

SMD Power Inductor

CDRH70D45B/T150



Recommended Type

Description

- Magnetically shielded
- L×W×H: 7.7 × 7.3 × 4.8mm Max.
- Qualified AEC-Q200
- 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)

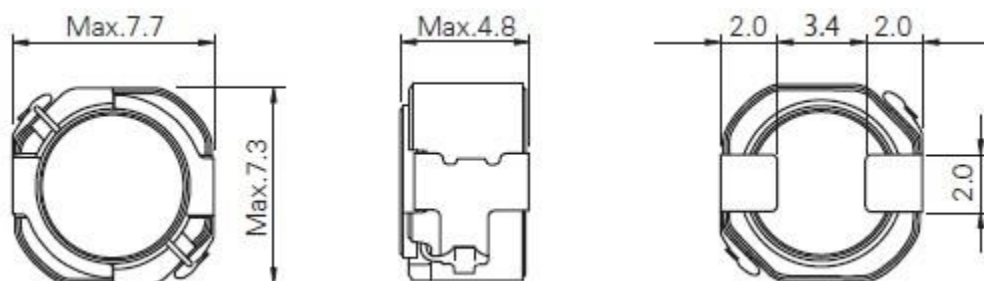
Packaging

- Carrier tape and reel packaging

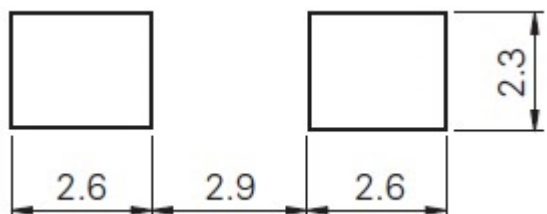
Applications

- High temp and high reliability automotive applications

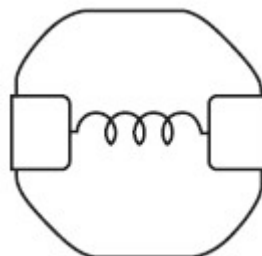
Dimension - [mm]



Recommended Land pattern - [mm]



Wire Connection





Electrical Characteristics

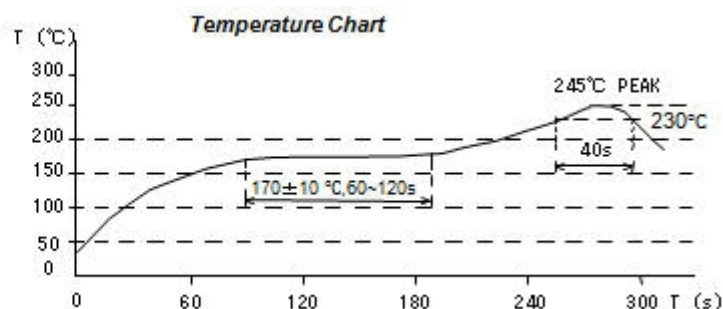
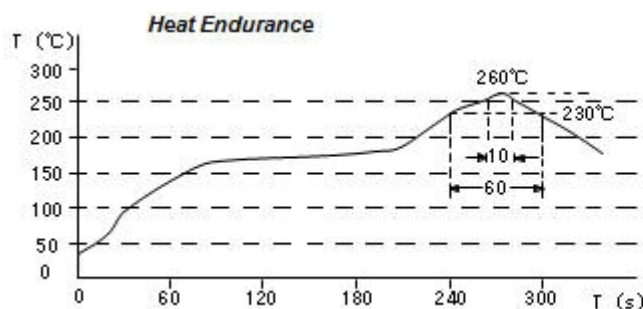
Part Number	Inductance [Within] (μ H) ※1	D.C.R. at 20°C [Within] (m Ω)	Saturation Current (A) Max.(Typ.) ※2	Temperature Rise Current (A) Max.(Typ.) ※3
CDRH70D45BT150NP-R80NC	0.80 $\pm$ 30%	7.00 $\pm$ 30%	9.00 (10.70)	8.20 (9.40)
CDRH70D45BT150NP-1R2NC	1.20 $\pm$ 30%	8.00 $\pm$ 30%	7.10 (8.40)	7.80 (8.70)
CDRH70D45BT150NP-1R5NC	1.50 $\pm$ 30%	9.00 $\pm$ 30%	6.30 (7.40)	7.40 (8.40)
CDRH70D45BT150NP-2R2NC	2.20 $\pm$ 30%	10.00 $\pm$ 30%	5.30 (6.20)	6.70 (7.60)
CDRH70D45BT150NP-3R3NC	3.30 $\pm$ 30%	13.00 $\pm$ 30%	4.30 (5.10)	5.90 (6.70)
CDRH70D45BT150NP-4R7NC	4.70 $\pm$ 30%	18.20 $\pm$ 30%	3.60 (4.20)	5.40 (6.20)
CDRH70D45BT150NP-6R8NC	6.80 $\pm$ 30%	22.00 $\pm$ 30%	3.10 (3.60)	4.50 (5.10)
CDRH70D45BT150NP-100MC	10.00 $\pm$ 20%	33.00 $\pm$ 20%	2.60 (3.00)	3.30 (3.80)
CDRH70D45BT150NP-150MC	15.00 $\pm$ 20%	55.00 $\pm$ 20%	2.00 (2.40)	2.70 (3.10)
CDRH70D45BT150NP-220MC	22.00 $\pm$ 20%	69.00 $\pm$ 20%	1.70 (2.00)	2.30 (2.60)
CDRH70D45BT150NP-330MC	33.00 $\pm$ 20%	97.00 $\pm$ 20%	1.40 (1.60)	2.00 (2.20)
CDRH70D45BT150NP-470MC	47.00 $\pm$ 20%	130 $\pm$ 20%	1.10 (1.30)	1.73 (1.97)
CDRH70D45BT150NP-680MC	68.00 $\pm$ 20%	190 $\pm$ 20%	0.94 (1.10)	1.38 (1.57)
CDRH70D45BT150NP-101MC	100 $\pm$ 20%	300 $\pm$ 20%	0.78 (0.92)	1.08 (1.23)
CDRH70D45BT150NP-151MC	150 $\pm$ 20%	430 $\pm$ 20%	0.63 (0.74)	0.92 (1.05)
CDRH70D45BT150NP-221MC	220 $\pm$ 20%	550 $\pm$ 20%	0.53 (0.62)	0.80 (0.91)
CDRH70D45BT150NP-331MC	330 $\pm$ 20%	920 $\pm$ 20%	0.43 (0.51)	0.59 (0.67)
CDRH70D45BT150NP-471MC	470 $\pm$ 20%	1620 $\pm$ 20%	0.37 (0.43)	0.48 (0.54)
CDRH70D45BT150NP-681MC	680 $\pm$ 20%	1750 $\pm$ 20%	0.30 (0.35)	0.43 (0.50)

