

# SMD Power Inductor

## CDRH12D77B/T150



 Recommended Type

### Description

- Magnetically shielded
- LxWxH: 12.8x13.1xH8.0 mm Max.
- Product weight: 3.8g (Ref.)
- Qualified AEC-Q200



### Environmental Data

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

### Packaging

- Carrier tape and reel packaging

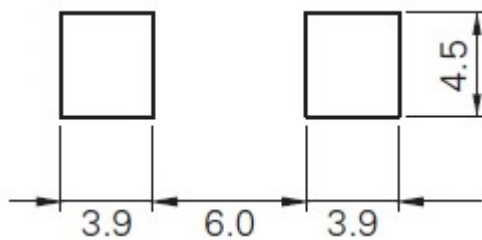
### Applications

- High temp and high reliability automotive applications

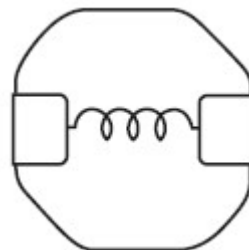
### Dimension - [mm]



### Recommended Land pattern - [mm]



### Wire Connection



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### Electrical Characteristics

Part Number	Inductance [Within] ( $\mu$ H) ※1	D.C.R. at 20°C Max.(Typ.) (m $\Omega$ )	Saturation Current (A) Max.(Typ.) ※2	Temperature Rise Current (A) Max.(Typ.) ※3
CDRH12D77BT150NP-1R0NC	1.00 $\pm$ 30%	5.85 (4.50)	24.80 (31.00)	11.70 (14.00)
CDRH12D77BT150NP-1R5NC	1.50 $\pm$ 30%	7.02 (5.40)	20.00 (25.00)	11.20 (12.70)
CDRH12D77BT150NP-2R2NC	2.20 $\pm$ 30%	8.19 (6.30)	16.50 (20.60)	10.50 (11.70)
CDRH12D77BT150NP-3R3NC	3.30 $\pm$ 30%	9.62 (7.40)	13.30 (16.70)	9.90 (11.20)
CDRH12D77BT150NP-4R2NC	4.20 $\pm$ 30%	10.92 (8.40)	11.70 (14.70)	9.50 (10.50)
CDRH12D77BT150NP-6R8NC	6.80 $\pm$ 30%	16.90 (13.00)	9.30 (11.70)	7.10 (8.10)
CDRH12D77BT150NP-100MC	10.00 $\pm$ 20%	18.96 (15.80)	7.70 (9.70)	6.70 (7.50)
CDRH12D77BT150NP-150MC	15.00 $\pm$ 20%	27.60 (23.00)	6.20 (7.80)	5.60 (6.40)
CDRH12D77BT150NP-220MC	22.00 $\pm$ 20%	40.80 (34.00)	5.10 (6.40)	4.40 (5.10)
CDRH12D77BT150NP-330MC	33.00 $\pm$ 20%	57.60 (48.00)	4.10 (5.20)	3.70 (4.30)
CDRH12D77BT150NP-470MC	47.00 $\pm$ 20%	72.00 (60.00)	3.50 (4.40)	3.50 (4.00)
CDRH12D77BT150NP-680MC	68.00 $\pm$ 20%	92.40 (77.00)	2.90 (3.70)	3.20 (3.60)
CDRH12D77BT150NP-101MC	100 $\pm$ 20%	138 (115)	2.40 (3.05)	2.50 (2.80)
CDRH12D77BT150NP-151MC	150 $\pm$ 20%	198 (165)	2.00 (2.55)	2.15 (2.45)
CDRH12D77BT150NP-221MC	220 $\pm$ 20%	318 (265)	1.65 (2.05)	1.60 (1.80)
CDRH12D77BT150NP-331MC	330 $\pm$ 20%	444 (370)	1.35 (1.70)	1.30 (1.50)
CDRH12D77BT150NP-471MC	470 $\pm$ 20%	612 (510)	1.40 (1.40)	1.32 (1.32)

※ Measuring frequency inductance at 100kHz,1V.

