

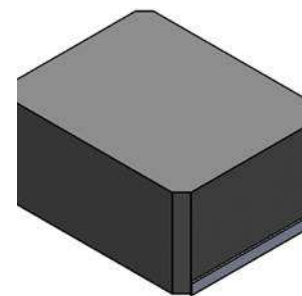
SMD Power Inductor

252010CDMCD/DS



Description

- Metal compound molding type construction
- Magnetically shielded
- Low audible core noise
- Suitable for large current.
- LxWxH:2.7x2.2x1.0mm Max.
- Product weight: 0.31mg (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

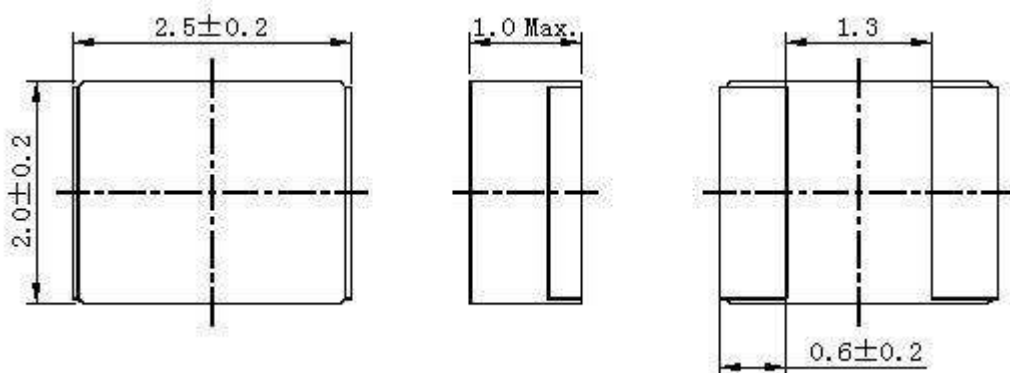
Packaging

- 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]

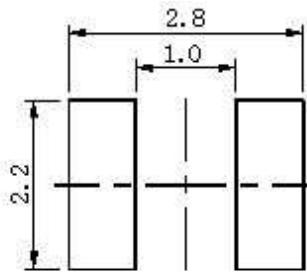


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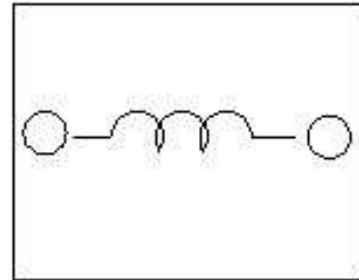
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Recommended Land pattern - [mm]



Wire Connection



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Electrical Characteristics

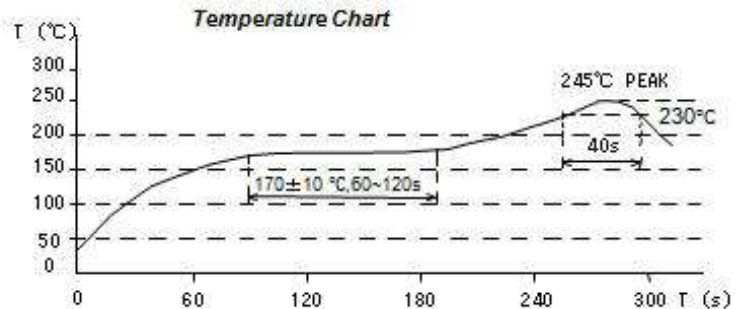
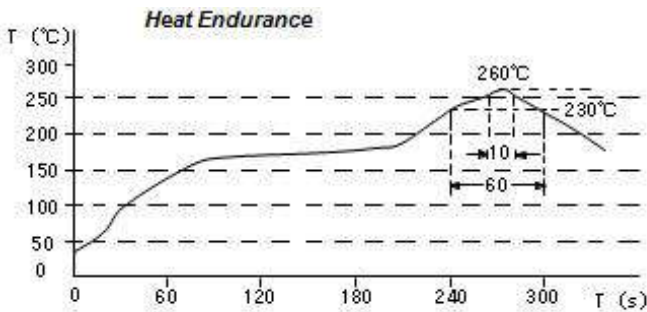
| Part Number | Inductance [Within] (μ H) ※1 | D.C.R. at 20°C (A) Max. (Typ.) (m Ω) | Saturation Current (A) Max. (Typ.) ※2 | Temperature Rise Current (A) (Typ.) ※3 |
|---------------------|-----------------------------------|--|---------------------------------------|--|
| 252010CDMCDDS-R47MC | 0.47 \pm 20% | 21.00 (17.00) | 5.20 (6.10) | (6.00) |
| 252010CDMCDDS-R68MC | 0.68 \pm 20% | 37.00 (31.00) | 3.70 (4.40) | (4.20) |
| 252010CDMCDDS-1R0MC | 1.00 \pm 20% | 48.00 (40.00) | 3.40 (4.00) | (4.00) |
| 252010CDMCDDS-1R5MC | 1.50 \pm 20% | 72.00 (60.00) | 2.50 (2.90) | (3.00) |
| 252010CDMCDDS-2R2MC | 2.20 \pm 20% | 97.00 (85.00) | 2.20 (2.60) | (2.50) |

