

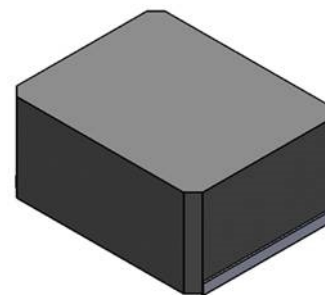
SMD Power Inductor

252012CDMCD/DS



Description

- Metal compound molding type construction
- Magnetically shielded
- Low audible core noise
- Suitable for large current.
- L×W×H:2.7×2.2×1.2mm Max.
- Product weight: 36mg (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

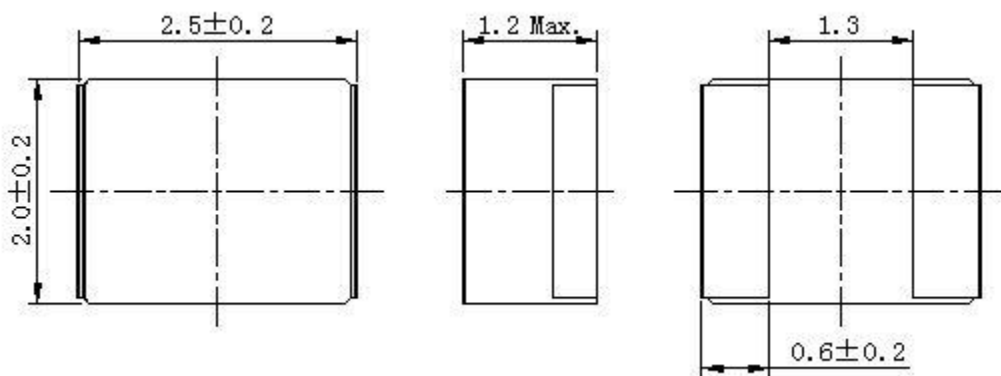
Packaging

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

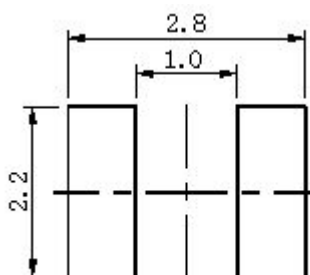
Applications

- DC/DC converter for CPU in Notebook PC. Smartphones, LCD displays, HDDs, DVDs, DVCs, DSCs, PDAs ect..
- Thin type on-board power supply module for exchanger VRM for server.
- Low profile, high current power supplies
- Battery powered devices

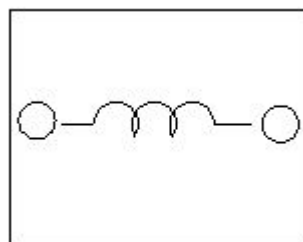
Dimension - [mm]



Recommended Land pattern - [mm]



Wire Connection



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Electrical Characteristics

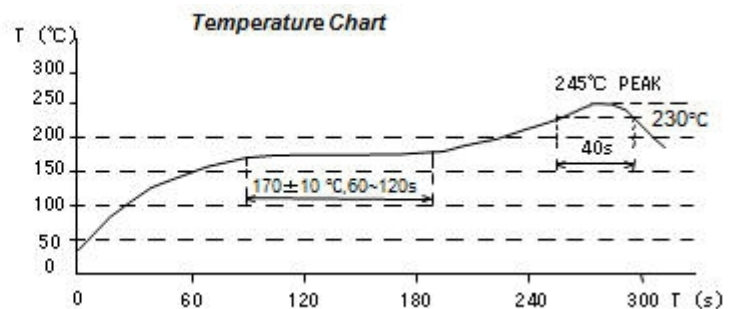
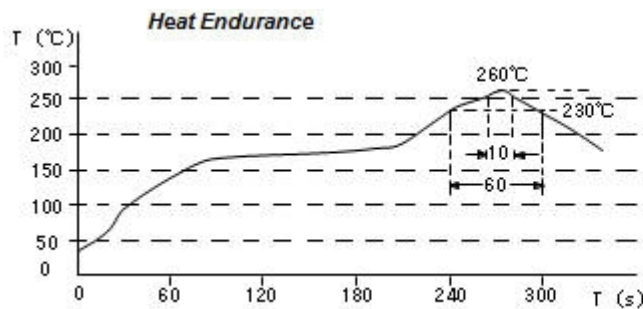
Part Number	Inductance [Within] (μ H) ※1	D.C.R. at 20°C Max.(Typ.) (m Ω)	Saturation Current (A) Max.(Typ.) ※2	Temperature Rise Current (A) Max.(Typ.) ※3
252012CDMCDDS-R47MC	0.47 \pm 20%	21.00 (17.00)	6.20 (7.30)	(6.10)
252012CDMCDDS-R68MC	0.68 \pm 20%	30.00 (25.00)	5.40 (6.30)	(5.50)
252012CDMCDDS-1R0MC	1.00 \pm 20%	42.00 (35.00)	4.60 (5.40)	(4.20)
252012CDMCDDS-1R5MC	1.50 \pm 20%	61.00 (53.00)	3.10 (3.60)	(3.60)
252012CDMCDDS-2R2MC	2.20 \pm 20%	82.00 (68.00)	2.80 (3.30)	(3.00)

