

# SMD Power Inductor

## CDRH50D28B/T150



Recommended Type

### Description

- Ferrite drum core construction
- Magnetically shielded
- LxWxH: 5.6 x 5.3 x 3.0 mm Max.
- Product weight: 0.24g (Ref.)
- Qualified AEC-Q200
- RoHS compliance
- Absolute Maximum Voltage (across inductor): 250V
- Vibration resistance: 10Hz~2kHz/30G (MIL standard)



### Environmental Data

- Operating Temperature: -55°C to +150°C (including self-heating)

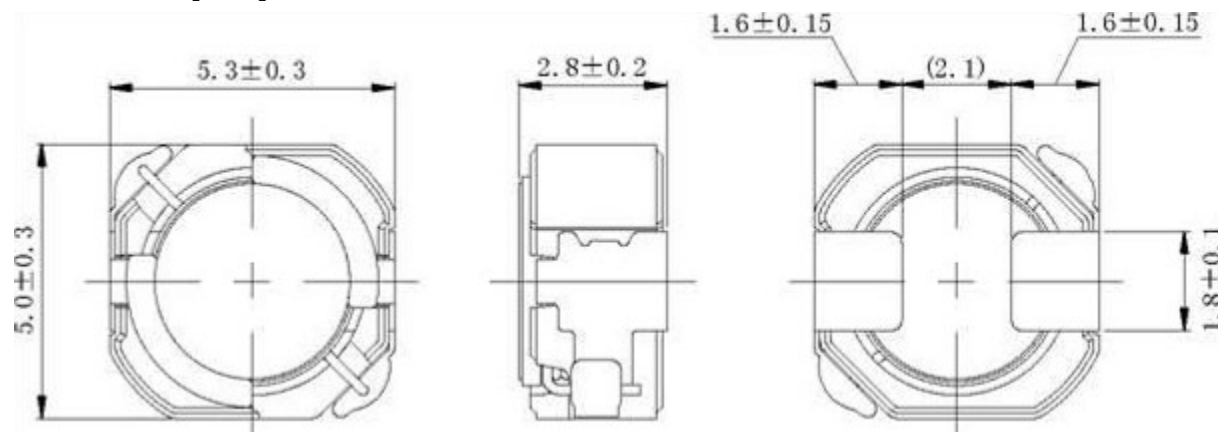
### Packaging

- Carrier tape and reel packaging

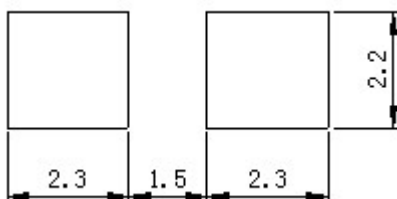
### Applications

- ADAS DC/DC converter
- Other high temperature / high reliability applications for automotive

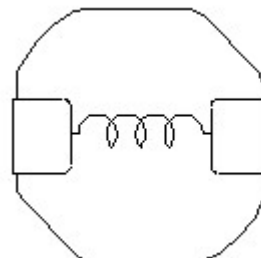
### Dimension - [mm]



### Recommended Land pattern - [mm]



### Wire Connection



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

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### Electrical Characteristics

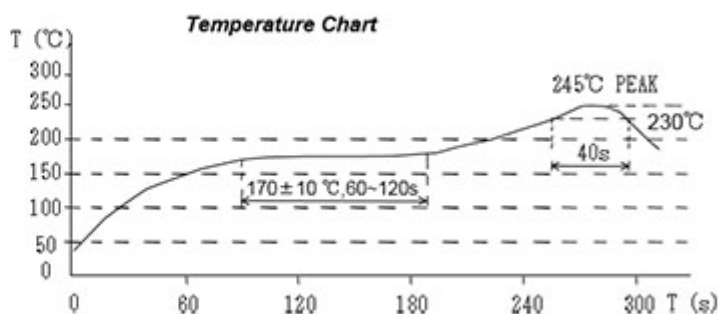
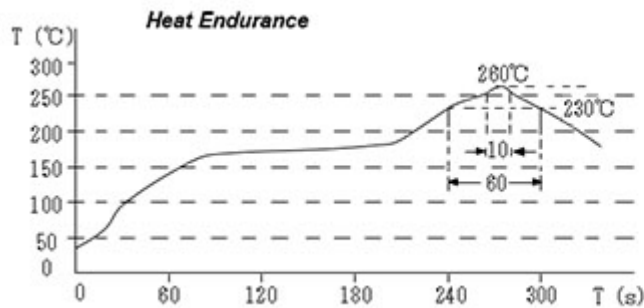
Part Number	Inductance [Within] ( $\mu$ H) ※1	D.C.R. at 20°C [Within] (m $\Omega$ )	Saturation Current (A) Max.(Typ.) ※2	Temperature Rise Current (A) Max.(Typ.) ※3
CDRH50D28BT150NP-1R0NC	1.00 $\pm$ 30%	18.00 $\pm$ 30%	5.50 (6.50)	3.20 (3.60)
CDRH50D28BT150NP-1R5NC	1.50 $\pm$ 30%	20.00 $\pm$ 30%	5.50 (5.20)	3.00 (3.40)
CDRH50D28BT150NP-2R2NC	2.20 $\pm$ 30%	26.00 $\pm$ 30%	3.50 (4.20)	2.80 (3.20)
CDRH50D28BT150NP-3R3NC	3.30 $\pm$ 30%	32.00 $\pm$ 30%	2.90 (3.40)	2.40 (2.70)
CDRH50D28BT150NP-4R7NC	4.70 $\pm$ 30%	52.00 $\pm$ 30%	2.40 (2.90)	2.20 (2.50)
CDRH50D28BT150NP-6R8NC	6.80 $\pm$ 30%	75.00 $\pm$ 30%	2.00 (2.40)	1.70 (1.92)
CDRH50D28BT150NP-100MC	10.00 $\pm$ 20%	95.00 $\pm$ 20%	1.70 (2.00)	1.55 (1.75)
CDRH50D28BT150NP-150MC	15.00 $\pm$ 20%	130 $\pm$ 20%	1.40 (1.70)	1.22 (1.38)
CDRH50D28BT150NP-220MC	22.00 $\pm$ 20%	150 $\pm$ 20%	1.20 (1.40)	1.00 (1.14)
CDRH50D28BT150NP-330MC	33.00 $\pm$ 20%	280 $\pm$ 20%	0.93 (1.10)	0.88 (0.90)
CDRH50D28BT150NP-470MC	47.00 $\pm$ 20%	430 $\pm$ 20%	0.78 (0.92)	0.68 (0.76)
CDRH50D28BT150NP-680MC	68.00 $\pm$ 20%	630 $\pm$ 20%	0.67 (0.79)	0.56 (0.65)
CDRH50D28BT150NP-101MC	100 $\pm$ 20%	780 $\pm$ 20%	0.55 (0.65)	0.40 (0.46)