※1 Measuring frequency Inductance at 1MHz,0.1V

※2 Saturation current: This indicates the actual 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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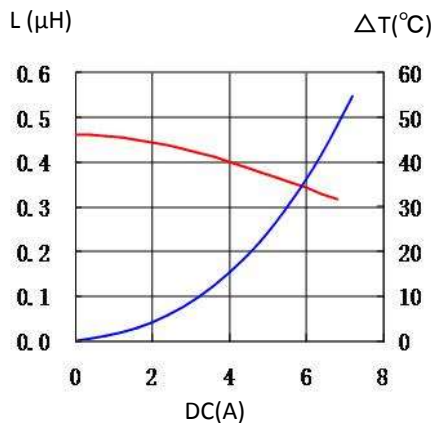
252010CDMCD/DS



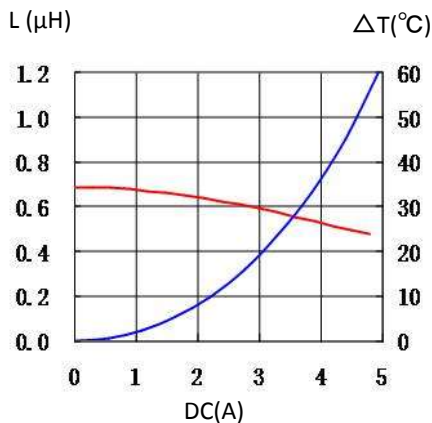
Saturation Current & Temperature Rise Graph

— L (20°C) — ΔT

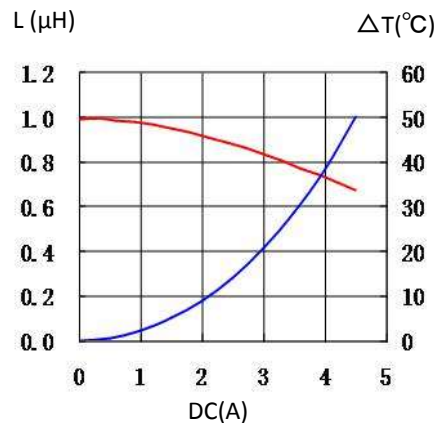
1. 252010CDMCDDS-R47MC



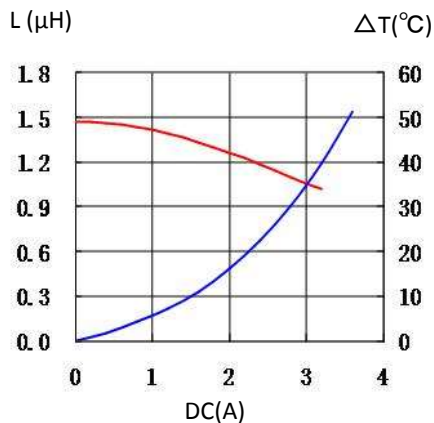
2. 252010CDMCDDS-R68MC



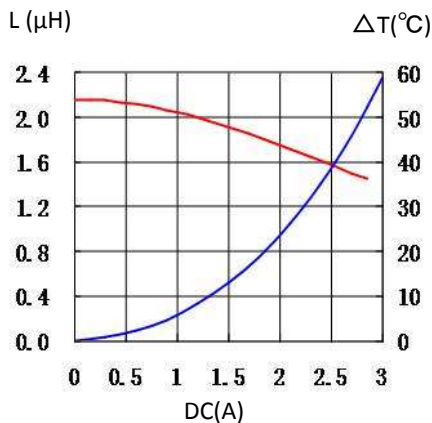
3. 252010CDMCDDS-1R0MC



4. 252010CDMCDDS-1R5MC



5. 252010CDMCDDS-2R2MC



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