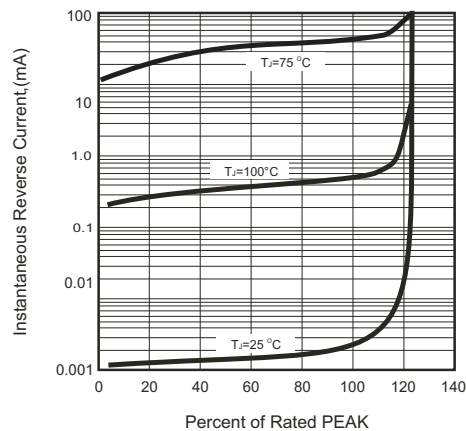
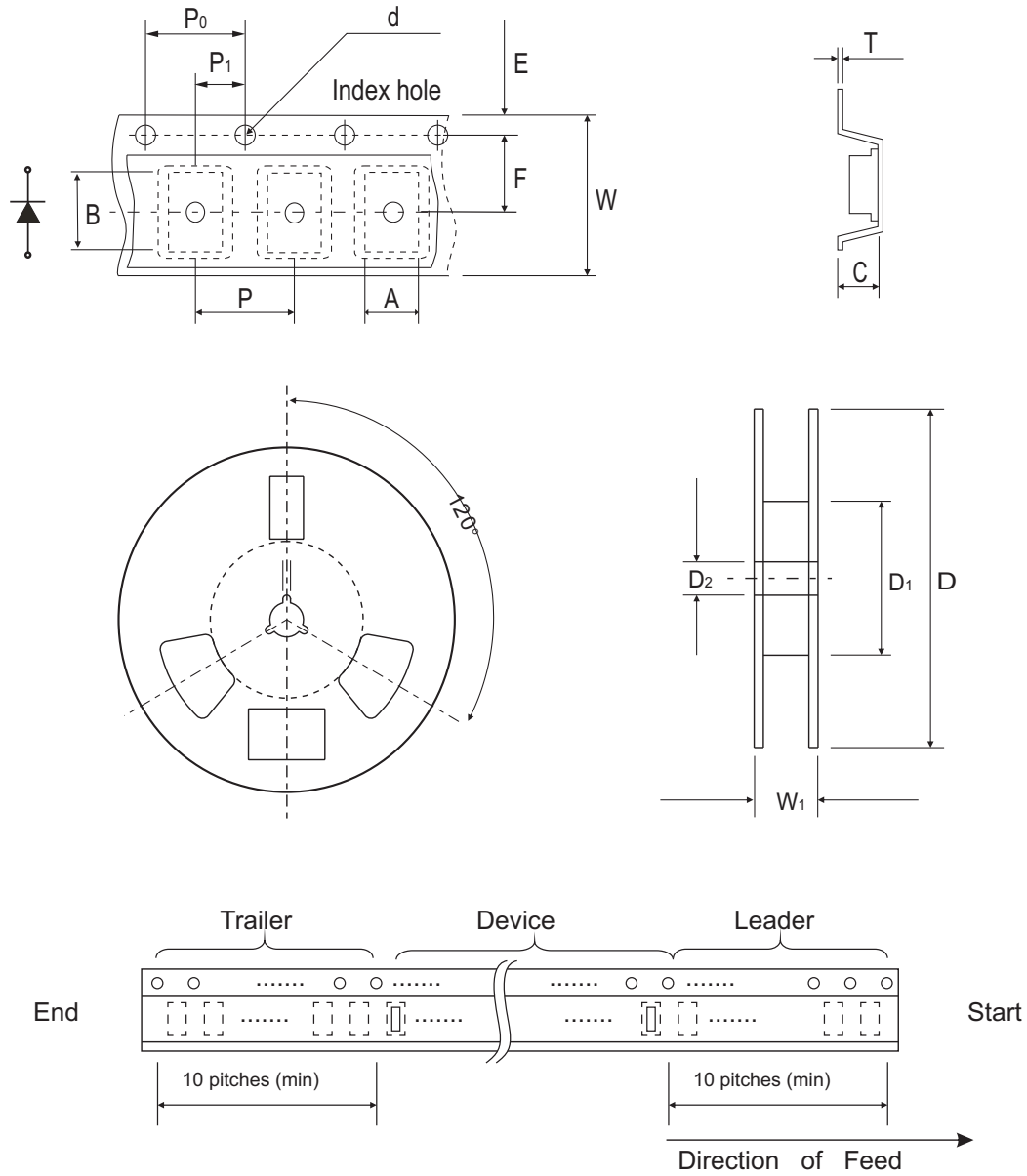


Fig.5 - Typical Reverse Characteristics



## Reel Taping Specification

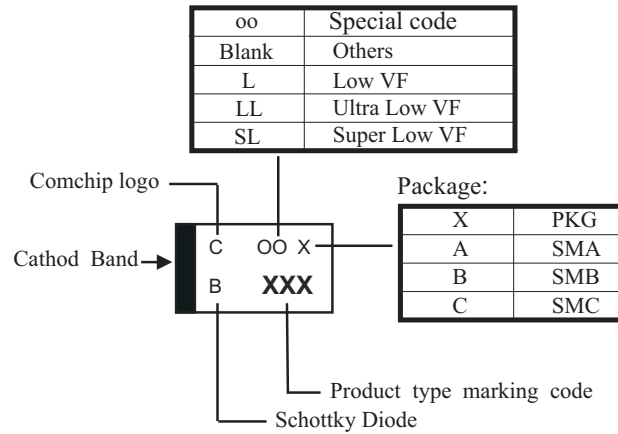


DO-214AA(SMB)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	4.00 MAX.	5.90 MAX.	3.00 MAX.	1.50 ± 0.10 <sub>DIA</sub>	330 ± 2.00	50.0 MIN.	13.50 ± 1.0
	(inch)	0.157 MAX.	0.232 MAX.	0.118 MAX.	0.059 ± 0.004 <sub>DIA</sub>	12.99 ± 0.079	1.969 MIN.	0.531 ± 0.039

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

## Marking Code

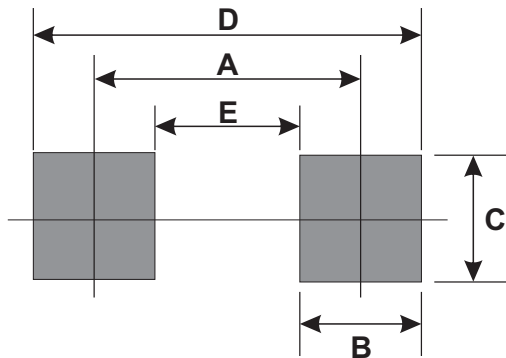
Part Number	Marking Code
CDBB220-G	220
CDBB240-G	240
CDBB260-G	260
CDBB2100-G	2100
CDBB2150-G	2150
CDBB2200-G	2200



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