

# SMD Power Inductor

## 0830CDMCC/DS



Recommended Type



### Description

- Metal compound molding type construction
- Magnetically shielded
- Low audible core noise
- Suitable for large current.
- LxWxH:8.4x8.0x3.0mm Max.
- Product weight: 1.0g (Ref.)
- Moisture Sensitivity Level: 1

### Environmental Data

- Operating temperature range: -55°C~+125°C (including coil's self temperature rise)
- Storage temperature range: -55°C~+125°C

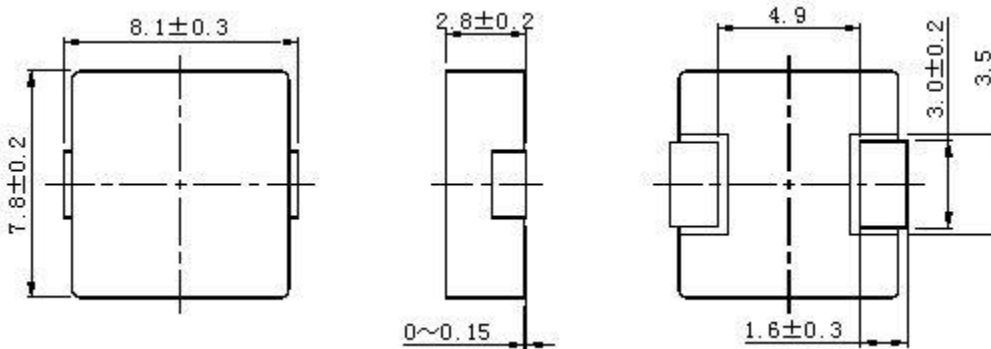
### Packaging

- Carrier tape and reel packaging.
- 1,000pcs per reel.

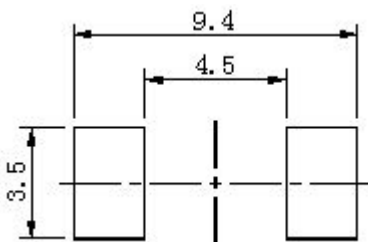
### Applications

- Ideally used in notebook, ultrabook, tablet PC, LCD display, Server application
- High current, POL converters
- Low profile, high current power supplies
- Battery powered devices.
- DC/DC converter in distributed power systems

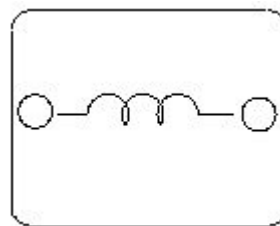
### Dimension - [mm]



### 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
0830CDMCCDS-R22MC	0.22 $\pm$ 20%	2.30 (1.90)	30.50 (36.00)	(27.00)
0830CDMCCDS-R33MC	0.33 $\pm$ 20%	2.60 (2.20)	24.00 (28.00)	(25.00)
0830CDMCCDS-R47MC	0.47 $\pm$ 20%	3.10 (2.60)	20.00 (23.00)	(23.00)
0830CDMCCDS-R68MC	0.68 $\pm$ 20%	4.30 (3.60)	17.60 (20.70)	(20.00)
0830CDMCCDS-R82MC	0.82 $\pm$ 20%	4.70 (3.90)	15.30 (18.00)	(19.00)
0830CDMCCDS-1R0MC	1.00 $\pm$ 20%	5.40 (4.50)	14.50 (17.00)	(17.00)
0830CDMCCDS-1R2MC	1.20 $\pm$ 20%	6.70 (5.60)	13.00 (15.30)	(16.00)
0830CDMCCDS-1R5MC	1.50 $\pm$ 20%	9.40 (7.80)	12.50 (15.00)	(11.50)
0830CDMCCDS-1R8MC	1.80 $\pm$ 20%	8.50 (7.10)	10.30 (12.20)	(14.00)
0830CDMCCDS-2R2MC	2.20 $\pm$ 20%	13.00 (10.80)	9.90 (11.70)	(10.00)
0830CDMCCDS-3R3MC	3.30 $\pm$ 20%	19.00 (16.20)	8.00 (9.50)	(9.50)
0830CDMCCDS-4R7MC	4.70 $\pm$ 20%	31.00 (26.00)	7.30 (8.60)	(6.50)
0830CDMCCDS-5R6MC	5.60 $\pm$ 20%	35.00 (29.00)	5.70 (6.80)	(6.30)
0830CDMCCDS-6R8MC	6.80 $\pm$ 20%	43.00 (36.00)	5.40 (6.30)	(6.00)
0830CDMCCDS-8R2MC	8.20 $\pm$ 20%	54.00 (45.00)	5.10 (6.00)	(5.00)
0830CDMCCDS-100MC	10.00 $\pm$ 20%	72.00 (60.00)	4.60 (5.40)	(4.50)
0830CDMCCDS-150MC	15.00 $\pm$ 20%	100 (84.00)	4.00 (4.70)	(3.60)
0830CDMCCDS-220MC	22.00 $\pm$ 20%	145 (120)	3.30 (3.90)	(3.00)
0830CDMCCDS-330MC	33.00 $\pm$ 20%	204 (170)	2.80 (3.20)	(2.50)

