

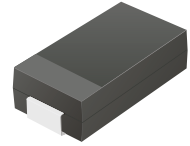
CDBB540-HF Thru. CDBB5100-HF

Reverse Voltage: 40 to 100 Volts

Forward Current: 5.0 Amp

RoHS Device

Halogen Free



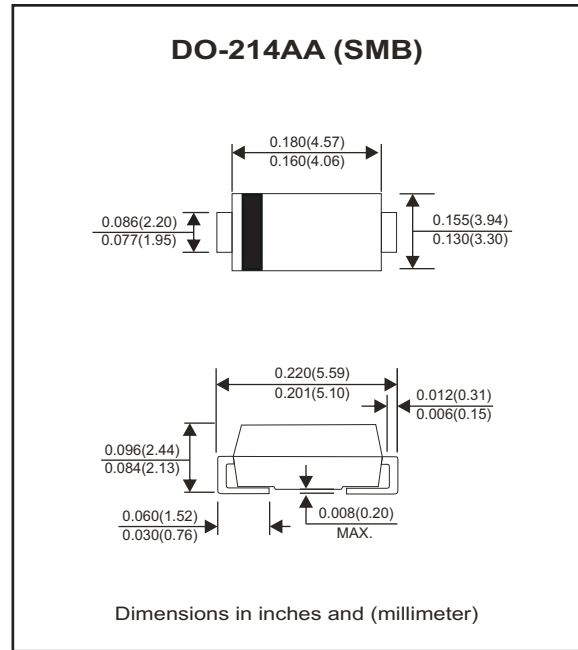
Features

- Ideal for surface mount applications.
- Ideal for automated placement.
- Guard ring for over voltage protection.
- Low forward voltage drop.
- Comply with AEC-Q101

Mechanical data

- Case: DO-214AA(SMB), Molded plastic.
- Case material: Molded plastic. UL flammability classification rating 94V-0
- Terminals: Lead Free plating(Tin finish). Solderable per MIL-STD-202, method 208.
- Polarity: Cathode Band.
- Weight: 0.095 grams(approx).

Circuit diagram



Maximum Ratings and Electrical Characteristics

Parameter	Symbol	CDBB540-HF	CDBB560-HF	CDBB5100-HF	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	40	60	100	V
Maximum DC blocking voltage	V_{DC}	40	60	100	V
Maximum RMS voltage	V_{RMS}	28	42	70	V
Maximum average forward rectified current	I_F	5.0			A
Peak surge forward current, 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	100			A
Maximum instantaneous forward voltage $I_F=5.0A @ 25^{\circ}C$	V_F	0.55	0.70	0.85	V
Maximum DC reverse current @ $T_C=25^{\circ}C$ at rated DC blocking voltage @ $T_C=100^{\circ}C$	I_R	0.5 10		0.2 5.0	mA
Typical junction capacitance (Note1)	C_J	300	210	170	pF
Typical thermal resistance (Note2)	$R_{\theta JA}$ $R_{\theta JL}$	80 50			$^{\circ}C/W$
Operating temperature range	T_J	-55 to +125		-55 to +150	$^{\circ}C$
Storage temperature range	T_{STG}	-55 to +150			$^{\circ}C$

Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Device mounted on FR-R substrate, 1**1", 2oz, single-side, PC boards with 0.1**0.15" copper pad.

RATING AND CHARACTERISTIC CURVES (CDBB540-HF Thru. CDBB5100-HF)