※ Saturation current: DC current which becomes inductance value drop by 30% from the nominal value.

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

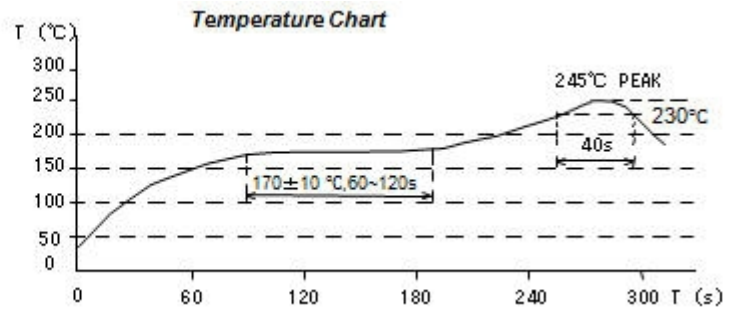
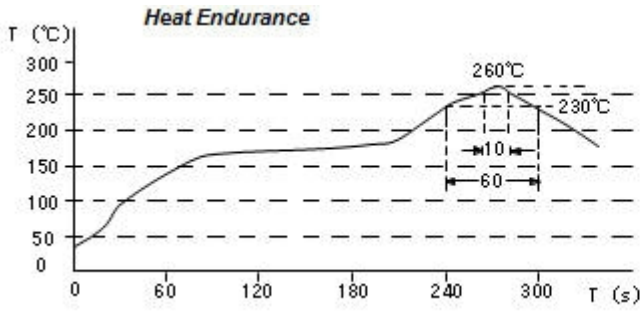
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### Solder Reflow Condition



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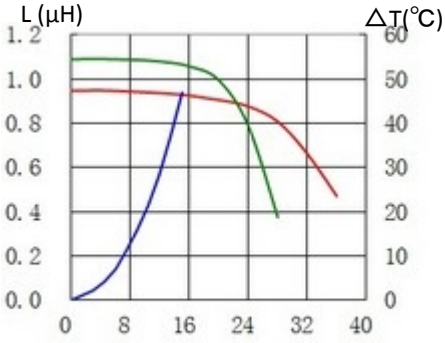
## CDRH12D77B/T150



### Saturation Current & Temperature Rise Graph

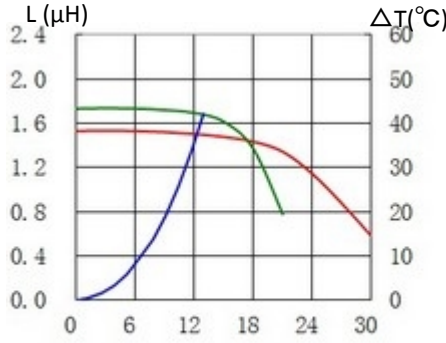
— L (20°C) — L (150°C) —  $\Delta T$

1. CDRH12D77BT150NP-1R0NC



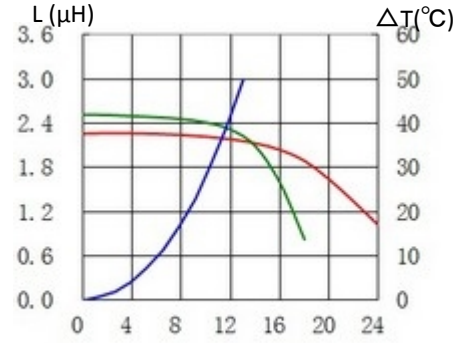
DC(A)

2. CDRH12D77BT150NP-1R5NC



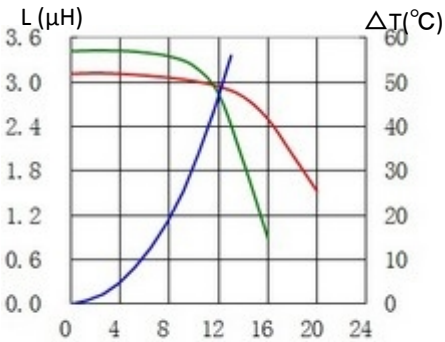
DC(A)

