

# SMD Power Inductor

## 0410CDMCC/DS



### Description

- Metal compound molding type construction
- Magnetically shielded
- Low audible core noise
- Suitable for large current
- LxWxH:4.75x4.45x1.0mm Max.
- Product weight: 0.098g (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

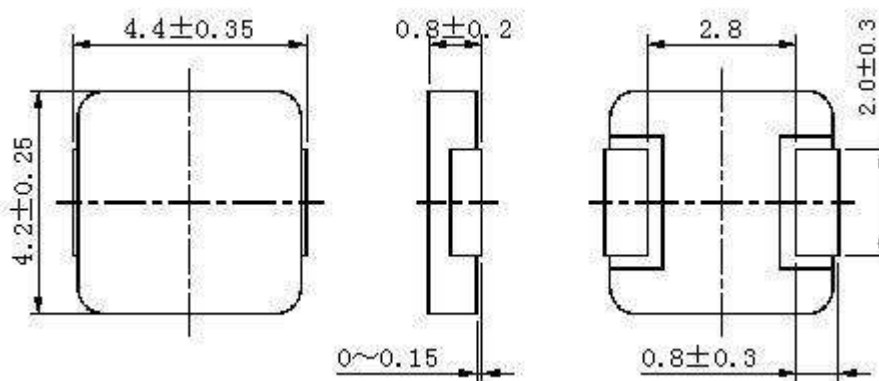
### Packaging

- 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]



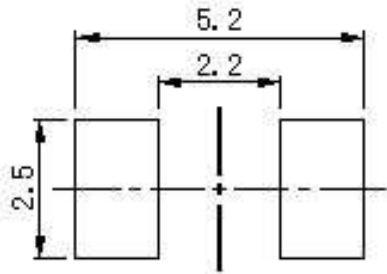
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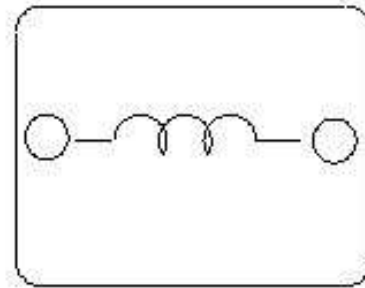
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### Recommended Land pattern - [mm]



### Wire Connection



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### Electrical Characteristics