※ 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 $\Delta T=40^{\circ}\text{C}$ ($T_a=20^{\circ}\text{C}$).

Solder Reflow Condition



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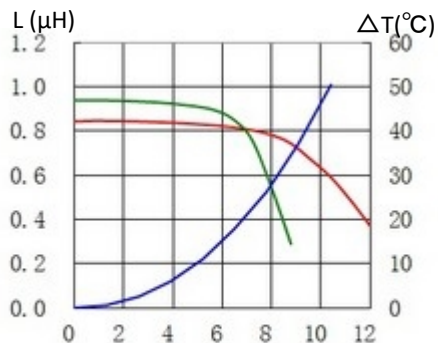
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Saturation Current & Temperature Rise Graph

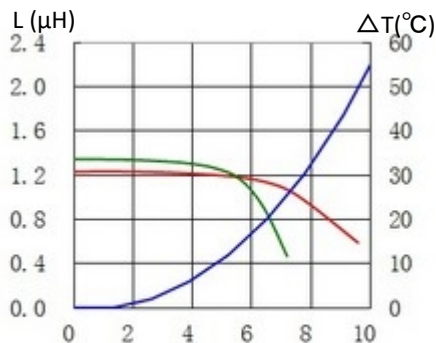
— L (20°C) — L (150°C) — ΔT

1. CDRH70D45BT150NP-R80NC



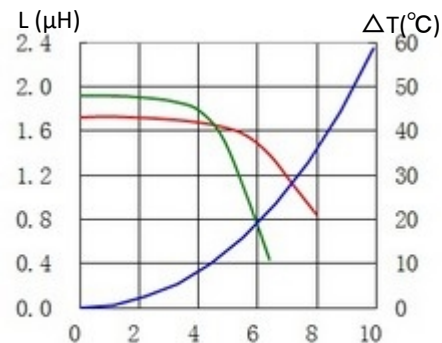
DC(A)

2. CDRH70D45BT150NP-1R2NC



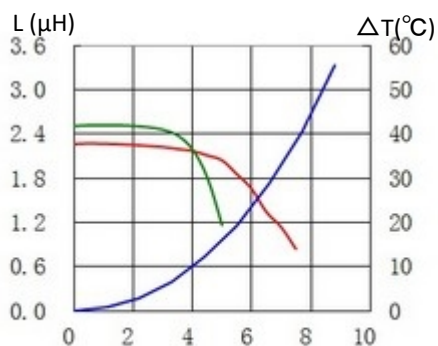
DC(A)

