

SMD Power Inductor

0512CDMCC/DS



Description

- Metal compound molding type construction
- Magnetically shielded
- Low audible core noise
- Suitable for large current.
- L×W×H:5.7×5.4×1.2mm Max.
- Product weight: 0.164g (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

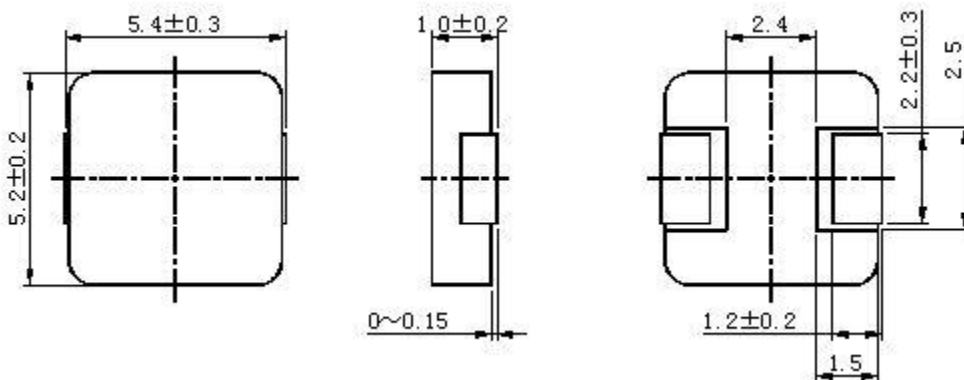
Packaging

- Carrier tape and reel packaging.
- 2000pcs per reel

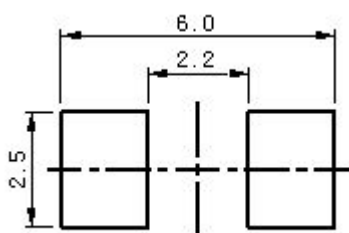
Applications

- 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.

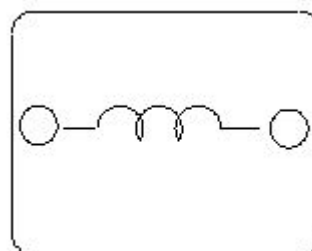
Dimension - [mm]



Recommended Land pattern - [mm]



Wire Connection



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Electrical Characteristics

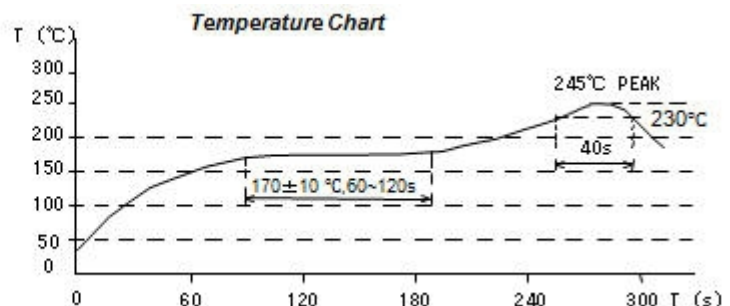
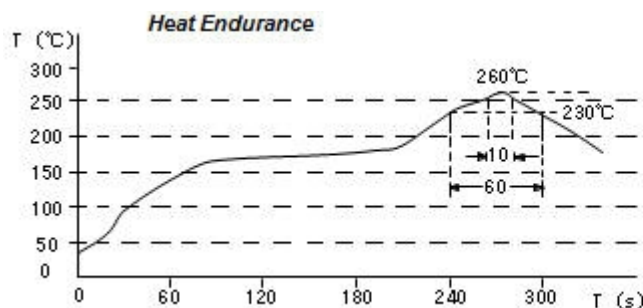
Part Number	Inductance [Within] (μ H) ※1	D.C.R. at 20°C Max.(Typ.) (m Ω)	Saturation Current (A) Max.(Typ.) ※2	Temperature Rise Current (A) Max.(Typ.) ※3
0512CDMCCDS-R10MC	0.10 \pm 20%	5.40 (4.50)	14.50 (17.00)	(14.00)
0512CDMCCDS-R22MC	0.22 \pm 20%	8.40 (7.00)	11.90 (14.00)	(10.60)
0512CDMCCDS-R33MC	0.33 \pm 20%	10.80 (9.00)	11.00 (13.00)	(9.50)
0512CDMCCDS-R47MC	0.47 \pm 20%	13.20 (11.00)	9.40 (11.00)	(8.80)
0512CDMCCDS-R56MC	0.56 \pm 20%	18.60 (15.50)	6.80 (8.00)	(7.20)
0512CDMCCDS-R68MC	0.68 \pm 20%	20.40 (17.00)	6.60 (7.80)	(7.00)
0512CDMCCDS-1R0MC	1.00 \pm 20%	31.80 (26.50)	5.50 (6.50)	(5.70)
0512CDMCCDS-1R5MC	1.50 \pm 20%	42.00 (35.00)	5.10 (6.00)	(5.30)
0512CDMCCDS-2R2MC	2.20 \pm 20%	72.60 (60.50)	4.10 (4.80)	(3.60)
0512CDMCCDS-3R3MC	3.30 \pm 20%	107.40 (89.50)	3.20 (3.80)	(2.90)
0512CDMCCDS-4R7MC	4.70 \pm 20%	166.20 (138.50)	2.70 (3.20)	(2.30)