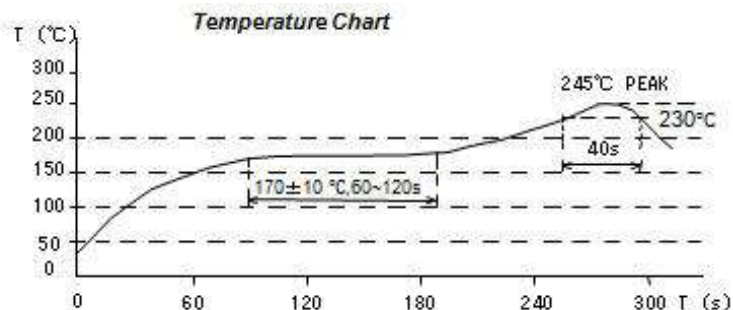
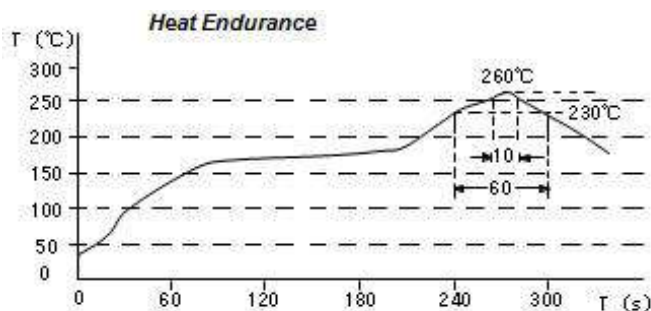
| Part Number       | Inductance [Within] ( $\mu$ H) ※1 | D.C.R. at 20°C max(typ) (m $\Omega$ ) | Saturation Current at 20°C(A) ※2 | Temperature Rise Current (A) ※3 |
|-------------------|-----------------------------------|---------------------------------------|----------------------------------|---------------------------------|
| 0410CDMCCDS-R10MC | 0.10 $\pm$ 20%                    | 5.80 (4.80)                           | 14.40                            | 14.00                           |
| 0410CDMCCDS-R15MC | 0.15 $\pm$ 20%                    | 6.30 (5.20)                           | 13.10                            | 13.00                           |
| 0410CDMCCDS-R22MC | 0.22 $\pm$ 20%                    | 11.70 (9.70)                          | 9.20                             | 9.00                            |
| 0410CDMCCDS-R33MC | 0.33 $\pm$ 20%                    | 23.00 (19.20)                         | 8.10                             | 6.00                            |
| 0410CDMCCDS-R47MC | 0.47 $\pm$ 20%                    | 30.50 (25.40)                         | 6.40                             | 5.00                            |
| 0410CDMCCDS-R56MC | 0.56 $\pm$ 20%                    | 34.50 (28.80)                         | 6.20                             | 4.50                            |
| 0410CDMCCDS-R68MC | 0.68 $\pm$ 20%                    | 38.90 (32.40)                         | 5.10                             | 4.00                            |
| 0410CDMCCDS-1R0MC | 1.00 $\pm$ 20%                    | 56.00 (49.00)                         | 4.10                             | 3.70                            |
| 0410CDMCCDS-1R2MC | 1.20 $\pm$ 20%                    | 66.00 (57.00)                         | 3.80                             | 3.50                            |
| 0410CDMCCDS-1R5MC | 1.50 $\pm$ 20%                    | 82.00 (72.00)                         | 3.40                             | 3.20                            |
| 0410CDMCCDS-2R2MC | 2.20 $\pm$ 20%                    | 107 (93.00)                           | 3.10                             | 2.90                            |
| 0410CDMCCDS-3R3MC | 3.30 $\pm$ 20%                    | 203 (177)                             | 2.60                             | 1.80                            |
| 0410CDMCCDS-4R7MC | 4.70 $\pm$ 20%                    | 243 (211)                             | 1.90                             | 1.75                            |
| 0410CDMCCDS-6R8MC | 6.80 $\pm$ 20%                    | 257 (224)                             | 1.70                             | 1.70                            |
| 0410CDMCCDS-100MC | 10.00 $\pm$ 20%                   | 318 (277)                             | 1.65                             | 1.60                            |

※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  $\mu$  m, four-layer PWB t=1.6mm)

### Solder Reflow Condition



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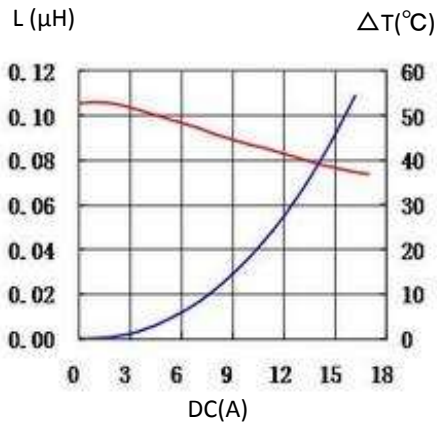
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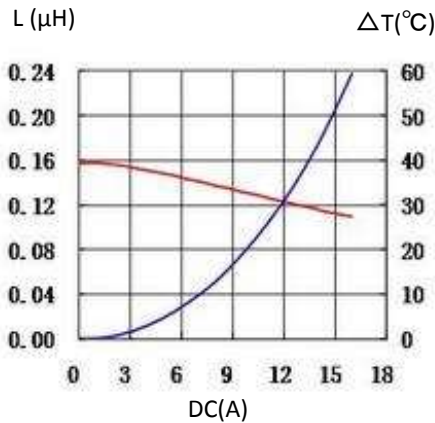
### Saturation Current & Temperature Rise Graph