※1 Measuring frequency Inductance at 100kHz 1V

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

※3 Temperature rise current: The actual value of D.C. current when the temperature of coil becomes

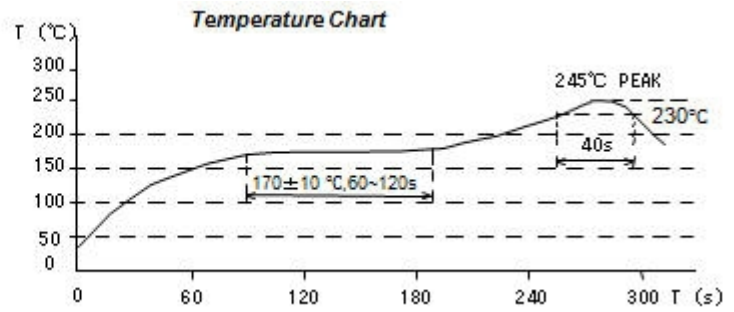
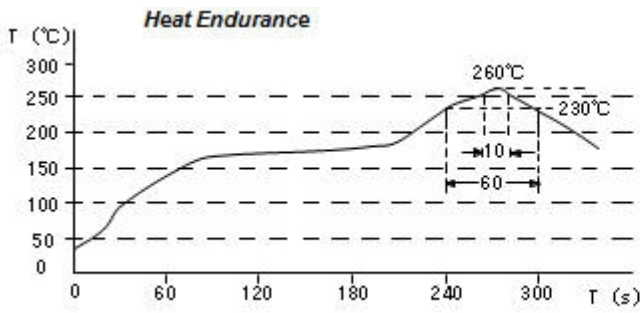
$\Delta T=40^{\circ}\text{C}$  ( $T_a=25^{\circ}\text{C}$ ). (Test board condition: FR4, Copper=70  $\mu$ m, four-layer PWB t=1.6mm)

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### Solder Reflow Condition



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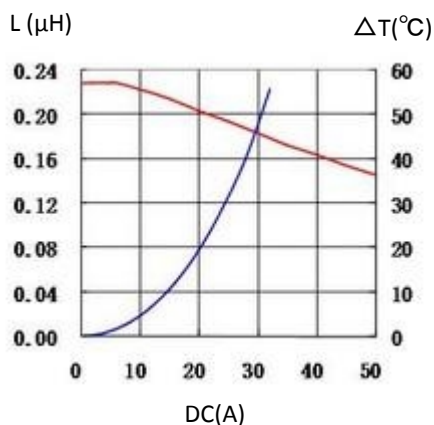
## 0830CDMCC/DS



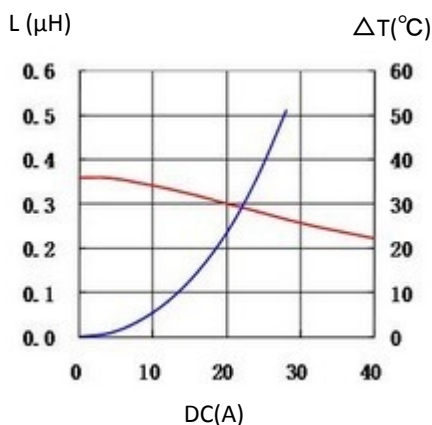
### Saturation Current & Temperature Rise Graph