3. CDRH12D77BT150NP-2R2NC



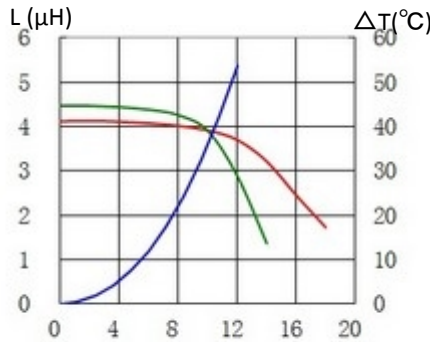
DC(A)

4. CDRH12D77BT150NP-3R3NC



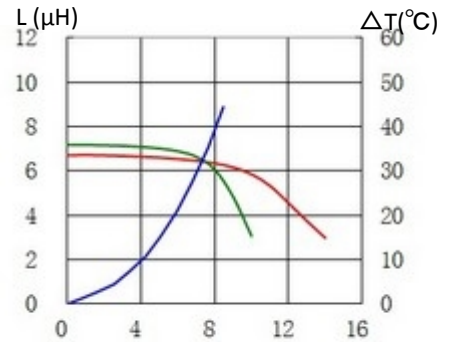
DC(A)

5. CDRH12D77BT150NP-4R2NC



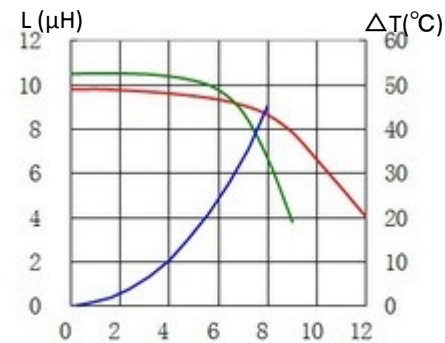
DC(A)

6. CDRH12D77BT150NP-6R8NC



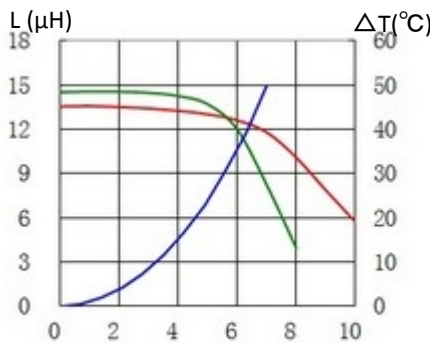
DC(A)

7. CDRH12D77BT150NP-100MC



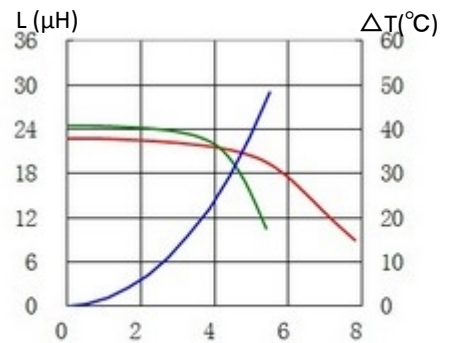
DC(A)

8. CDRH12D77BT150NP-150MC



DC(A)

9. CDRH12D77BT150NP-220MC



DC(A)

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

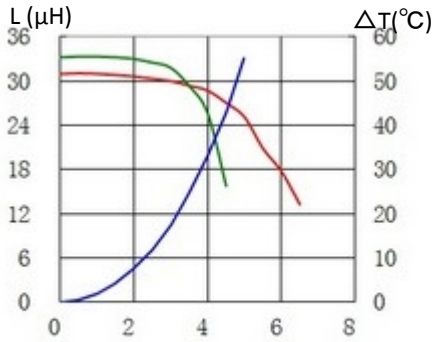
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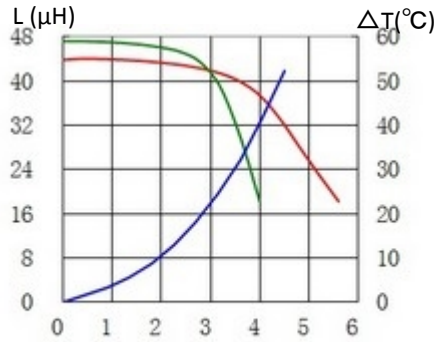
Recommended Type

