

# CDBA140SL-HF

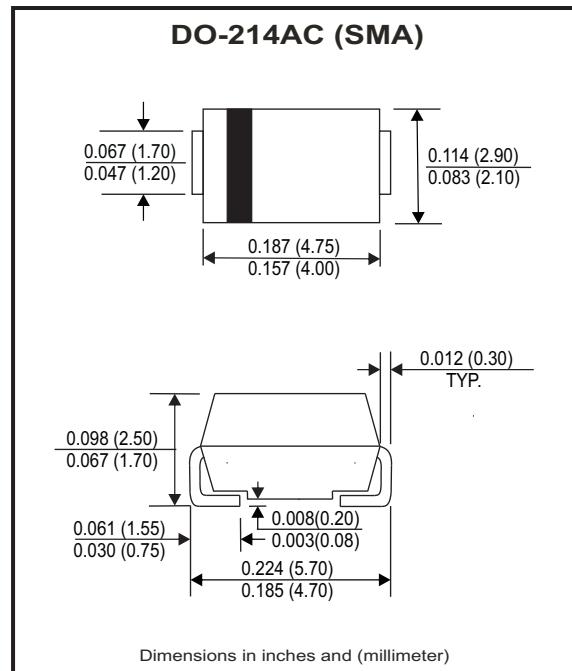
**Reverse Voltage: 40 Volts****Forward Current: 1.0 Amp****RoHS Device****Halogen free**

## 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: 0.055 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%.

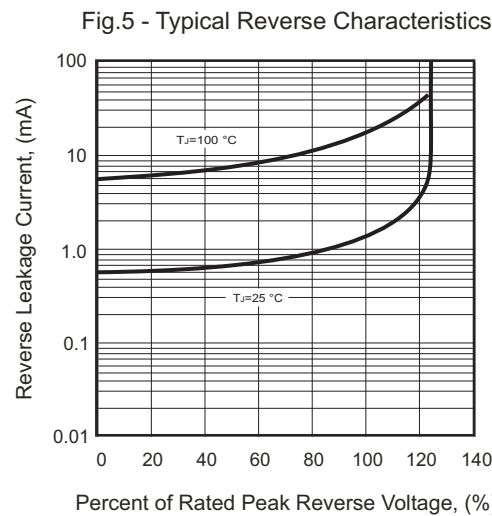
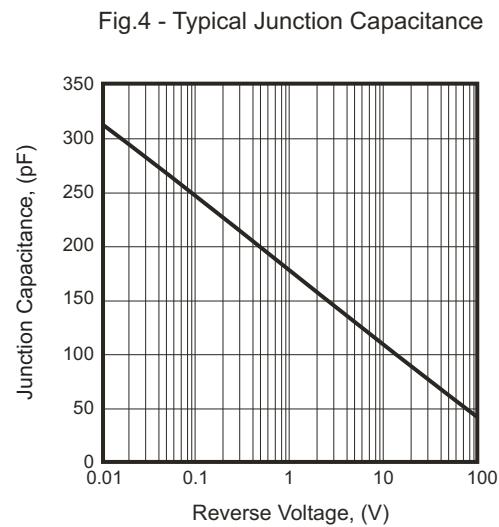
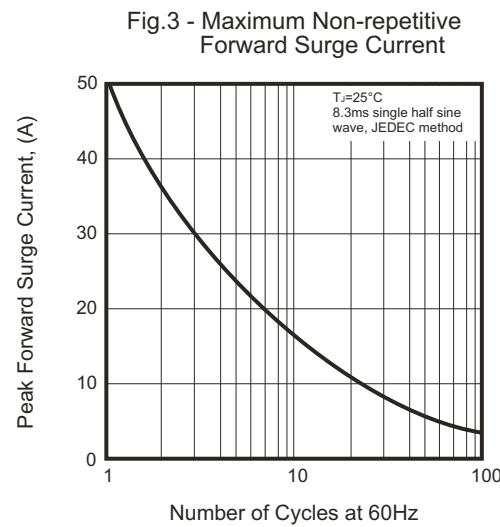
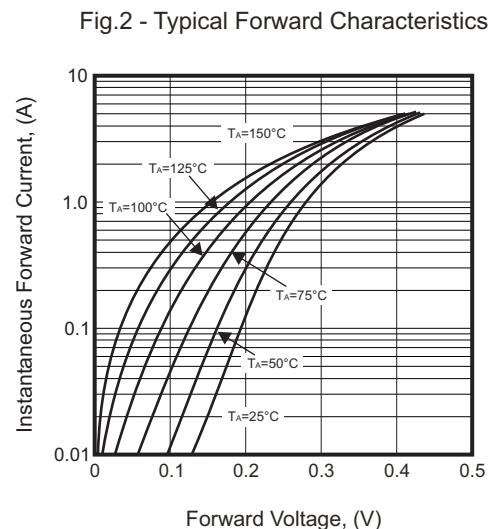
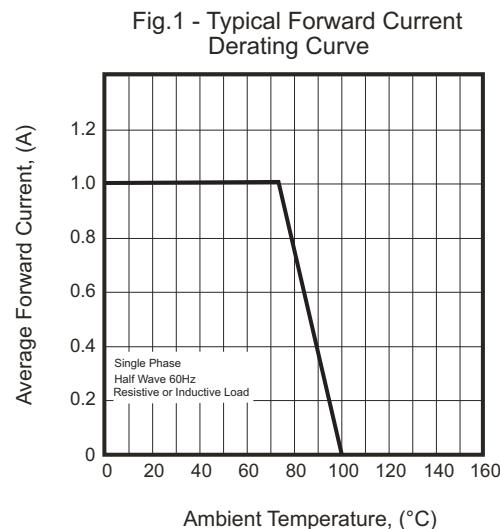
Parameter	Symbol	CDBA140SL-HF			Units
Max. Repetitive peak reverse voltage	$V_{RRM}$	40			V
Max. DC blocking voltage	$V_R$	40			V
Max. RMS voltage	$V_{RMS}$	28			V
Max. forward voltage @1.0A, $T_a=25^\circ\text{C}$	$V_F$	0.33			V
Operating Temperature	$T_J$	-55 to +100			°C

