

SMD Power Inductor

177CDMCC/DS



Description

- Metal compound molding type construction.
- Magnetically shielded.
- Low audible core noise.
- Suitable for large current.
- L×W×H: 17.45×17.15×7.0mm Max.
- Product weight: 11.5 g (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

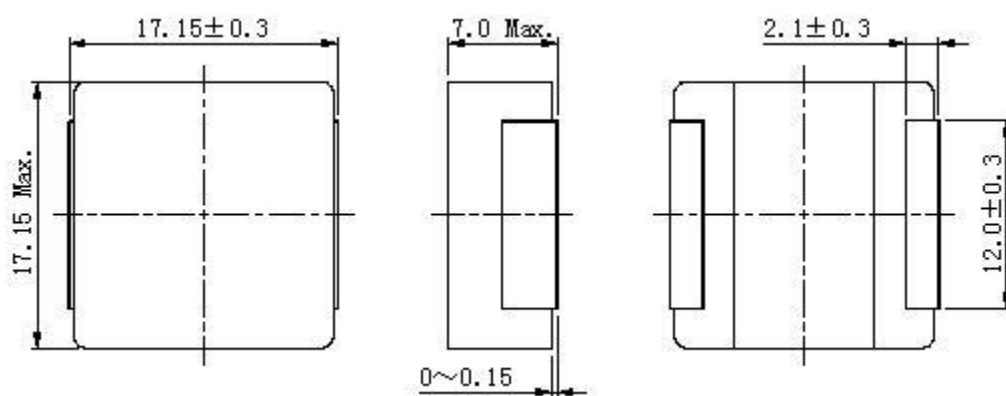
Packaging

- Carrier tape and reel packaging
- 200pcs per reel

Applications

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

Dimension - [mm]

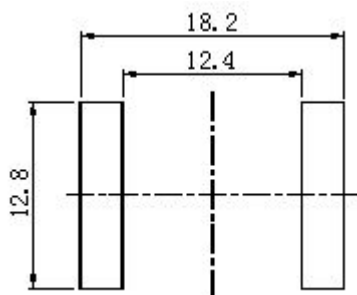


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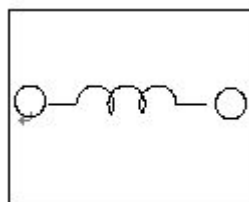
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Recommended Land pattern - [mm]



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
177CDMCCDS-R47MC	0.47 $\pm$ 20%	0.90 (0.78)	72.60 (85.50)	(57.00)
177CDMCCDS-R68MC	0.68 $\pm$ 20%	1.21 (1.05)	68.00 (80.00)	(47.00)
177CDMCCDS-1R0MC	1.00 $\pm$ 20%	1.38 (1.20)	51.60 (60.80)	(44.60)
177CDMCCDS-2R2MC	2.20 $\pm$ 20%	2.65 (2.30)	34.60 (40.80)	(31.20)
177CDMCCDS-3R3MC	3.30 $\pm$ 20%	3.11 (2.70)	27.00 (31.80)	(26.50)
177CDMCCDS-4R7MC	4.70 $\pm$ 20%	4.83 (4.20)	29.70 (35.00)	(18.00)
177CDMCCDS-6R8MC	6.80 $\pm$ 20%	7.13 (6.20)	21.00 (24.70)	(16.70)
177CDMCCDS-8R2MC	8.20 $\pm$ 20%	9.20 (8.00)	19.20 (22.60)	(14.50)
177CDMCCDS-100MC	10.00 $\pm$ 20%	10.60 (9.20)	18.00 (21.30)	(13.50)
177CDMCCDS-150MC	15.00 $\pm$ 20%	14.70 (12.80)	14.50 (17.00)	(12.50)
177CDMCCDS-220MC	22.00 $\pm$ 20%	25.30 (22.00)	13.60 (16.00)	(8.80)
177CDMCCDS-330MC	33.00 $\pm$ 20%	38.00 (33.00)	9.60 (11.40)	(7.20)
177CDMCCDS-470MC	47.00 $\pm$ 20%	49.20 (42.80)	7.70 (9.10)	(6.50)

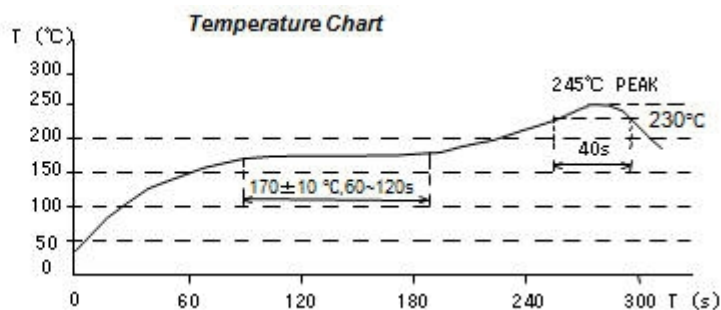
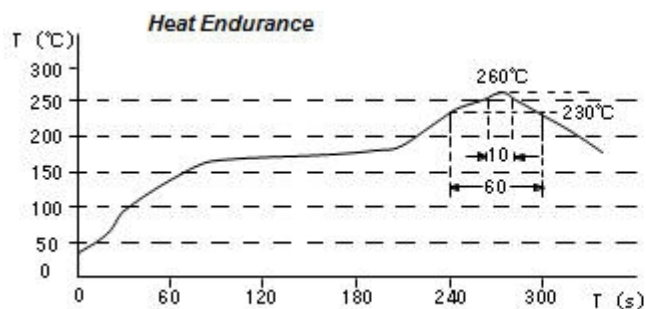
Measuring frequency: Inductance at 100kHz, 1V

Saturation current: The actual value of DC current when the inductance is over 70% of the initial value.

