

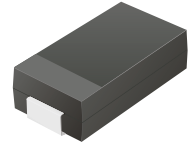
## CDBB520-HF Thru. CDBB5100-HF

Reverse Voltage: 20 to 100 Volts

Forward Current: 5.0 Amp

RoHS Device

Halogen Free

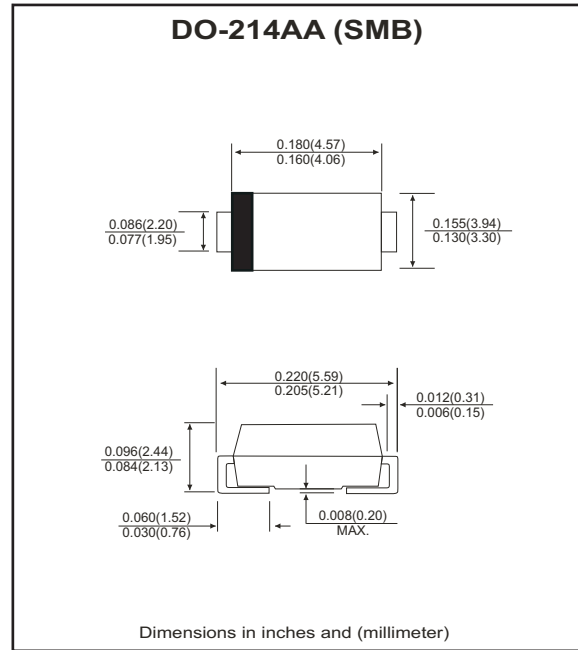


### Features

- Ideal for surface mount applications.
- For use in low voltage, high frequency inverters.
- Epitaxial construction.
- Metal-semiconductor junction with guarding.
- High current capability.
- 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 520-HF	CDBB 530-HF	CDBB 540-HF	CDBB 550-HF	CDBB 560-HF	CDBB 580-HF	CDBB 5100-HF	Units	
Max. repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	V	
Max. DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	100	V	
Max. RMS voltage	$V_{RMS}$	14	21	28	35	42	56	70	V	
Peak surge forward current, 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	175								A
Max. average forward rectified current at $T_L=90^{\circ}C$	$I_{(AV)}$	5.0								A
Max. instantaneous forward voltage at 5.0A DC @ $T_c=100^{\circ}C$	$V_F$	0.55			0.70				V	
Max. DC reverse current at $T_J=25^{\circ}C$ rated DC blocking voltage $T_J=100^{\circ}C$	$I_R$	0.5 20								mA
Max. operating junction temperature	$C_J$	300								PF
Max. thermal resistance	$R_{\theta JA}$ $R_{\theta JL}$	50 10								$^{\circ}C/W$
Max. operating junction temperature	$T_J$	-55 to +125								$^{\circ}C$
Storage temperature	$T_{STG}$	-55 to +150								$^{\circ}C$