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	Units
Forward rectified current	see Fig.1	$I_o$			1.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$			30	A
Reverse current	$V_R = V_{RRM}$ $T_a=25^\circ\text{C}$	$I_R$			2	mA
	$V_R = V_{RRM}$ $T_a=100^\circ\text{C}$	$I_R$			20	mA
Thermal resistance	Junction to ambient	$R_{\theta JA}$		70		°C/W
Diode junction capacitance	f=1MHz and applied 4V DC reverse Voltage	$C_J$		160		pF
Storage temperature		$T_{STG}$	-55		+150	°C

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

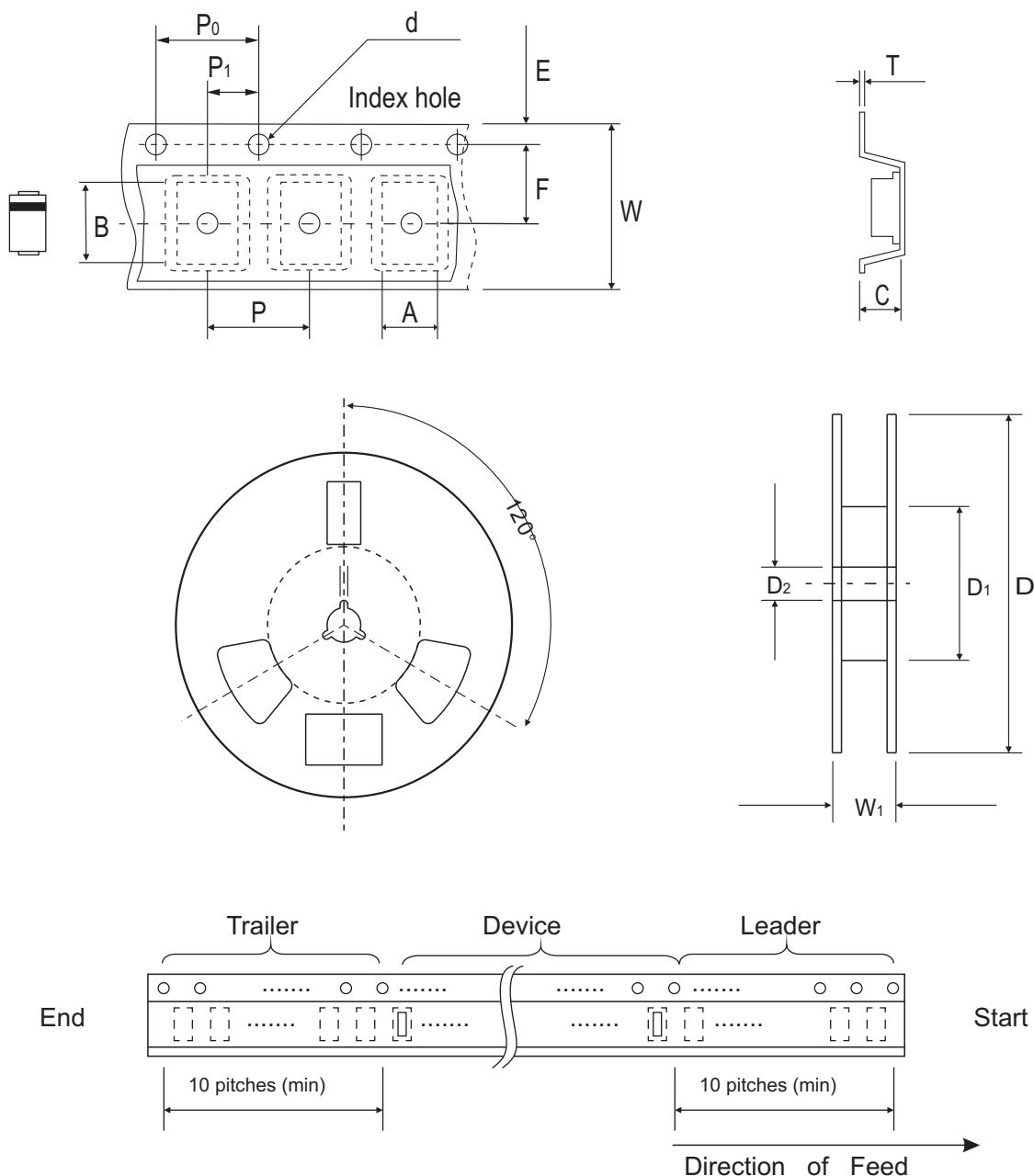
REV: C

## RATING AND CHARACTERISTIC CURVES (CDBA140SL-HF)



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## Reel Taping Specification

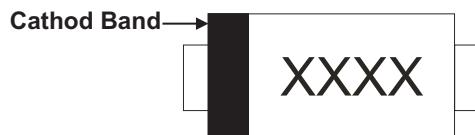