3. CDRH70D45BT150NP-1R5NC



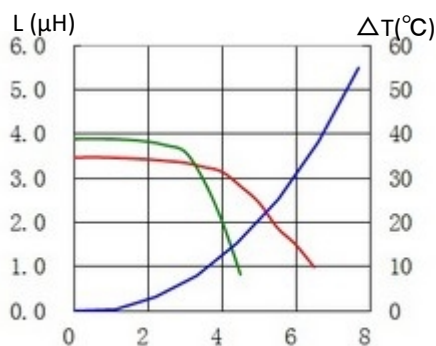
DC(A)

4. CDRH70D45BT150NP-2R2NC



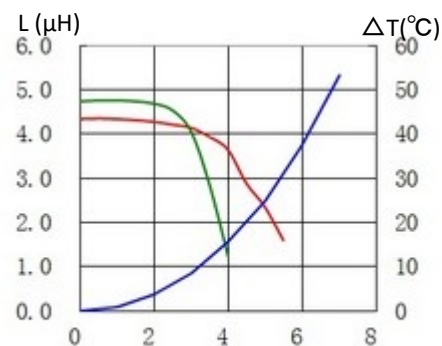
DC(A)

5. CDRH70D45BT150NP-3R3NC



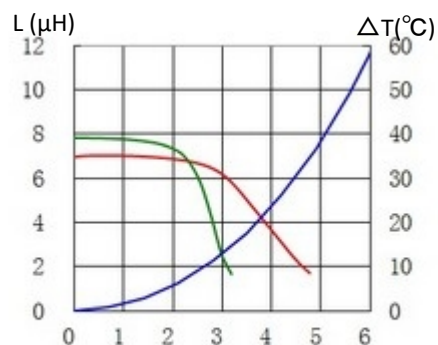
DC(A)

6. CDRH70D45BT150NP-4R7NC



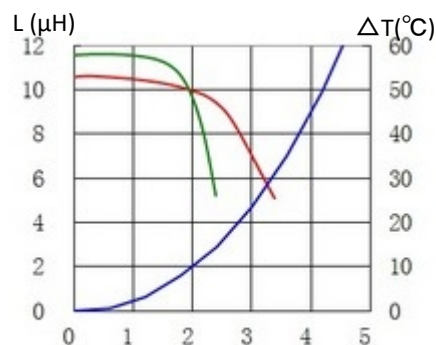
DC(A)

7. CDRH70D45BT150NP-6R8NC



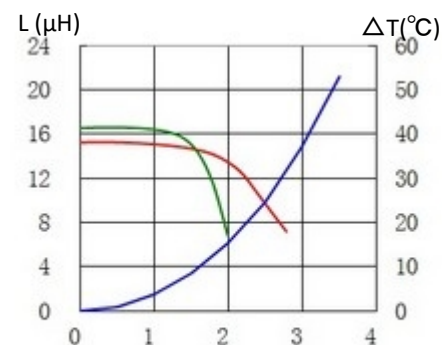
DC(A)

8. CDRH70D45BT150NP-100MC



DC(A)

9. CDRH70D45BT150NP-150MC



DC(A)

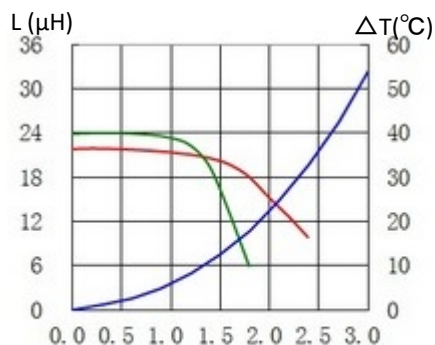
Note: This specification is subject to change without notice. Please contact your nearest sales office for updated information when placing an order.

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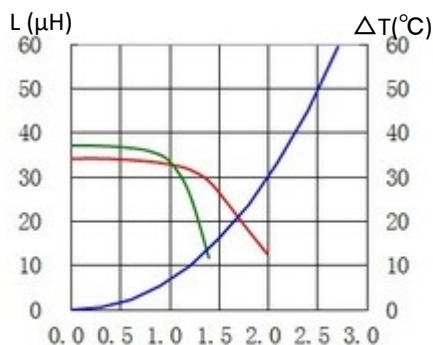


10. CDRH70D45BT150NP-220MC



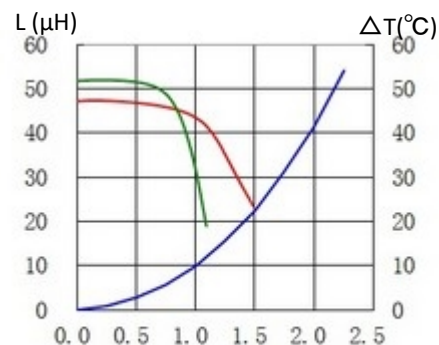
DC(A)