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

## RATING AND CHARACTERISTIC CURVES (CDBB520-HF thru CDBB5100-HF)

Fig.1 - Forward Current Derating Curve

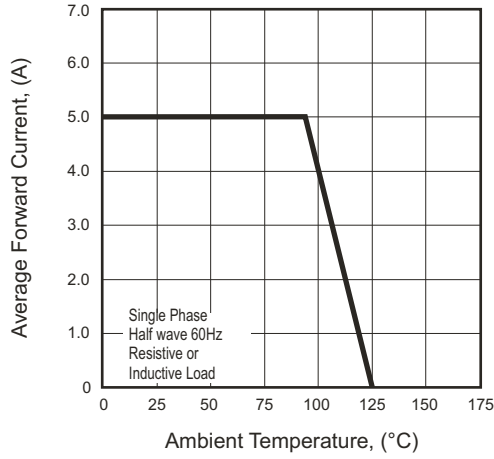


Fig.2 - Maximum Non-Repetitive Surge Current

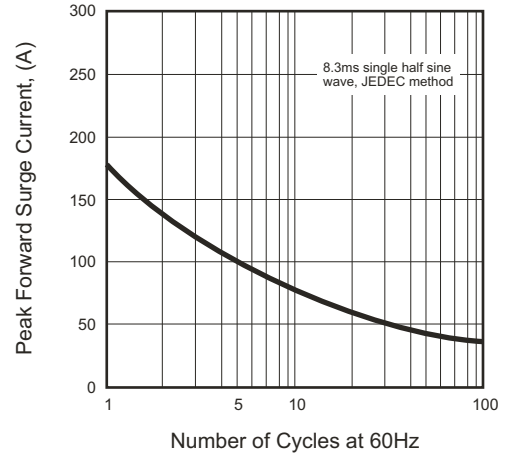


Fig.3 - Typical Instantaneous Forward Characteristics

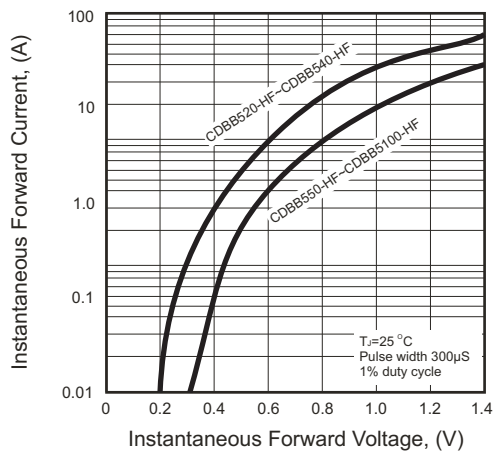


Fig.4 - Typical Junction Capacitance

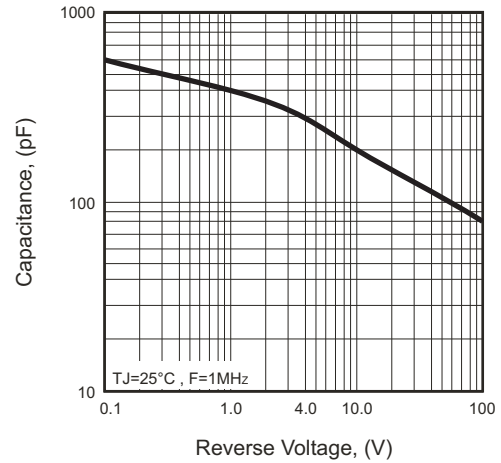
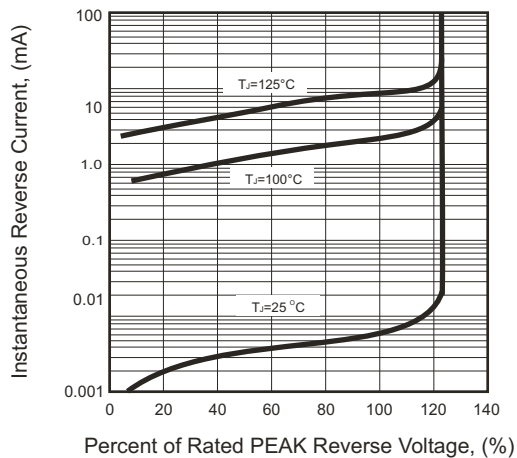
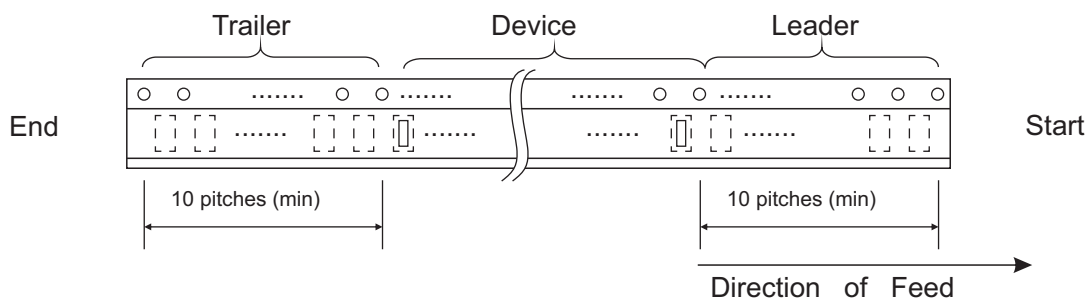
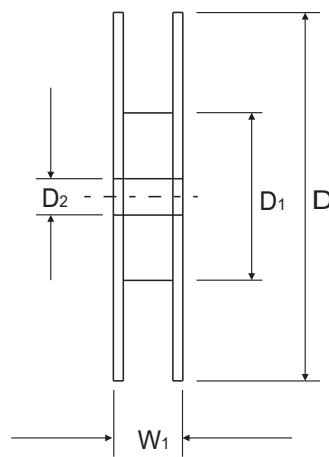
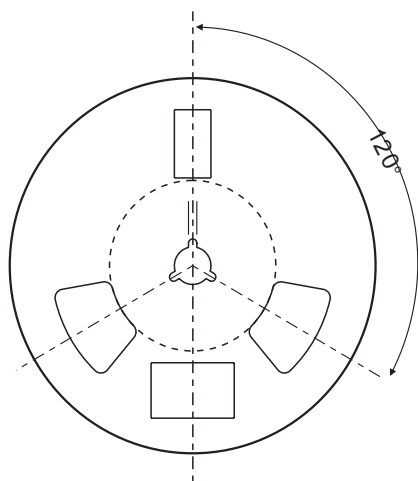
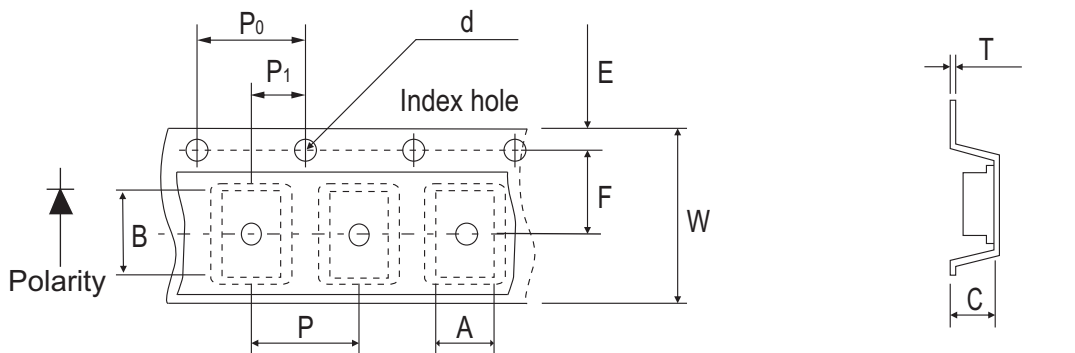


