

SMD Power Inductor

0415CDMCC/DS



Description

- Metal compound molding type construction
- Magnetically shielded
- Low audible core noise
- Suitable for large current.
- L×W×H:4.75×4.45×1.5mm Max.
- Product weight: 0.146g (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

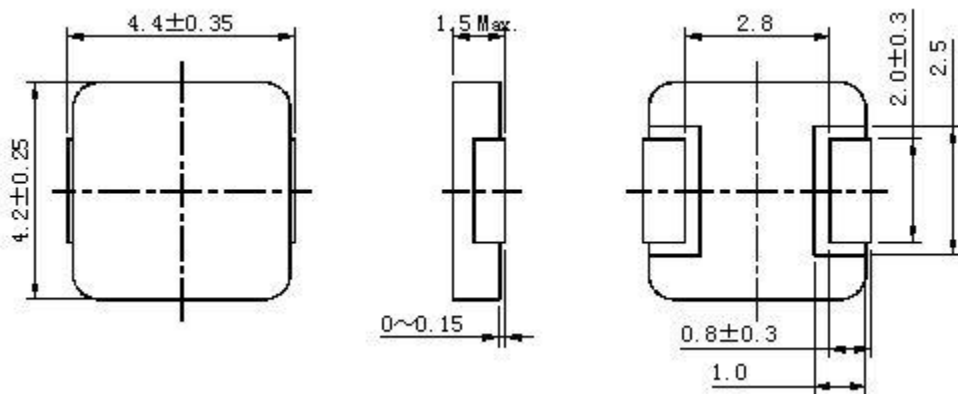
Packaging

- Carrier tape and reel packaging.
- 3000pcs per reel.

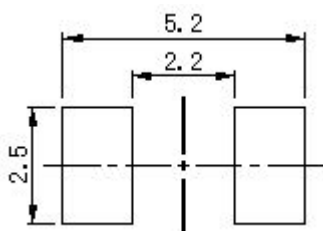
Applications

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

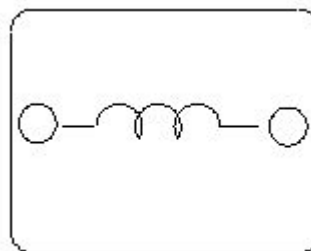
Dimension - [mm]



Recommended Land pattern - [mm]



Wire Connection



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Electrical Characteristics

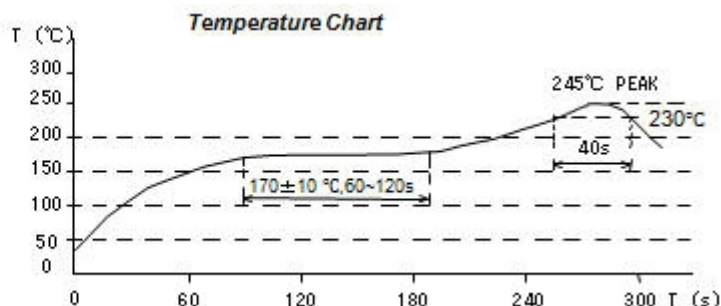
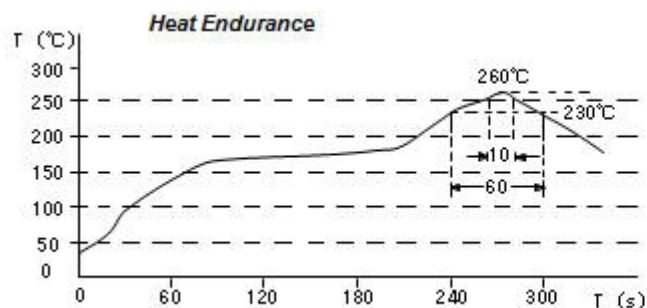
Part Number	Inductance [Within] (μ H) ※1	D.C.R. at 20°C Max.(Typ.) (m Ω)	Saturation Current (A) Max.(Typ.) ※2	Temperature Rise Current (A) Max.(Typ.) ※3
0415CDMCCDS-R22MC	0.22 \pm 20%	7.20 (6.00)	11.90 (14.00)	(12.00)
0415CDMCCDS-R33MC	0.33 \pm 20%	8.40 (7.00)	9.30 (11.00)	(11.60)
0415CDMCCDS-R47MC	0.47 \pm 20%	13.20 (11.00)	8.50 (10.00)	(8.40)
0415CDMCCDS-R56MC	0.56 \pm 20%	14.40 (12.00)	7.40 (8.70)	(8.70)
0415CDMCCDS-R68MC	0.68 \pm 20%	19.20 (16.00)	7.30 (8.60)	(7.30)
0415CDMCCDS-1R0MC	1.00 \pm 20%	27.60 (23.00)	6.80 (8.00)	(5.60)
0415CDMCCDS-1R5MC	1.50 \pm 20%	42.00 (35.00)	5.10 (6.00)	(4.70)
0415CDMCCDS-2R2MC	2.20 \pm 20%	78.00 (65.00)	4.70 (5.50)	(3.30)
0415CDMCCDS-3R3MC	3.30 \pm 20%	92.40 (77.00)	3.40 (4.00)	(3.20)
0415CDMCCDS-4R7MC	4.70 \pm 20%	130 (108)	2.60 (3.00)	(2.60)
0415CDMCCDS-6R8MC	6.80 \pm 20%	206.40 (172)	2.10 (2.50)	(2.10)

