

# High Temperature Coupled Inductor CDEP1010B



Provisional

## Description

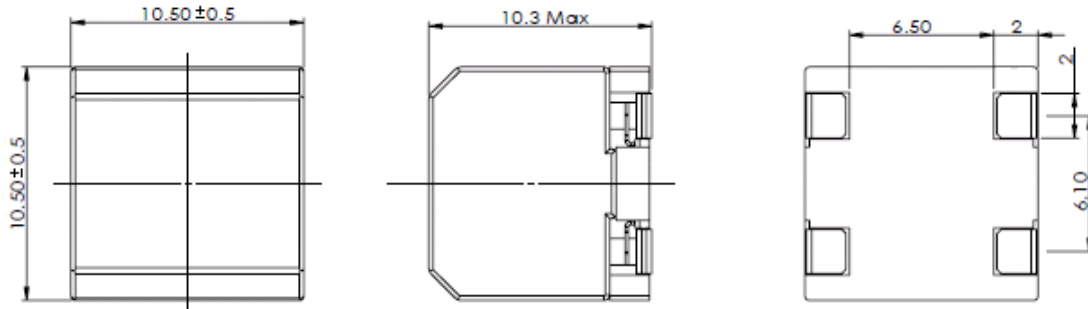
- Magnetically shielded
- 2-in-1 package coil for Buck-Boost converter (SEPIC and ZETA)
- Low DCR by using flat wire
- L x W x H: 11.0 x 11.0 x 10.3 mm Max.
- Qualified AEC-Q200
- Operating temperature range: -40°C~ +125°C (including self-heating)



## Applications

- Power supply for LED, etc.
- Automotive and other high temperature, high reliability applications

## Dimension - [mm]

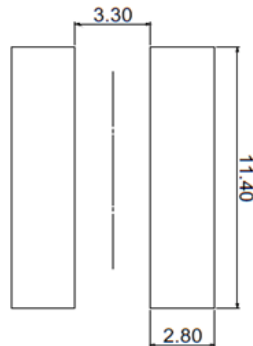


## Reference Land pattern – [mm]

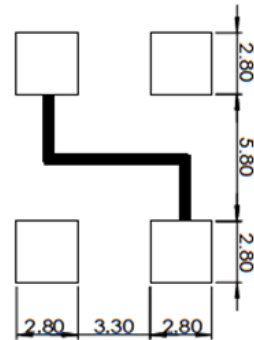
(1) Single winding



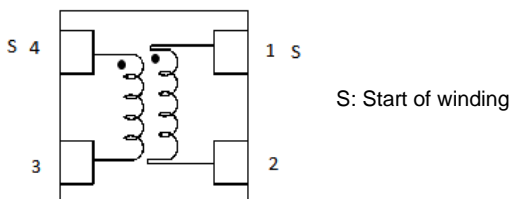
(2) Leads connected in parallel



(3) Leads connected in series



## Connection



Note: This specification is subject to change without notice. Please contact your nearest sales office for updated information when placing an order.

# High Temperature Coupled Inductor CDEP1010B



Provisional

## Electrical Characteristics

### 2-2-1. Single Winding (Pin1 to Pin2 or Pin4 to Pin3)

Part No.	Stamp	Inductance [within] ( $\mu$ H) ※1	D.C.R (m $\Omega$ ) at 25°C Max. (Typ.)	Saturation Current (A) Max. (Typ.) ※2		Temperature Rise Current (A) Max. (Typ.) ※3
				(at 25°C)	(at 125°C) Ref.	
CDEP1010BNP-3R9MC	3R9	3.9 $\pm$ 20%	8.2 (6.6)	9.6 (12.0)	(9.0)	(9.2)

### 2-2-2. Leads connected in series (Pin1 to Pin3, Pin2 and Pin4 short)

Part No.	Stamp	Inductance [within] ( $\mu$ H) ※1	D.C.R (m $\Omega$ ) at 25°C Max. (Typ.)	Saturation Current (A) Max. (Typ.) ※2		Temperature Rise Current (A) Max. (Typ.) ※3
				(at 25°C)	(at 125°C) Ref.	
CDEP1010BNP-3R9MC	3R9	15.6 $\pm$ 20%	16.4(13.2)	4.8(6.0)	(4.5)	(7.0)