— L (20°C)    —  $\Delta T$

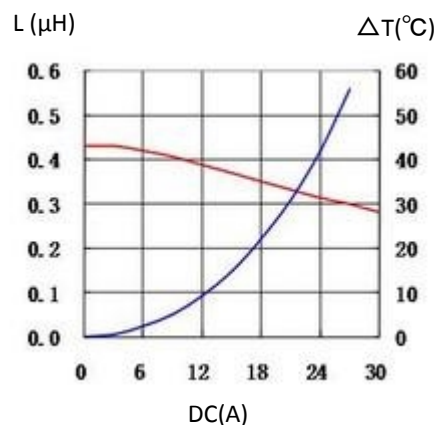
1. 0830CDMCCDS-R22MC



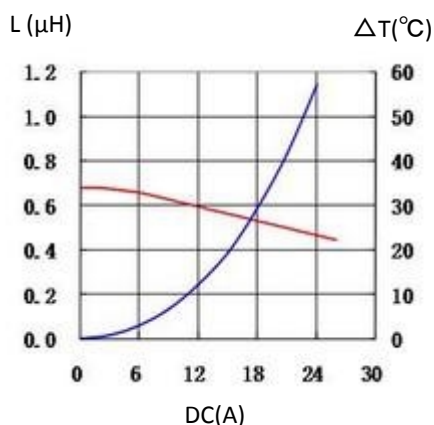
2. 0830CDMCCDS-R33MC



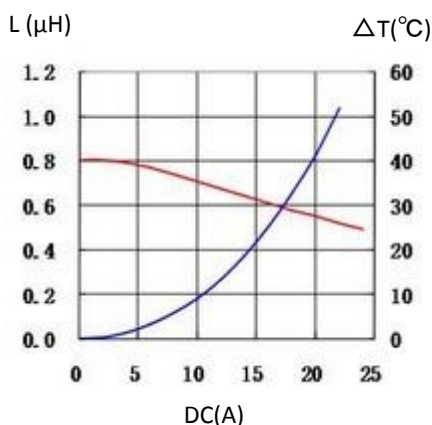
3. 0830CDMCCDS-R47MC



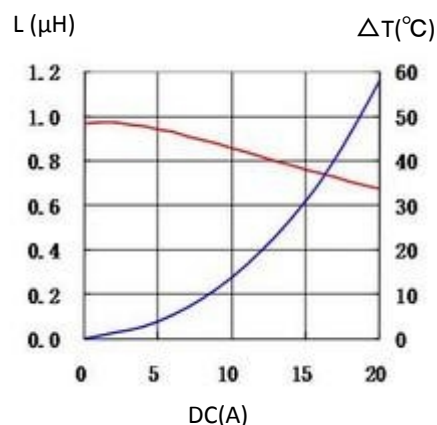
4. 0830CDMCCDS-R68MC



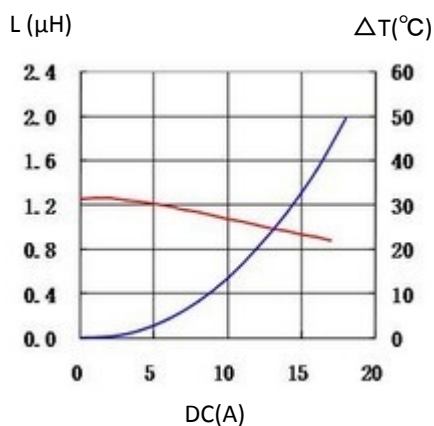
5. 0830CDMCCDS-R82MC



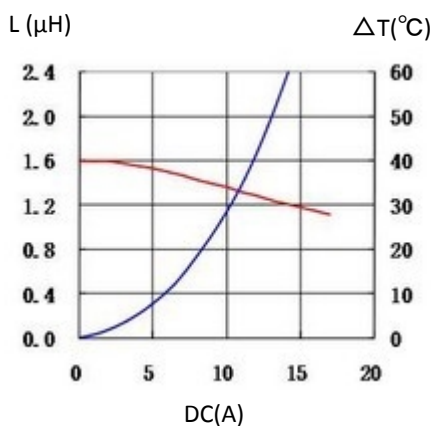