※1 Measuring frequency Inductance at 1MHz,0.1V

※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= $70\mu\text{m}$, four-layer PWB $t=1.6\text{mm}$)

Solder Reflow Condition



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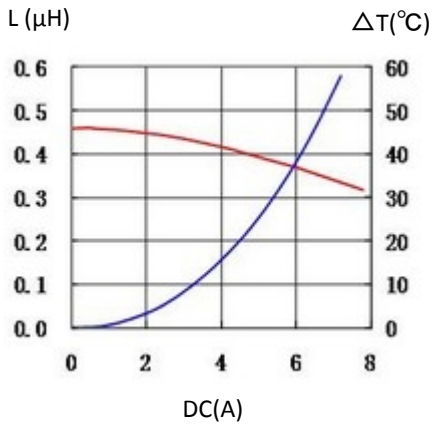
252012CDMCD/DS



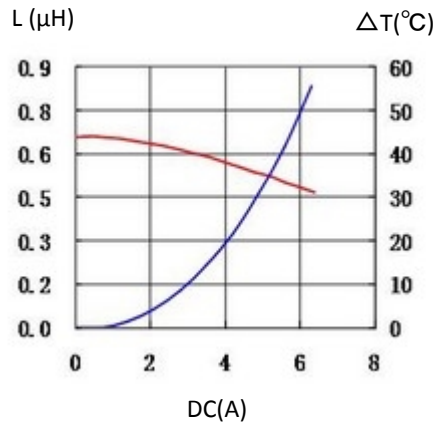
Saturation Current & Temperature Rise Graph

— L (20°C) — ΔT

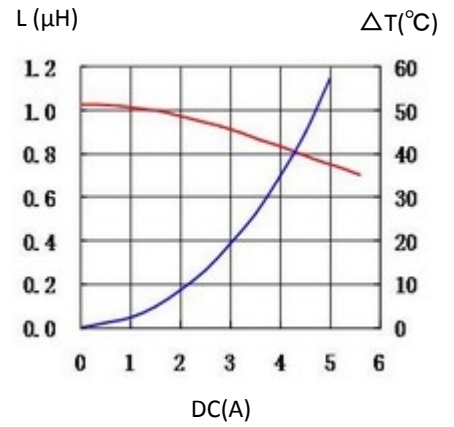
1. 252012CDMCDDS-R47MC



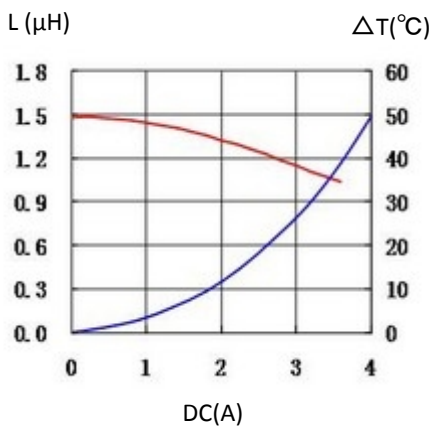
2. 252012CDMCDDS-R68MC



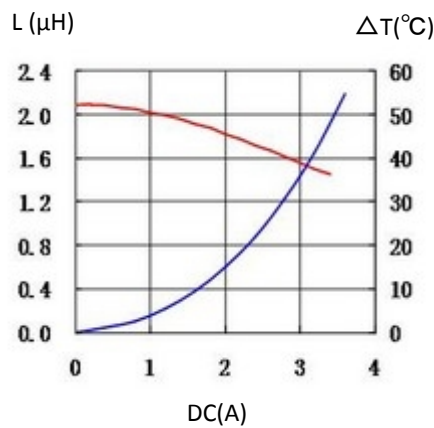
3. 252012CDMCDDS-1R0MC



4. 252012CDMCDDS-1R5MC



5. 252012CDMCDDS-2R2MC



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