※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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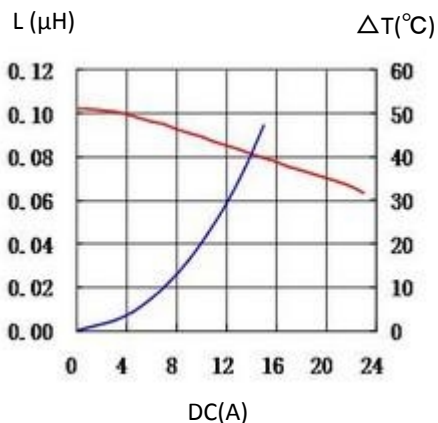
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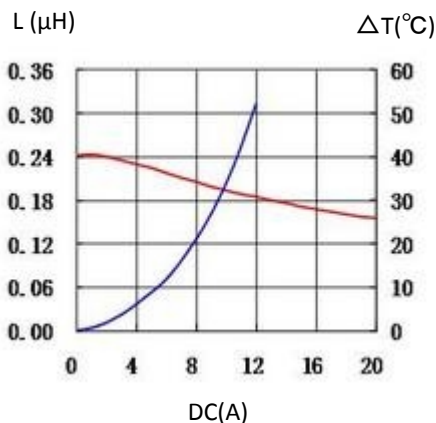
Saturation Current & Temperature Rise Graph

