

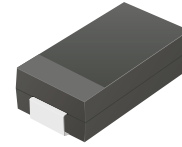


**THE DATASHEET OF  
CDBA140SL-HF**



# CDBA140SL-HF

**Reverse Voltage: 40 Volts**  
**Forward Current: 1.0 Amp**  
**RoHS Device**  
**Halogen free**

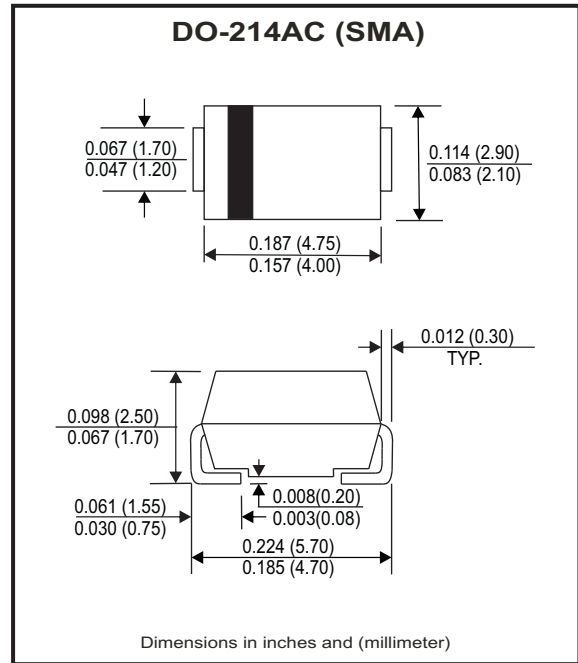


## Features

- Low Profile surface mounted application in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.

## Mechanical data

- Epoxy: UL94-V0 rate flame retardant.
- Case: Molded plastic, DO-214AC / SMA
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Weight: 0.08 grams(Approx.)



## Circuit diagram



## Maximum Ratings (at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	Unit
Peak repetitive reverse voltage	I <sub>r</sub> = 1mA, T <sub>J</sub> = 25°C	V <sub>RRM</sub>			40	V
Working peak reverse voltage		V <sub>RWM</sub>			40	V
DC blocking voltage		V <sub>DC</sub>			40	V
Forward rectified current		I <sub>o</sub>			1	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I <sub>FSM</sub>			30	A
Peak repetitive reverse surge current	2us - 1KHz	I <sub>RRM</sub>			2	A
Thermal resistance	Junction to case	R <sub>θJC</sub>			40	°C/W
	Junction to ambient	R <sub>θJA</sub>			70	
Operating Temperature range		T <sub>J</sub>	-55		+100	°C
Storage temperature range		T <sub>STG</sub>	-55		+150	

## Electrical Characteristics (at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	Unit
Forward voltage drop	I <sub>F</sub> = 1A, T <sub>J</sub> = 25°C	V <sub>F</sub>		275	330	mV
Reverse current	V <sub>R</sub> = V <sub>RRM</sub> , T <sub>J</sub> = 25°C	I <sub>R</sub>		0.2	1	mA
	V <sub>R</sub> = V <sub>RRM</sub> , T <sub>J</sub> = 100°C				80	

