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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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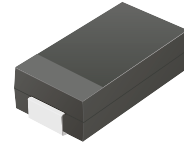
# CDBC220LR-HF Thru. CDBC2200LR-HF

Reverse Voltage: 20 to 200 Volts

Forward Current: 2.0 Amp

RoHS Device

Halogen Free

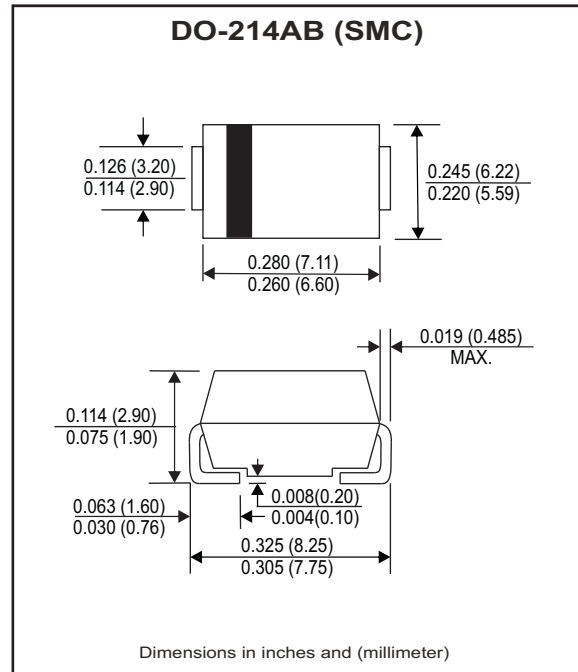


## Features

- Low Profile surface mount applications in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Guard ring for overvoltage protection.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.

## Mechanical data

- Epoxy: UL94-V0 rate flame retardant.
- Case: Molded plastic, DO-214AB / SMC
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Weight: 0.226 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	CDBC 220LR-HF	CDBC 240LR-HF	CDBC 260LR-HF	CDBC 2100LR-HF	CDBC 2150LR-HF	CDBC 2200LR-HF	Unit
Max. Repetitive peak reverse voltage	V <sub>RRM</sub>	20	40	60	100	150	200	V
Max. DC blocking voltage	V <sub>DC</sub>	20	40	60	100	150	200	V
Max. RMS voltage	V <sub>RMS</sub>	14	28	42	70	105	140	V
Max. Instantaneous forward voltage @2.0A, T <sub>A</sub> =25°C	V <sub>F</sub>	0.40	0.45	0.55	0.75	0.82	0.85	V
Operating Temperature	T <sub>J</sub>	-50 to +150				-50 to +175		°C

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	Unit
Forward rectified current	see Fig.1	I <sub>o</sub>			2.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I <sub>FSM</sub>			70	A
Reverse Current	V <sub>R</sub> =V <sub>RRM</sub> T <sub>A</sub> =25°C	I <sub>R</sub>			0.5	mA
	V <sub>R</sub> =V <sub>RRM</sub> T <sub>A</sub> =100°C	I <sub>R</sub>			20	mA
Thermal Resistance	Junction to ambient	R <sub>θJA</sub>		50		°C/W
Diode Junction capacitance	f=1MHz and applied 4V DC reverse Voltage	C <sub>J</sub>		30		pF
Storage temperature		T <sub>STG</sub>	-50		+175	°C