— L (20°C) — ΔT

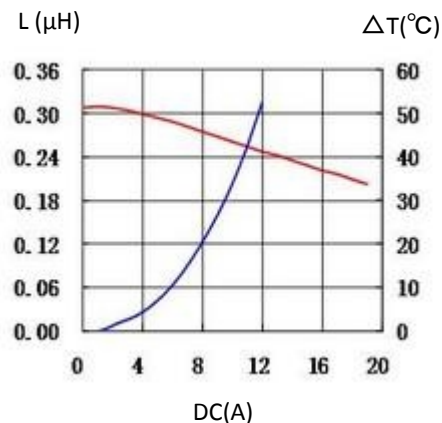
1. 0512CDMCCDS-R10MC



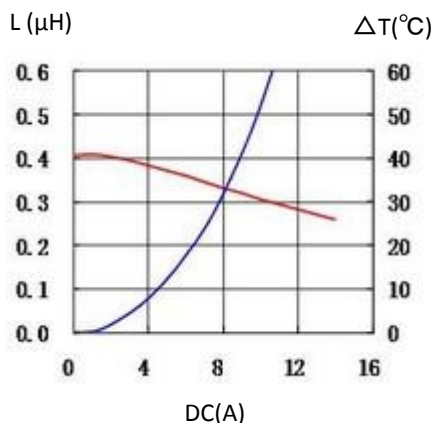
2. 0512CDMCCDS-R22MC



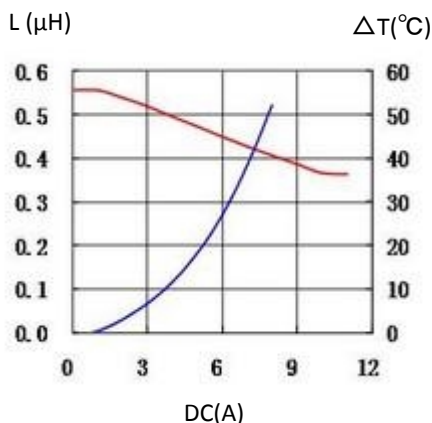
3. 0512CDMCCDS-R33MC



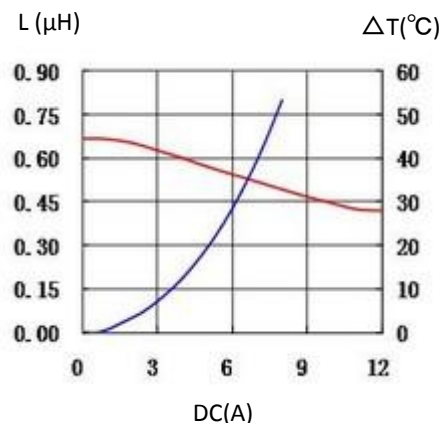
4. 0512CDMCCDS-R47MC



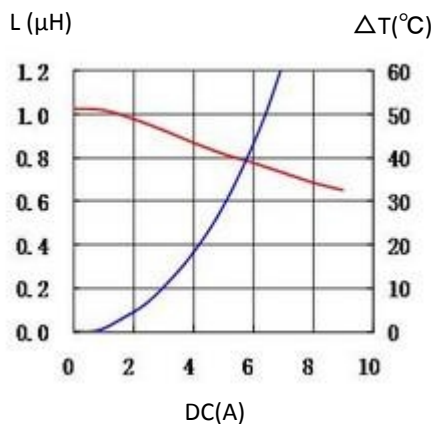
5. 0512CDMCCDS-R56MC



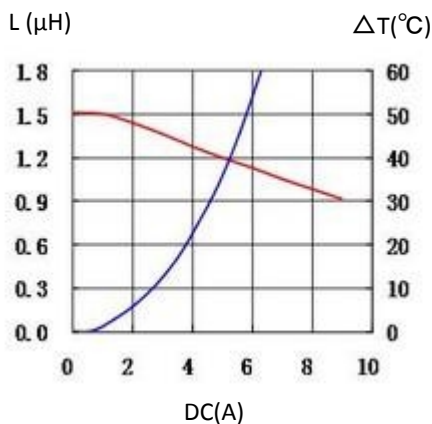
6. 0512CDMCCDS-R68MC



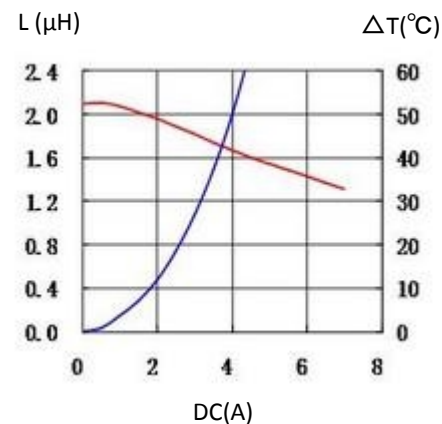
7. 0512CDMCCDS-1R0MC



8. 0512CDMCCDS-1R5MC



9. 0512CDMCCDS-2R2MC



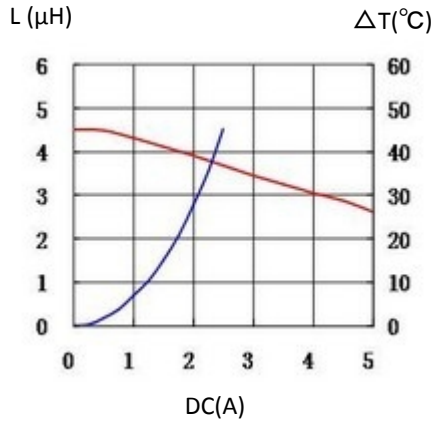
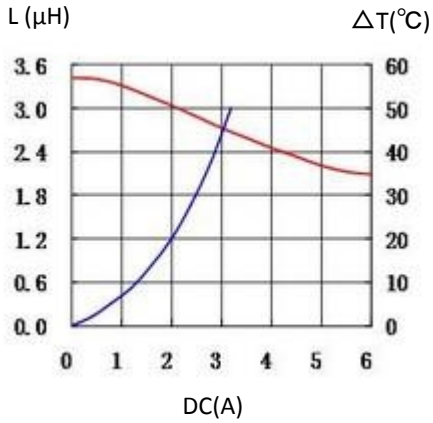
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10. 0512CDMCCDS-3R3MC

11. 0512CDMCCDS-4R7MC



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