※1 Measuring frequency : Inductance at 100kHz

※2 Saturation current: This indicates the value of D.C. current when the inductance becomes 30% lower than its nominal value.

※3 Temperature rise current: The actual current when temperature of coil becomes  $\Delta T=40^\circ\text{C}$  ( $T_a=20^\circ\text{C}$ ).

### Solder Reflow Condition



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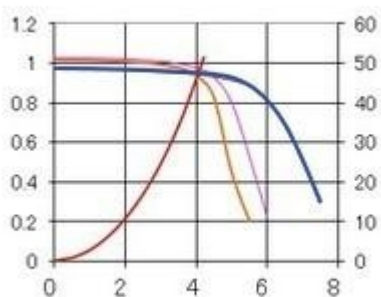
Recommended Type

### Saturation Current & Temperature Rise Graph

— L (20°C) — L (125°C) — L (150°C) —  $\Delta T$

1. CDRH50D28BT150NP-1R0NC

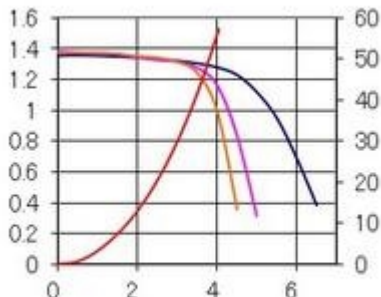
L ( $\mu\text{H}$ )  $\Delta T(^{\circ}\text{C})$



DC(A)

2. CDRH50D28BT150NP-1R5NC

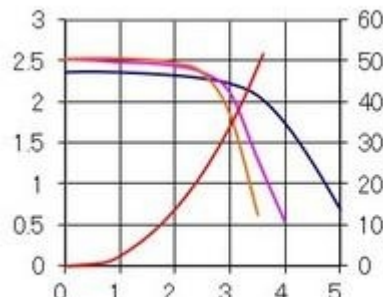
L ( $\mu\text{H}$ )  $\Delta T(^{\circ}\text{C})$



DC(A)

3. CDRH50D28BT150NP-2R2NC

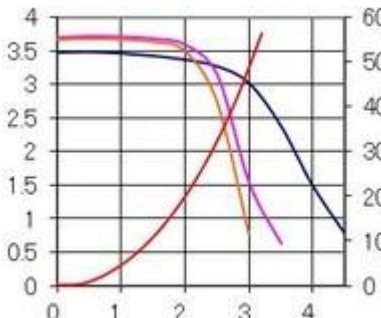
L ( $\mu\text{H}$ )  $\Delta T(^{\circ}\text{C})$



DC(A)

4. CDRH50D28BT150NP-3R3NC

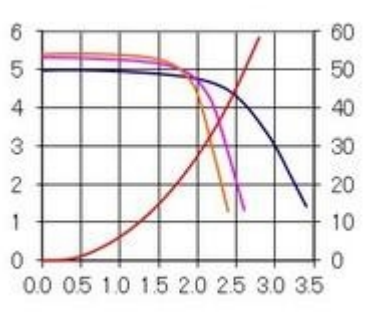
L ( $\mu\text{H}$ )  $\Delta T(^{\circ}\text{C})$



DC(A)