### 2-2-3. Leads connected in parallel (Pin1,4 to Pin2,3, Pin1 and Pin4 short, Pin2 and Pin3 short)

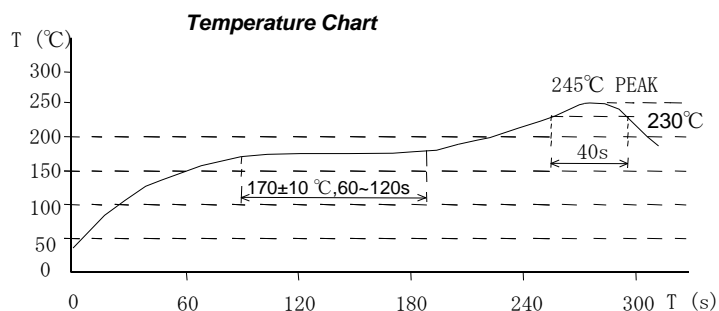
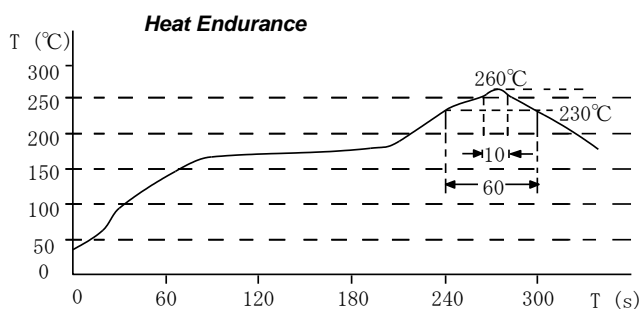
Part No.	Stamp	Inductance [within] ( $\mu$ H) ※1	D.C.R (m $\Omega$ ) at 25°C Max. (Typ.)	Saturation Current (A) Max. (Typ.) ※2		Temperature Rise Current (A) Max. (Typ.) ※3
				(at 25°C)	(at 125°C) Ref.	
CDEP1010BNP-3R9MC	3R9	3.9 $\pm$ 20%	4.1(3.3)	9.6(12.0)	(9.0)	(12.8)

※1 Measuring frequency inductance at 100kHz.

※2 Saturation current: This indicates the value of DC current when the inductance decreases to 75% of its initial value.

※3 The temperature rise: the actual value of DC current when the temperature rise is  $\Delta T=40^{\circ}\text{C}$  ( $T_a=20^{\circ}\text{C}$ ). (The part is mounted on PCB to test.)

## Solder Reflow Condition



Note: This specification is subject to change without notice. Please contact your nearest sales office for updated information when placing an order.

# High Temperature Coupled Inductor CDEP1010B

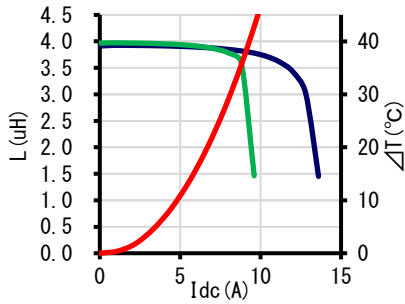


Provisional

Saturation Current & Temperature Rise Graph    — L (25°C)    — L (125°C)    —  $\Delta T$

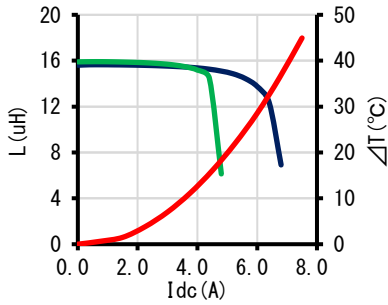
## Single Winding (Pin1 to Pin2 or Pin4 to Pin3)

CDEP1010BNP-3R9MC



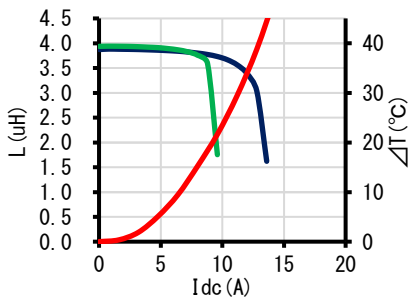
## Leads connected in series (Pin1 to Pin3, Pin2 and Pin4 short)

CDEP1010BNP-3R9MC



## Leads connected in parallel (Pin1,4 to Pin2,3, Pin1 and Pin4 short, Pin2 and Pin3 short)

CDEP1010BNP-3R9MC



For sales office information, please [click here](#) to visit our website.

Note: This specification is subject to change without notice. Please contact your nearest sales office for updated information when placing an order.