— L (20°C) —  $\Delta T$

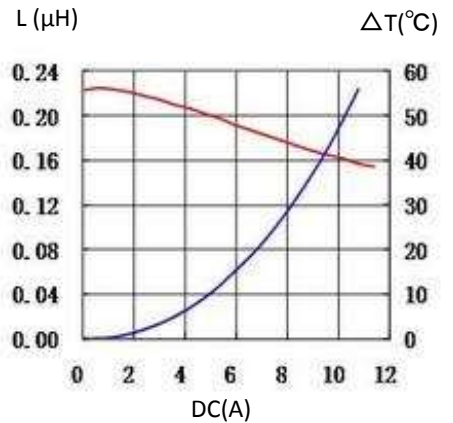
1. 0410CDMCCDS-R10MC



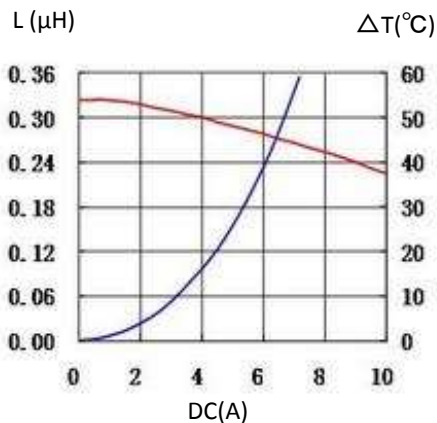
2. 0410CDMCCDS-R15MC



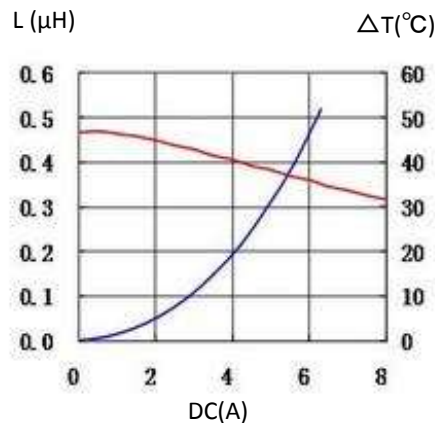
3. 0410CDMCCDS-R22MC



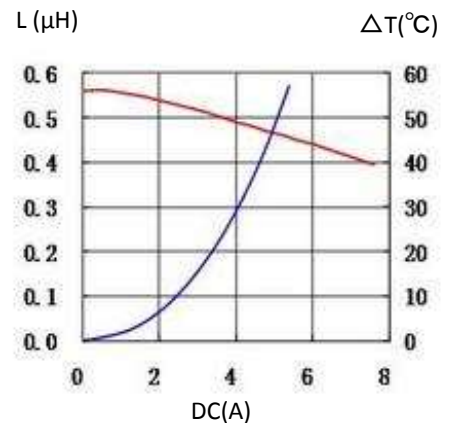
4. 0410CDMCCDS-R33MC



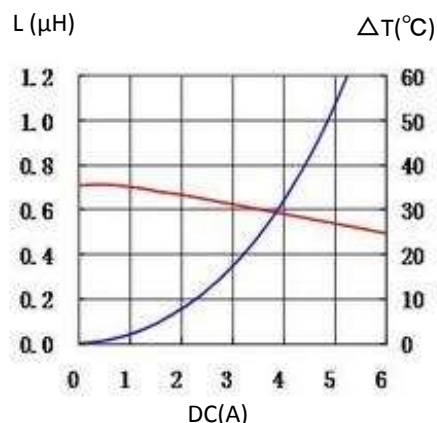
5. 0410CDMCCDS-R47MC



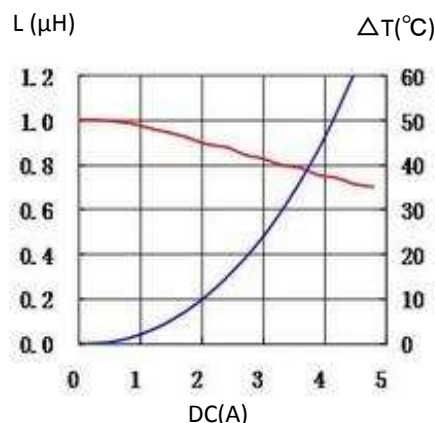
6. 0410CDMCCDS-R56MC



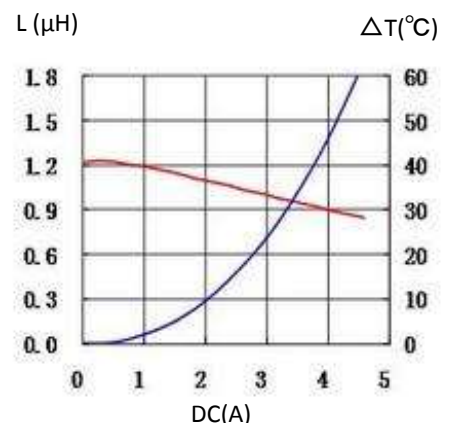