6. 0830CDMCCDS-1R0MC



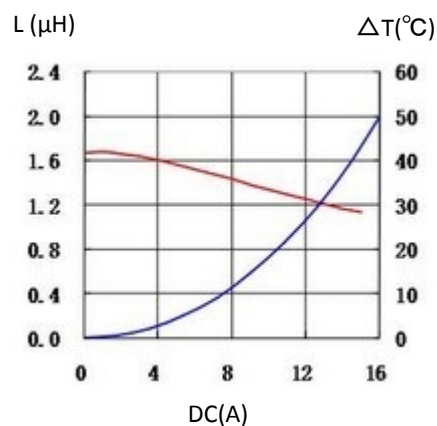
7. 0830CDMCCDS-1R2MC



8. 0830CDMCCDS-1R5MC



9. 0830CDMCCDS-1R8MC



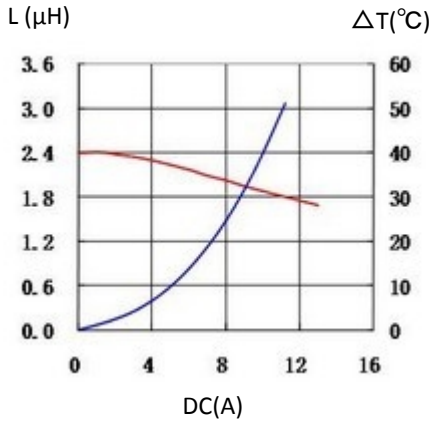
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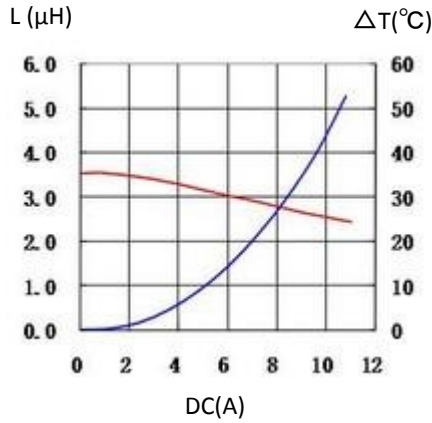


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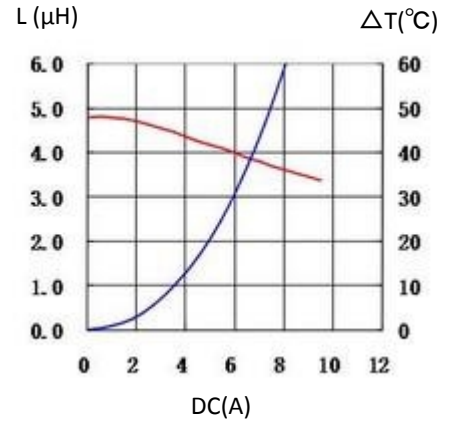
10. 0830CDMCCDS-2R2MC