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

REV:A

## RATING AND CHARACTERISTIC CURVES (CDBC220LR-HF Thru. CDBC2200LR-HF)

Fig.1 - Typical Forward Current Derating Curve

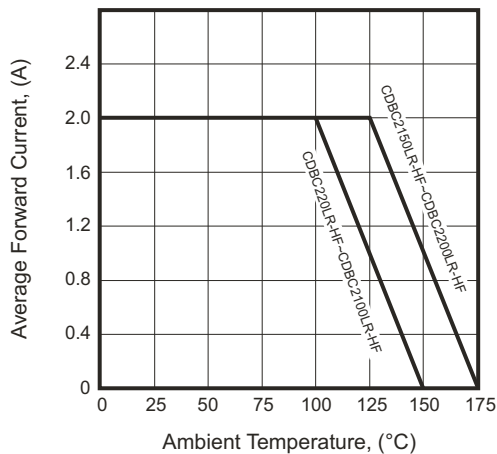


Fig.2 - Typical Forward Characteristics

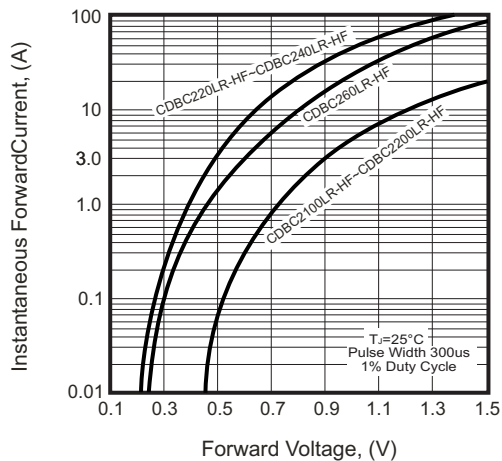


Fig.3 - Maximum Non-repetitive Forward Surge Current

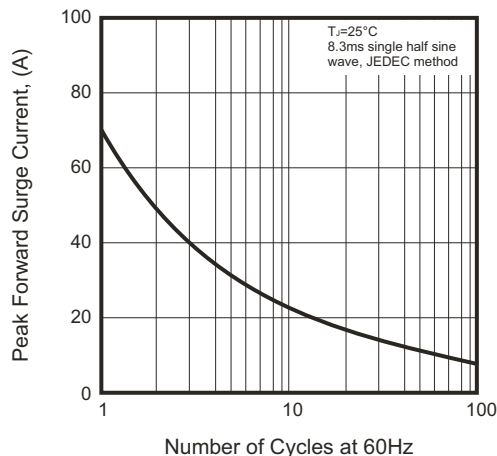


Fig.4 - Typical Junction Capacitance

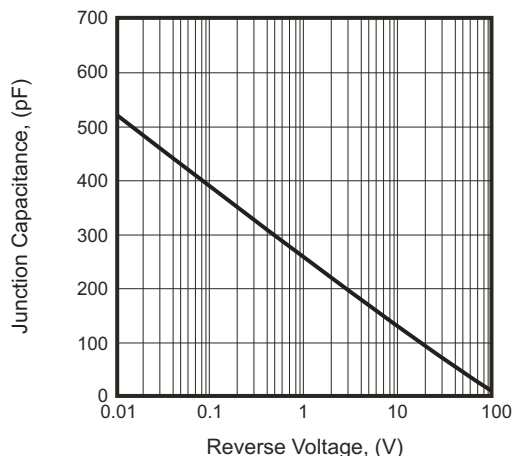
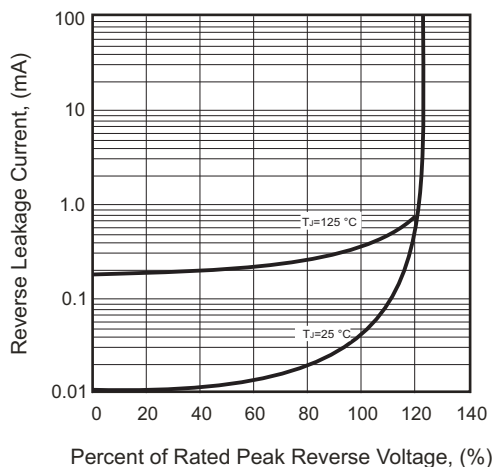
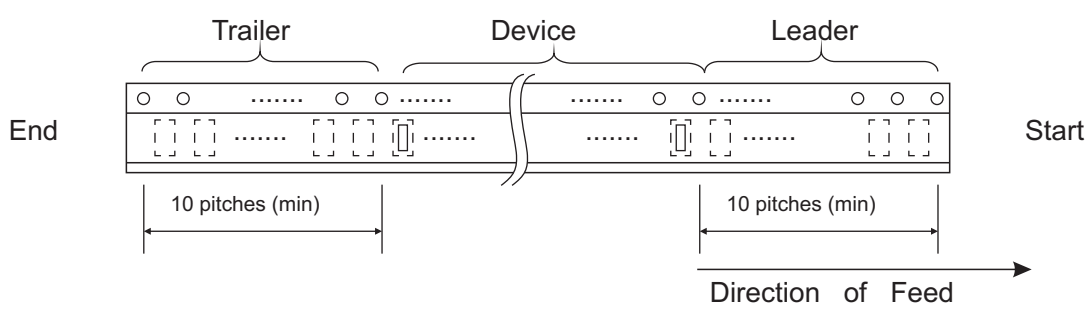
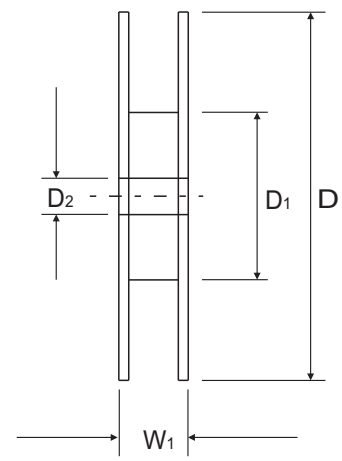
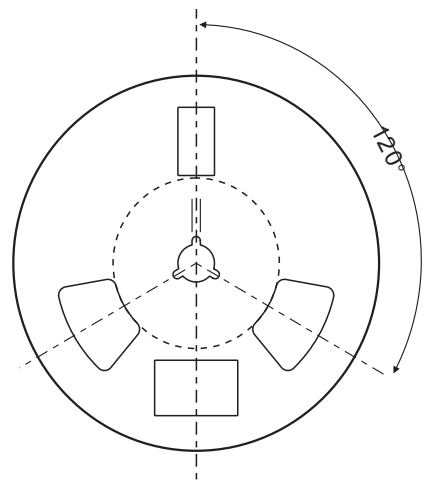
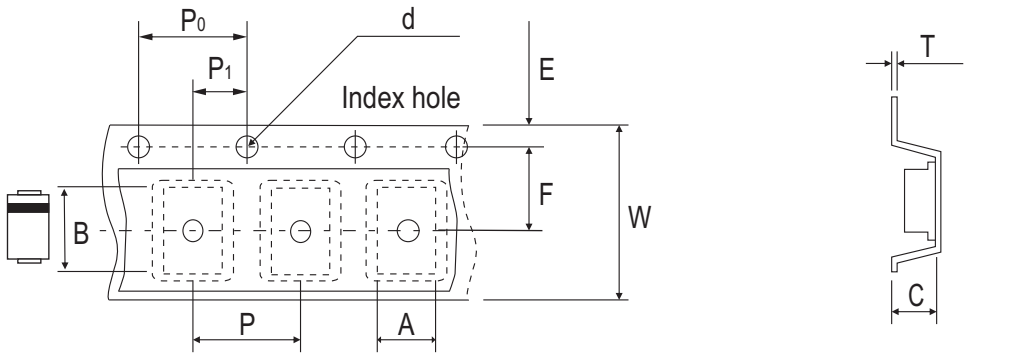