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

REV: D

## RATING AND CHARACTERISTIC CURVES (CDBA140SL-HF)

Fig.1 - Typical Forward Characteristics

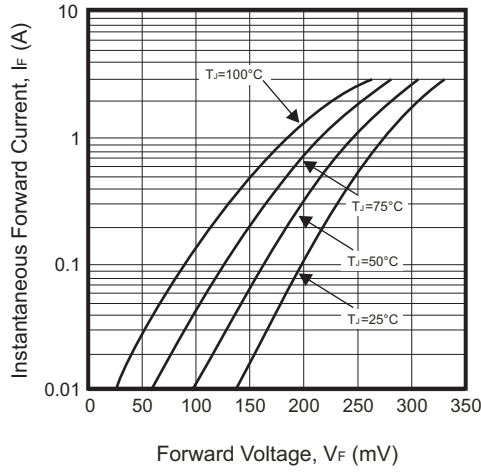


Fig.2 - Reverse Characteristics

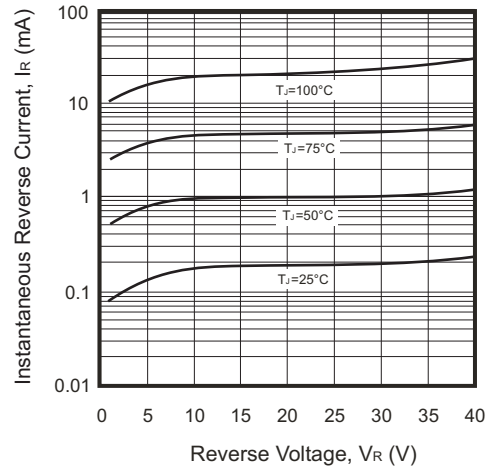


Fig.3 - Forward Power Dissipation

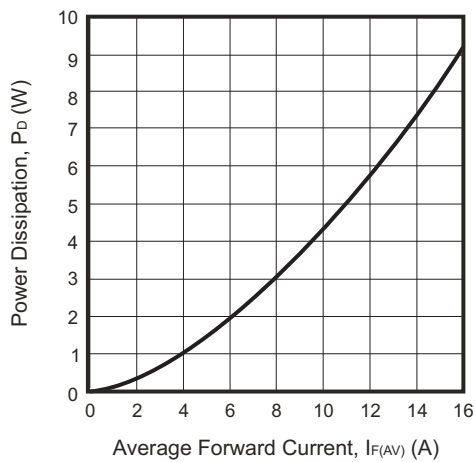


Fig.4 - Typical Forward Current Derating Curve

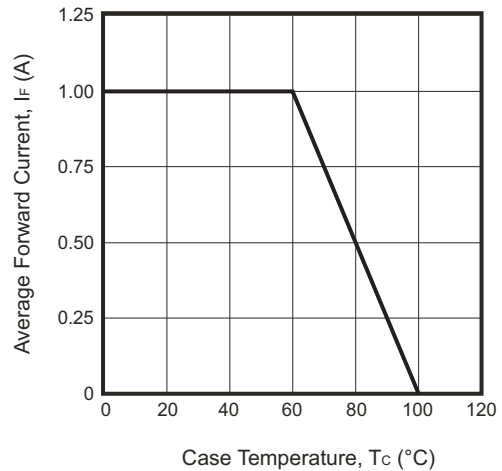
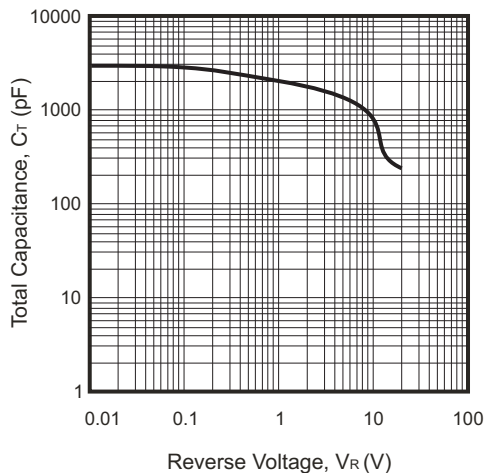
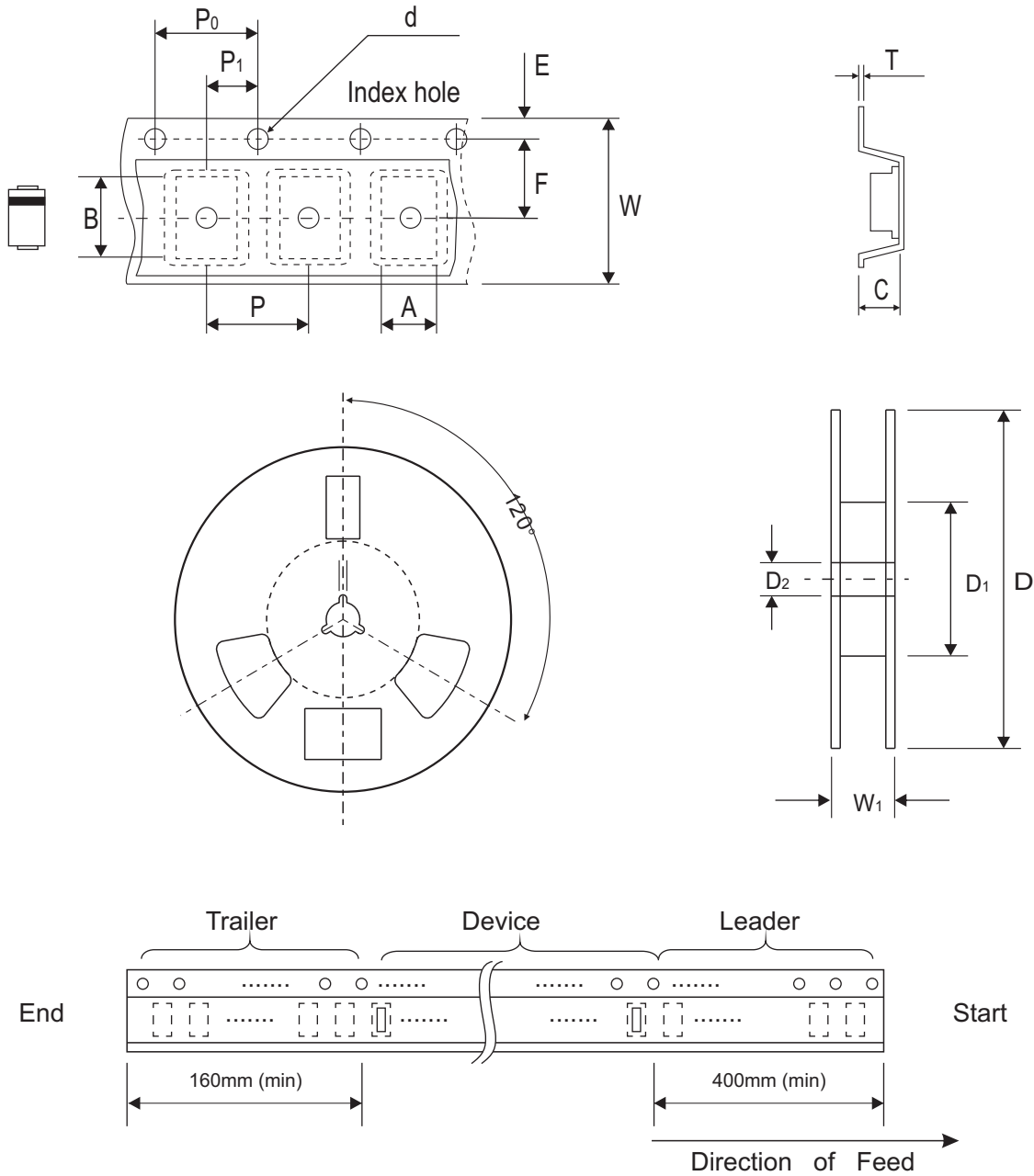