Temperature rise current: The actual value of DC current when the coil temperature rise is $\Delta T=40^{\circ}\text{C}$.

(Test board condition : FR4, Copper=70 μ m, four-layer PWB, t=1.6mm)

Solder Reflow Condition



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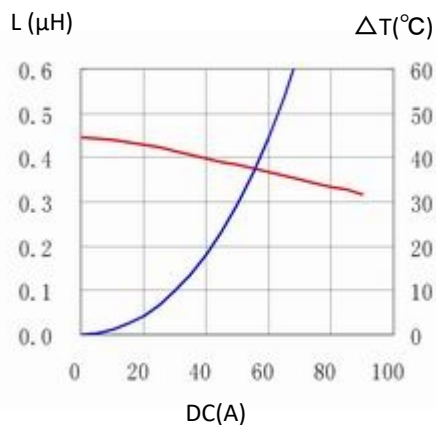
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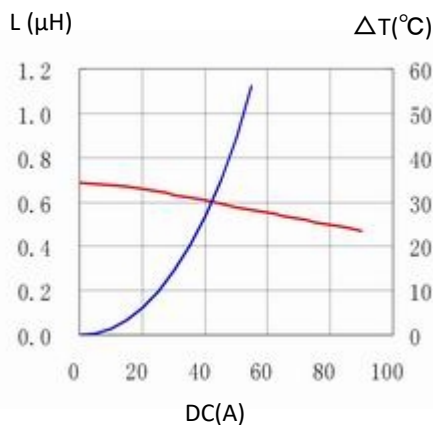
Saturation Current & Temperature Rise Graph