Fig.5 - Typical Reverse Characteristics



## Reel Taping Specification



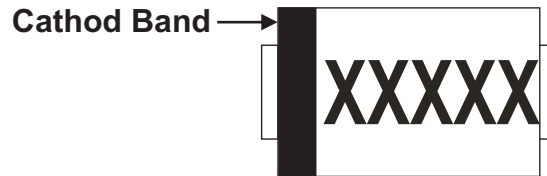
DO-214AB (SMC)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	6.30 ± 0.10	8.60 ± 0.10	2.90 ± 0.10	1.50 ± 0.10	330 ± 2.00	50.0 MIN.	13.50 ± 0.50
	(inch)	0.248 ± 0.004	0.339 ± 0.004	0.114 ± 0.004	0.059 ± 0.004	12.99 ± 0.079	1.969 MIN.	0.531 ± 0.020

DO-214AB (SMC)	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	7.50 ± 0.10	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.60 ± 0.10	16.00 ± 0.30	22.40 ± 1.00
	(inch)	0.069 ± 0.004	0.295 ± 0.004	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.236 ± 0.004	0.630 ± 0.012	0.882 ± 0.039

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## Marking Code

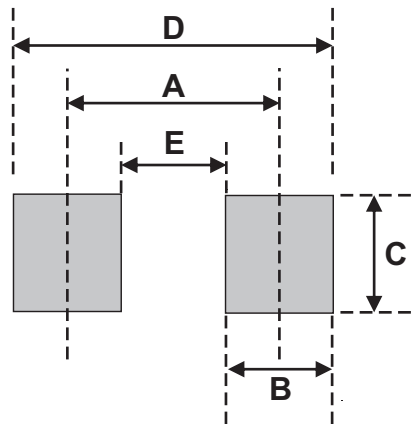
Part Number	Marking Code
CDBC220LR-HF	KL22
CDBC240LRHF	KL24
CDBC260LRHF	KL26
CDBC2100LRHF	KL210
CDBC2150LRHF	KL215
CDBC2200LRHF	KL220



XXXXXX = Product type marking code

## Suggested PAD Layout

SIZE	DO-214AB (SMC)	
	(mm)	(inch)
A	6.90	0.272
B	2.50	0.098
C	3.30	0.130
D	9.40	0.370
E	4.40	0.173



## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
DO-214AB (SMC)	3,000	13