10. CDRH12D77BT150NP-330MC



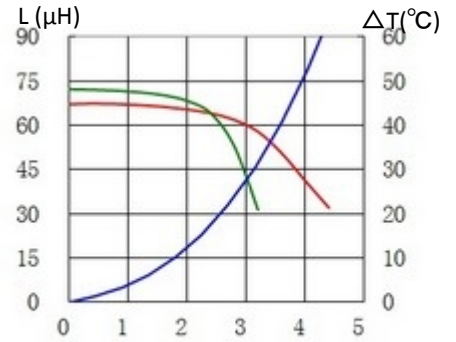
DC(A)

11. CDRH12D77BT150NP-470MC



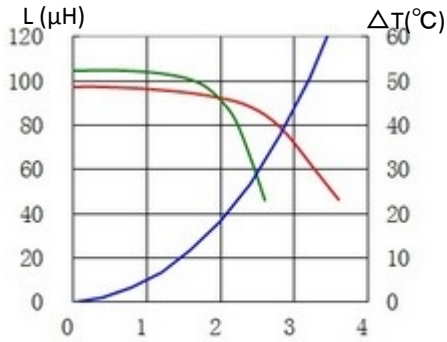
DC(A)

12. CDRH12D77BT150NP-680MC



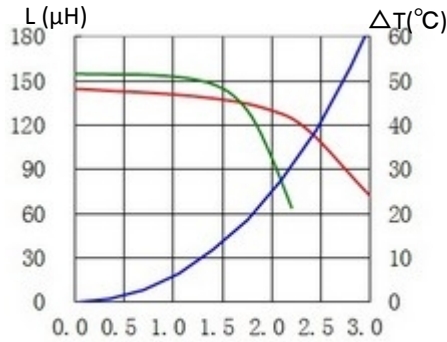
DC(A)

13. CDRH12D77BT150NP-101MC



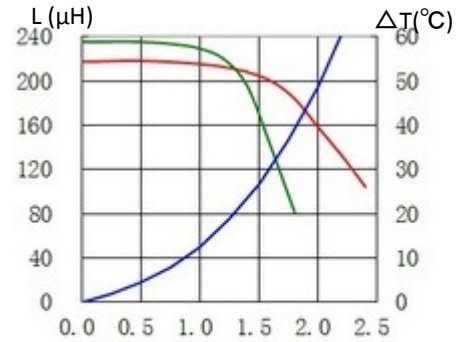
DC(A)

14. CDRH12D77BT150NP-151MC



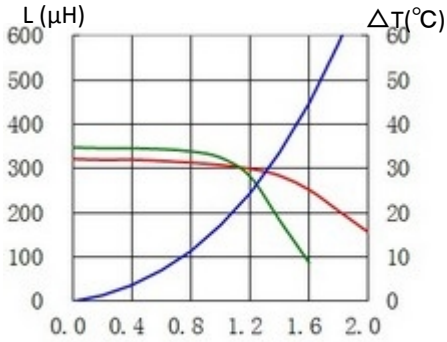
DC(A)

15. CDRH12D77BT150NP-221MC



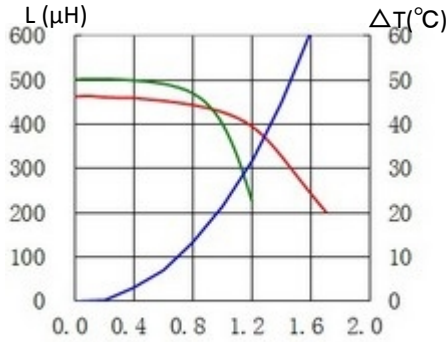
DC(A)

16. CDRH12D77BT150NP-331MC



DC(A)

17. CDRH12D77BT150NP-471MC



DC(A)



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