5. CDRH50D28BT150NP-4R7NC

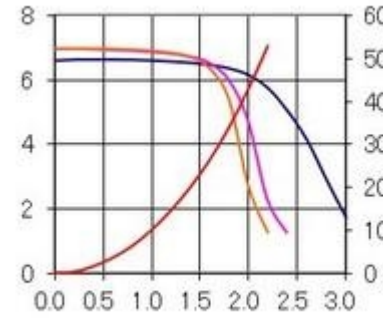
L ( $\mu\text{H}$ )  $\Delta T(^{\circ}\text{C})$



DC(A)

6. CDRH50D28BT150NP-6R8NC

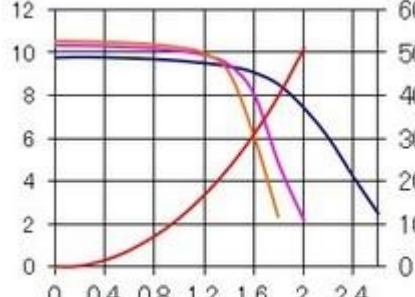
L ( $\mu\text{H}$ )  $\Delta T(^{\circ}\text{C})$



DC(A)

7. CDRH50D28BT150NP-100MC

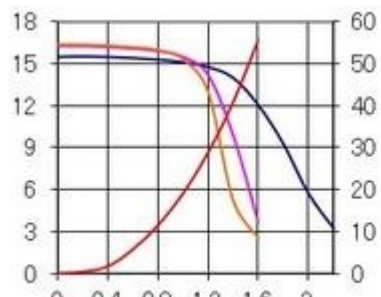
L ( $\mu\text{H}$ )  $\Delta T(^{\circ}\text{C})$



DC(A)

8. CDRH50D28BT150NP-150MC

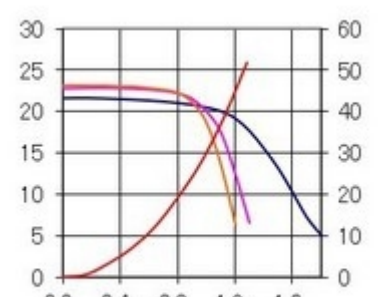
L ( $\mu\text{H}$ )  $\Delta T(^{\circ}\text{C})$



DC(A)

9. CDRH50D28BT150NP-220MC

L ( $\mu\text{H}$ )  $\Delta T(^{\circ}\text{C})$



DC(A)

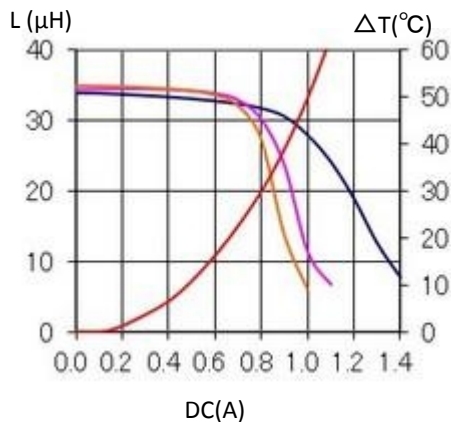
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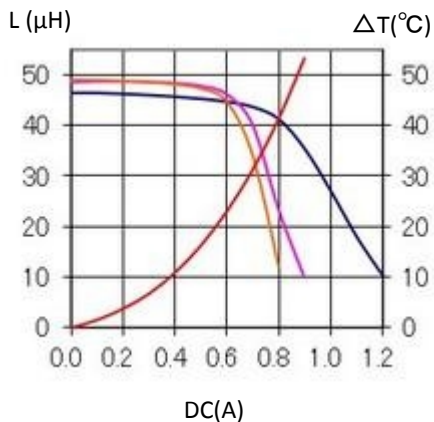
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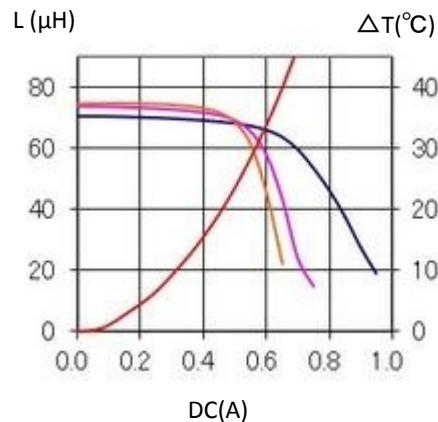
10. CDRH50D28BT150NP-330MC



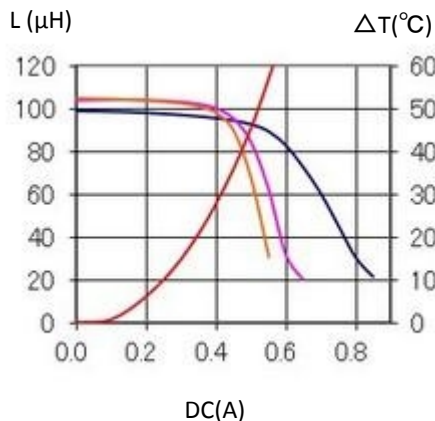
11. CDRH50D28BT150NP-470MC



12. CDRH50D28BT150NP-680MC



13. CDRH50D28BT150NP-101MC



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