11. CDRH70D45BT150NP-330MC



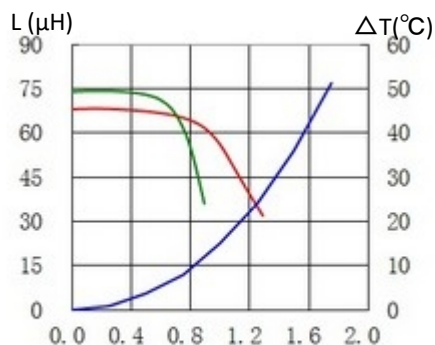
DC(A)

12. CDRH70D45BT150NP-470MC



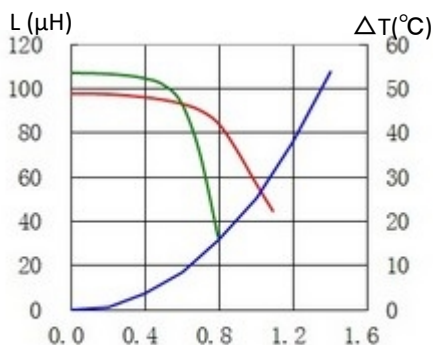
DC(A)

13. CDRH70D45BT150NP-680MC



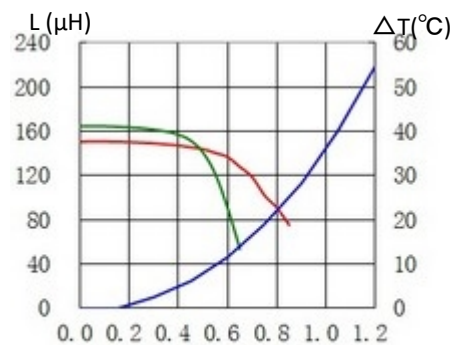
DC(A)

14. CDRH70D45BT150NP-101MC



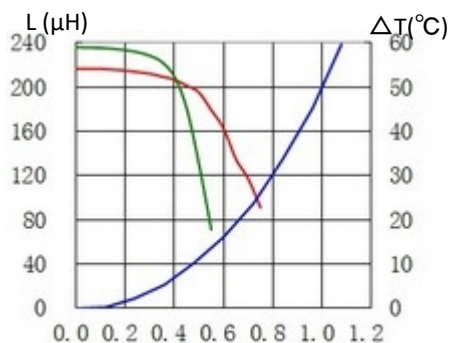
DC(A)

15. CDRH70D45BT150NP-151MC



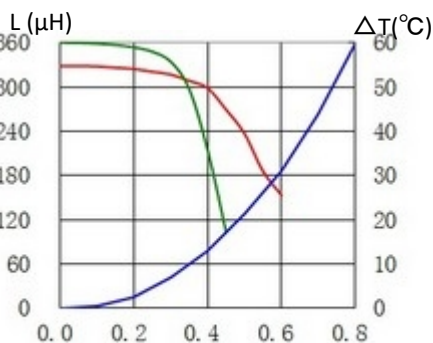
DC(A)

16. CDRH70D45BT150NP-221MC



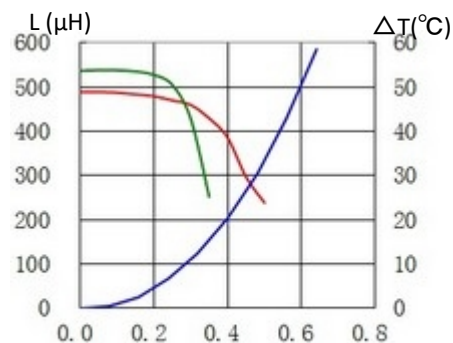
DC(A)

17. CDRH70D45BT150NP-331MC



DC(A)

18. CDRH70D45BT150NP-471MC



DC(A)

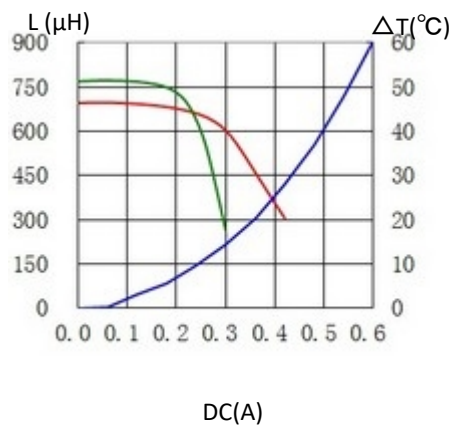
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Recommended Type

19. CDRH70D45BT150NP-681MC



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