Fig.5 - Typical Reverse Characteristics



## Reel Taping Specification

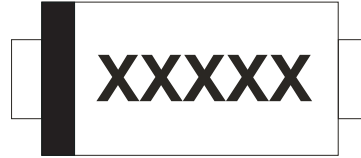


DO-214AA (SMB)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	4.00 MAX.	5.90 MAX.	3.00 MAX.	1.50 ± 0.10 <sub>DIA</sub>	330 ± 2.00	50.0 MIN.	13.50 ± 1.0
	(inch)	0.157 MAX.	0.232 MAX.	0.118 MAX.	0.059 ± 0.004 <sub>DIA</sub>	12.99 ± 0.079	1.969 MIN.	0.531 ± 0.039

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)	0.069 ± 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

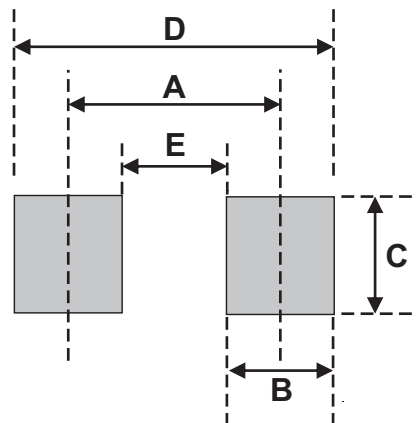
Part Number	Marking Code
CDBB520-HF	SS52
CDBB530-HF	SS53
CDBB540-HF	SS54
CDBB550-HF	SS55
CDBB560-HF	SS56
CDBB580-HF	SS58
CDBB5100-HF	SS510



xxxxx = 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 ( pcs )	Reel Size (inch)
DO-214AA (SMB)	3,000	13