※1 Measuring frequency Inductance at 100kHz 1V.

※2 Saturation current: This indicates the actual 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 μ m, four-layer PWB t=1.6mm)

Solder Reflow Condition



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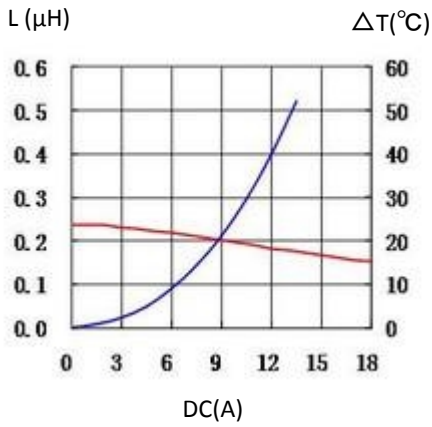
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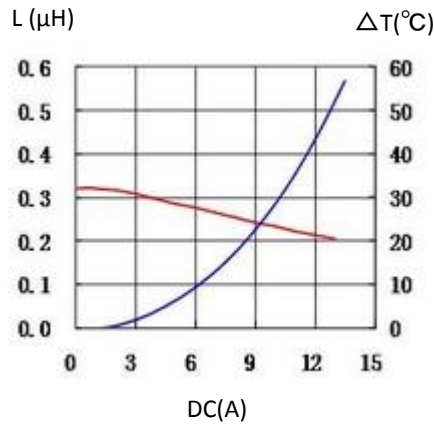
Saturation Current & Temperature Rise Graph