— L (20°C) — ΔT

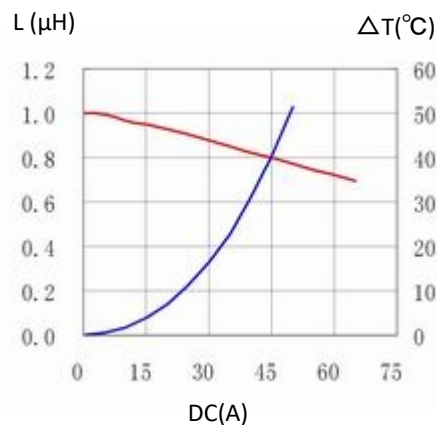
1. 177CDMCCDS-R47MC



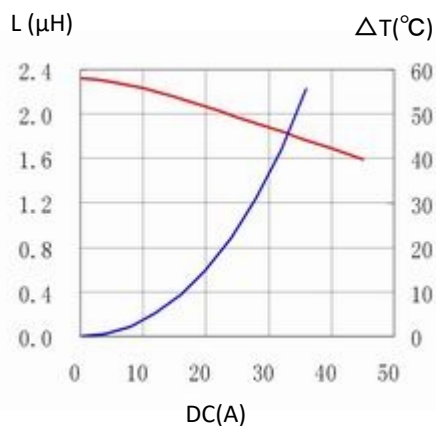
2. 177CDMCCDS-R68MC



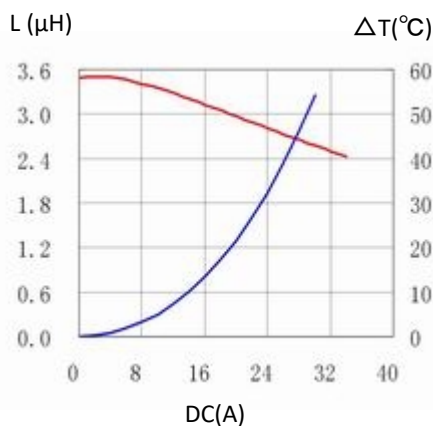
3. 177CDMCCDS-1R0MC



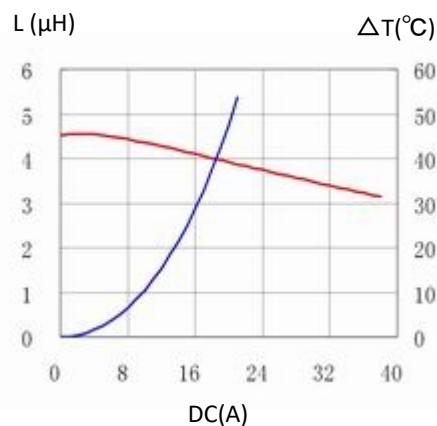
4. 177CDMCCDS-2R2MC



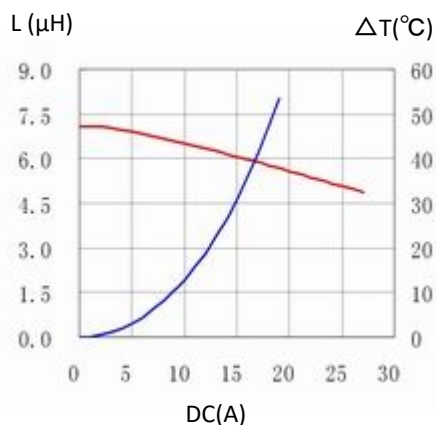
5. 177CDMCCDS-3R3MC



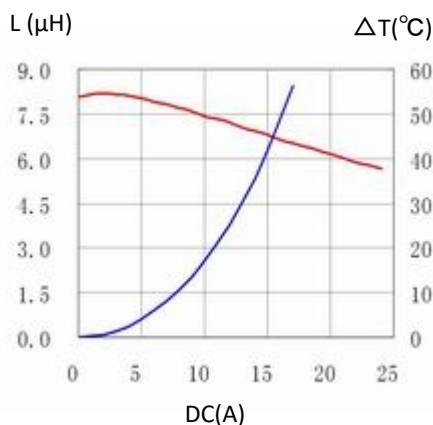
6. 177CDMCCDS-4R7MC



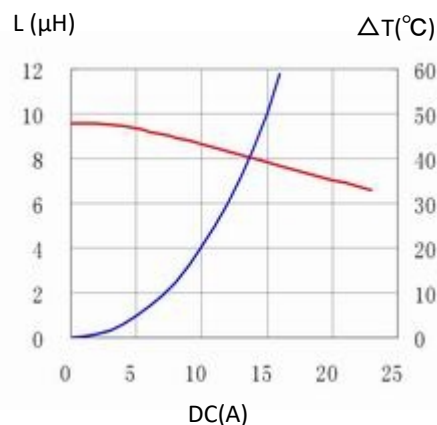
7. 177CDMCCDS-6R8MC



8. 177CDMCCDS-8R2MC



9. 177CDMCCDS-100MC

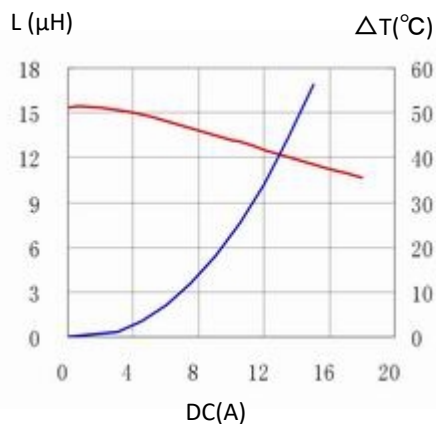


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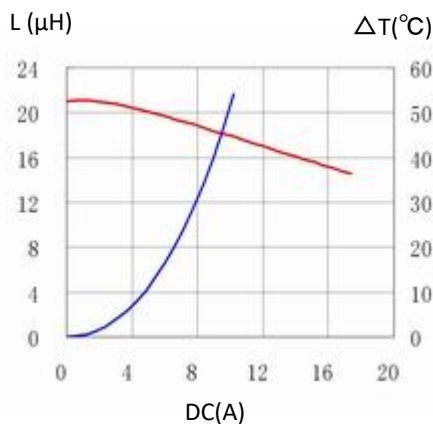
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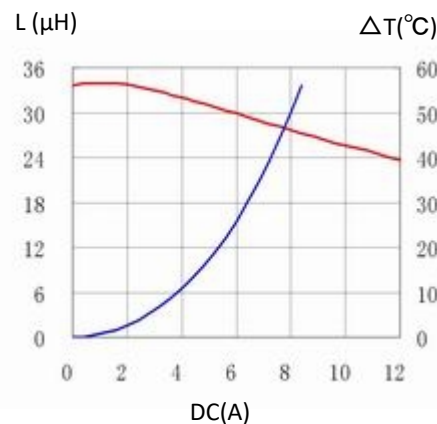
10. 177CDMCCDS-150MC



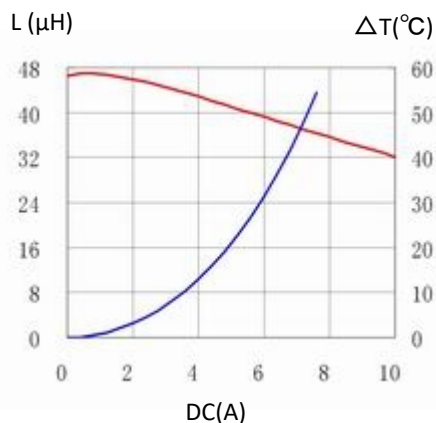
11. 177CDMCCDS-220MC



12. 177CDMCCDS-330MC



13. 177CDMCCDS-470MC



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