Fig.5 - Total Capacitance VS. Reverse Voltage



## Reel Taping Specification



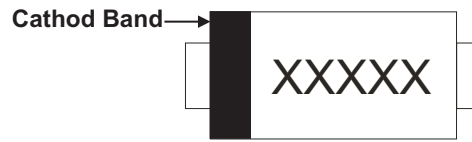
DO-214AC (SMA)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.70 ± 0.10	5.30 ± 0.10	2.66 ± 0.10	1.50 ± 0.10	330 ± 2.00	62.0 MIN.	13.50 ± 0.50
	(inch)	0.106 ± 0.004	0.209 ± 0.004	0.105 ± 0.004	0.059 ± 0.004	12.99 ± 0.079	2.441 MIN.	0.531 ± 0.020

DO-214AC (SMA)	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	5.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.60 ± 0.10	12.0 ± 0.30	18.40 ± 1.00
	(inch)	0.069 ± 0.004	0.217 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.236 ± 0.004	0.472 ± 0.012	0.724 ± 0.039

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

## Marking Code

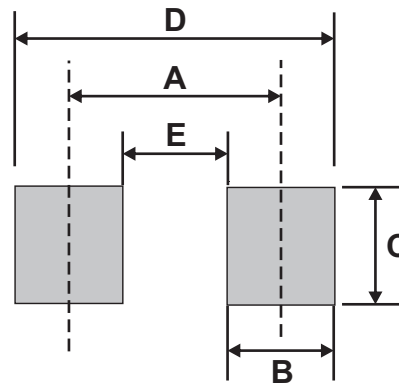
Part Number	Marking Code
CDBA140SL-HF	SLS14



xxxxxx = Product type marking code

## Suggested PAD Layout

SIZE	DO-214AC(SMA)	
	(mm)	(inch)
A	4.10	0.161
B	2.60	0.102
C	1.70	0.067
D	6.70	0.264
E	1.50	0.059





## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
DO-214AC (SMA)	5,000	13

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View CDBA140SL-HF on WIN SOURCE](#)
-  [Comchip Technology Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management