— L (20°C) — ΔT

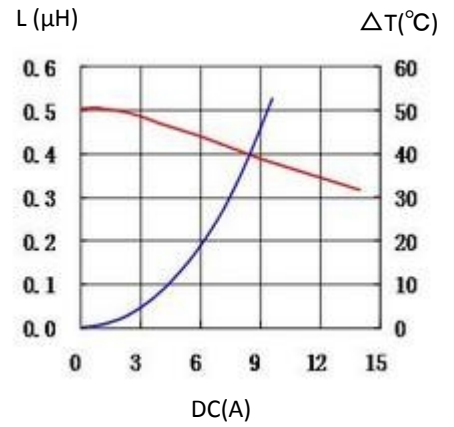
1. 0415CDMCCDS-R22MC



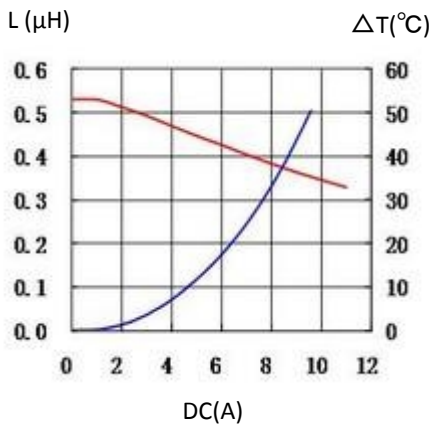
2. 0415CDMCCDS-R33MC



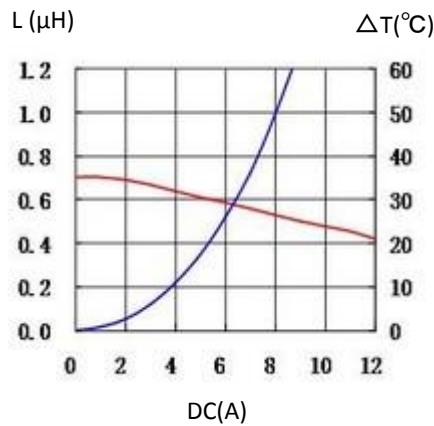
3. 0415CDMCCDS-R47MC



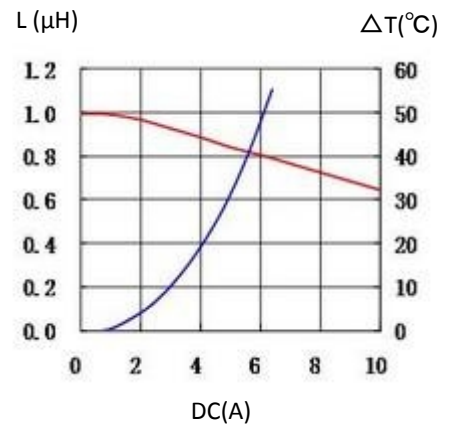
4. 0415CDMCCDS-R56MC



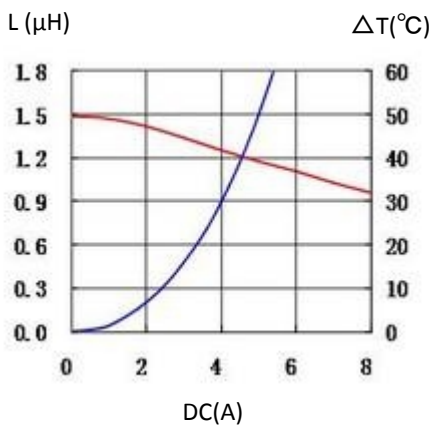
5. 0415CDMCCDS-R68MC



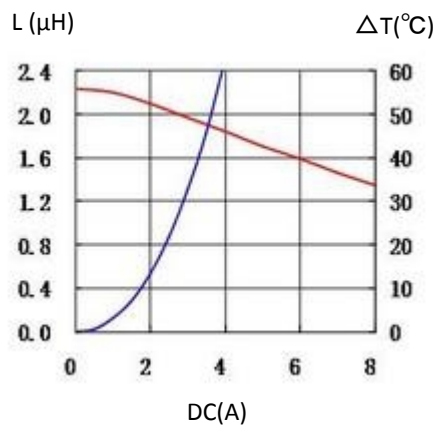
6. 0415CDMCCDS-1R0MC



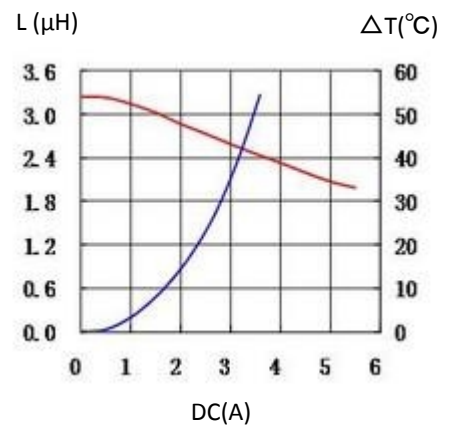
7. 0415CDMCCDS-1R5MC



8. 0415CDMCCDS-2R2MC



9. 0415CDMCCDS-3R3MC



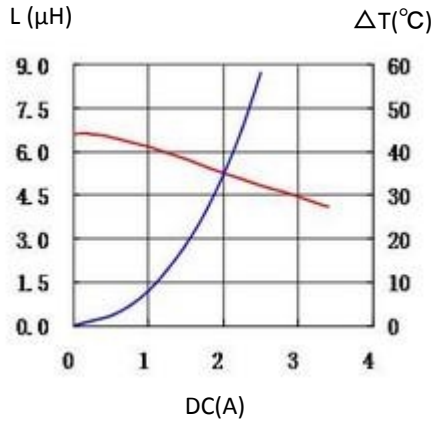
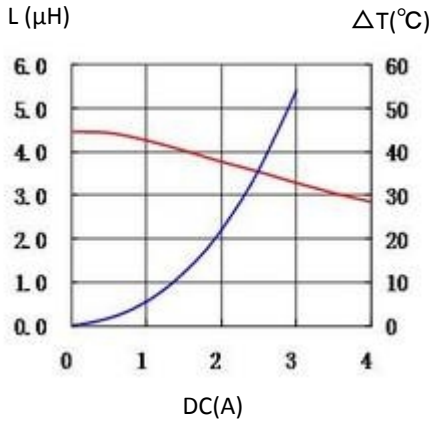
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10. 0415CDMCCDS-4R7MC

11. 0415CDMCCDS-6R8MC



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