Fig.1 - Typical Forward Current Derating Curve

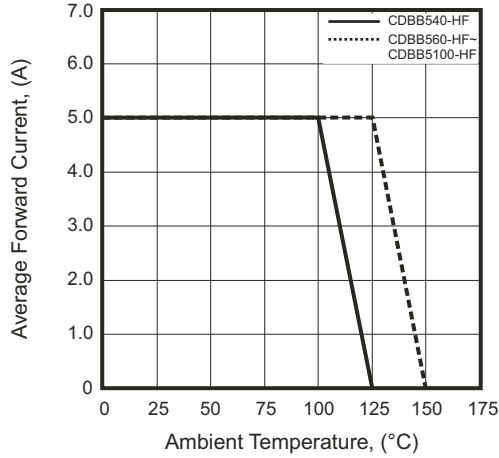


Fig.2 - Typical Forward Characteristics

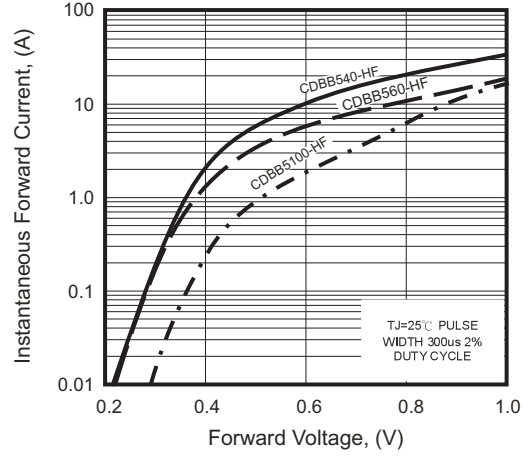


Fig.3 - Maximum Non-Repetitive Forward Surge Current

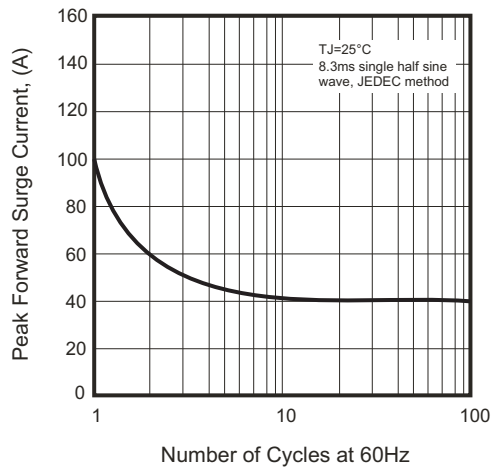


Fig.4 - Typical Reverse Characteristics

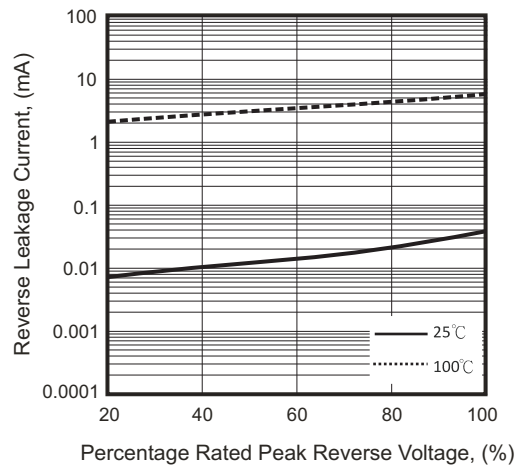
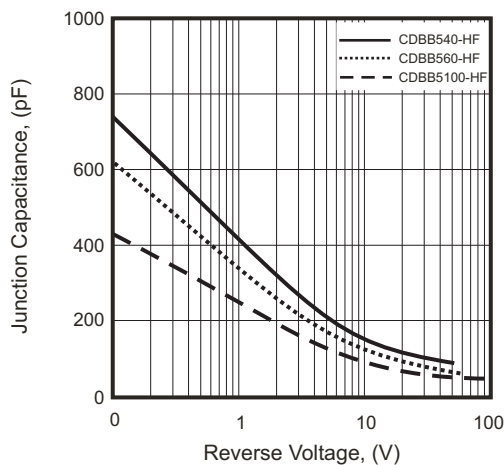
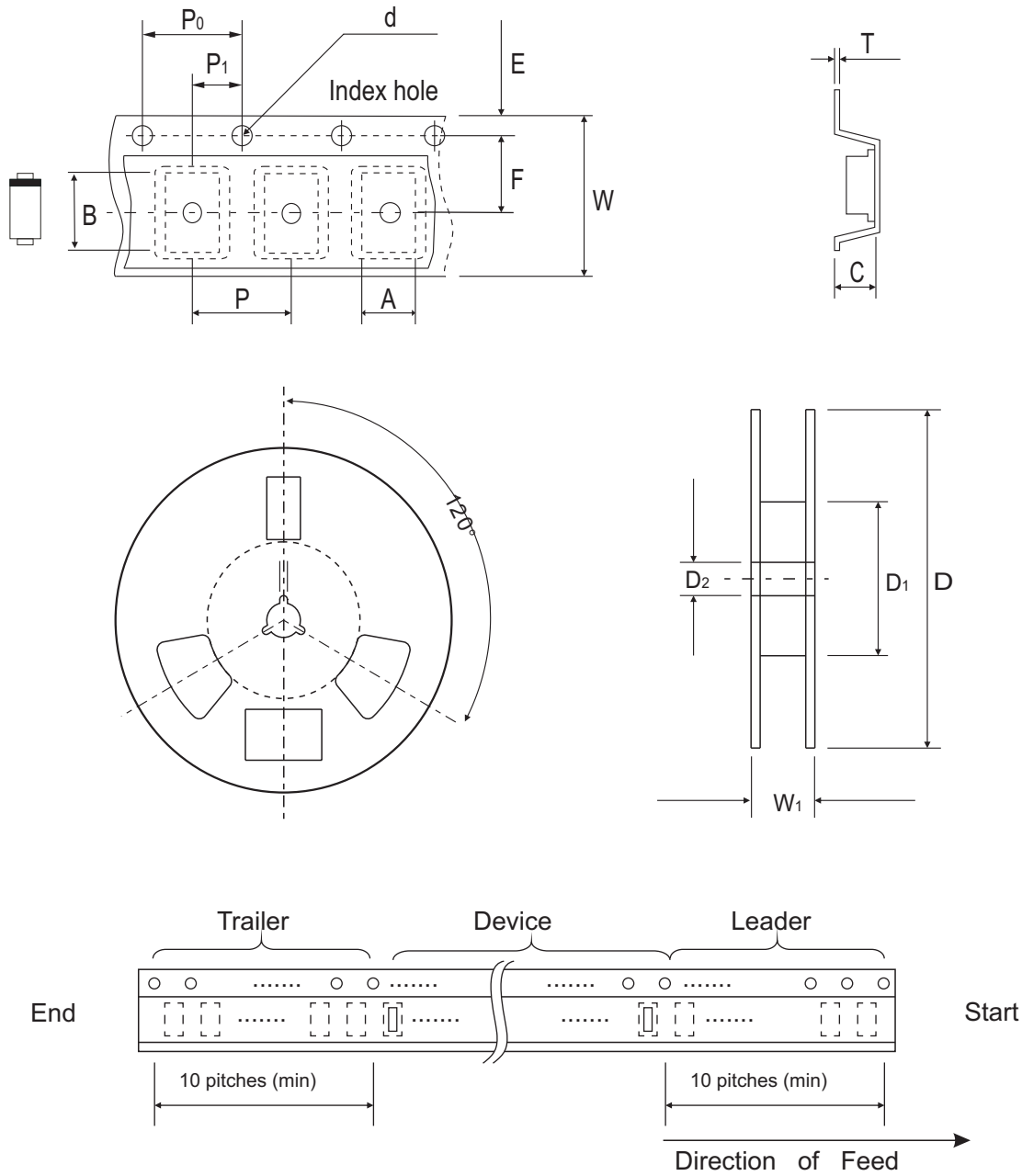


Fig.5 - Typical Junction Capacitance



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	330 ± 2.00	50.0 MIN.	13.50 ± 1.0
	(inch)	0.157 MAX.	0.232 MAX.	0.118 MAX.	0.059 ± 0.004	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

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

REV:C

Marking Code

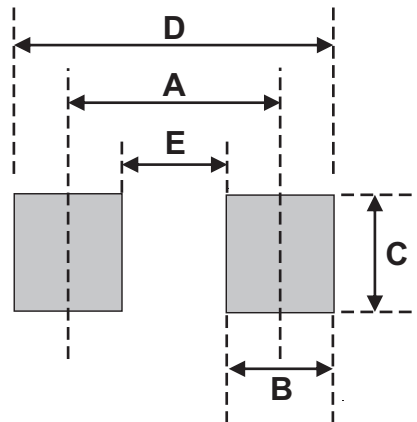
Part Number	Marking Code
CDBB540-HF	SS54
CDBB560-HF	SS56
CDBB5100-HF	SS510



xxxx/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