DO-214AC (SMA)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	$2.70 \pm 0.10$	$5.30 \pm 0.10$	$2.66 \pm 0.10$	$1.50 \pm 0.10$	$330 \pm 2.00$	62.0 MIN.	$13.50 \pm 0.50$
	(inch)	$0.106 \pm 0.004$	$0.209 \pm 0.004$	$0.105 \pm 0.004$	$0.059 \pm 0.004$	$12.99 \pm 0.079$	2.441 MIN.	$0.531 \pm 0.020$

DO-214AC (SMA)	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	T	W	W <sub>1</sub>
	(mm)	$1.75 \pm 0.10$	$5.50 \pm 0.10$	$4.00 \pm 0.10$	$4.00 \pm 0.10$	$2.00 \pm 0.10$	$0.60 \pm 0.10$	$12.0 \pm 0.30$	$18.40 \pm 1.00$
	(inch)	$0.069 \pm 0.004$	$0.217 \pm 0.004$	$0.157 \pm 0.004$	$0.157 \pm 0.004$	$0.079 \pm 0.004$	$0.236 \pm 0.004$	$0.472 \pm 0.012$	$0.724 \pm 0.039$

## Marking Code

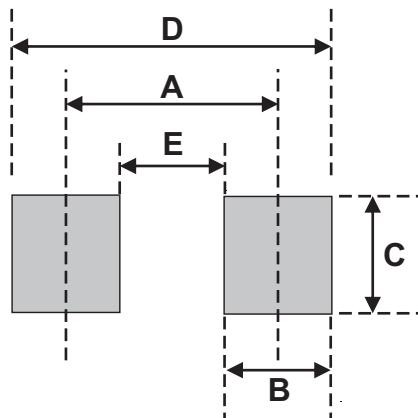
Part Number	Marking Code
CDBA140SL-HF	SLS14



xxxx = 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