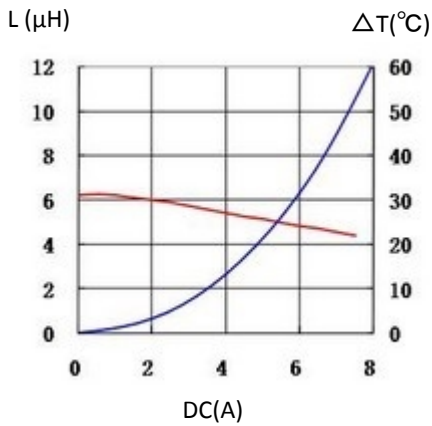
11. 0830CDMCCDS-3R3MC



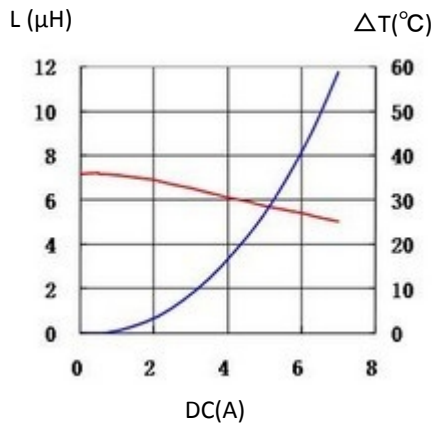
12. 0830CDMCCDS-4R7MC



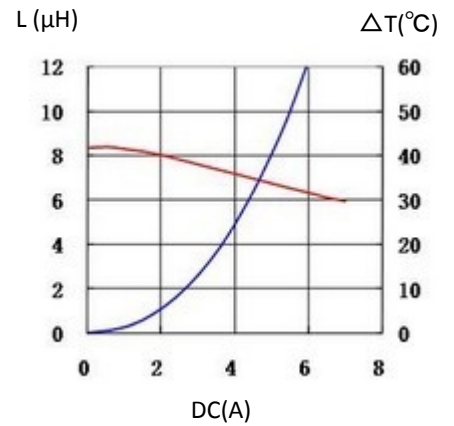
13. 0830CDMCCDS-5R6MC



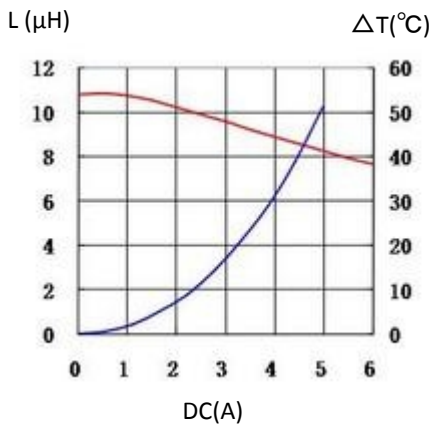
14. 0830CDMCCDS-6R8MC



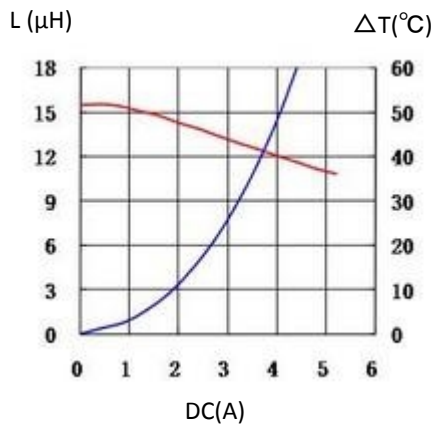
15. 0830CDMCCDS-8R2MC



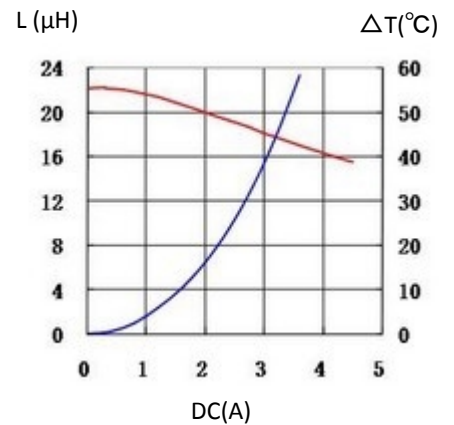
16. 0830CDMCCDS-100MC



17. 0830CDMCCDS-150MC



18. 0830CDMCCDS-220MC

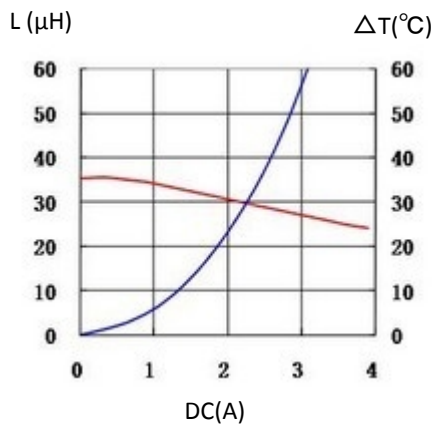


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19. 0830CDMCCDS-330MC



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