7. 0410CDMCCDS-R68MC



8. 0410CDMCCDS-1R0MC



9. 0410CDMCCDS-1R2MC



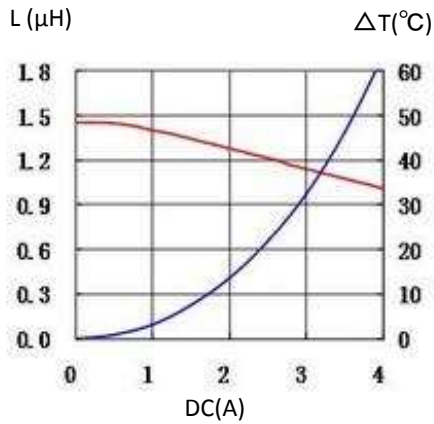
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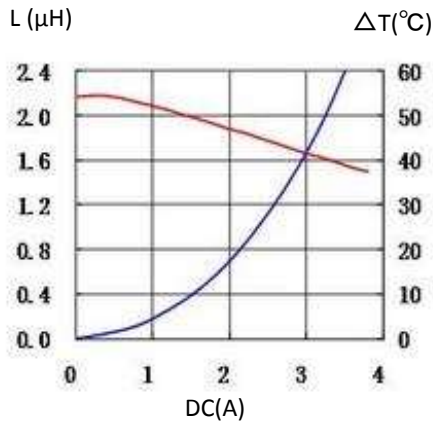
## 0410CDMCC/DS



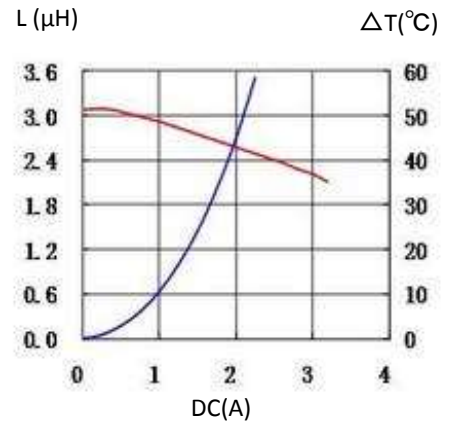
10. 0410CDMCCDS-1R5MC



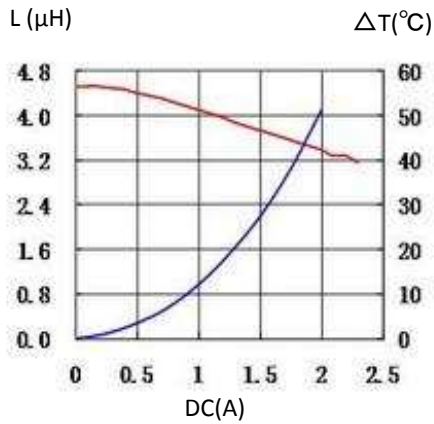
11. 0410CDMCCDS-2R2MC



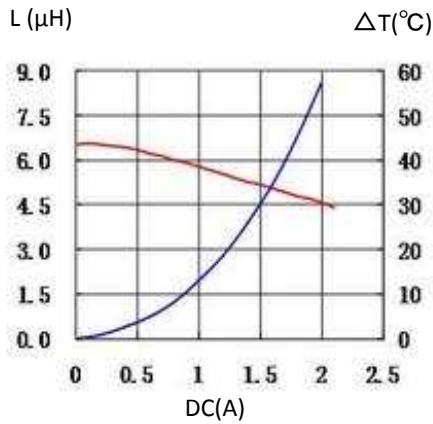
12. 0410CDMCCDS-3R3MC



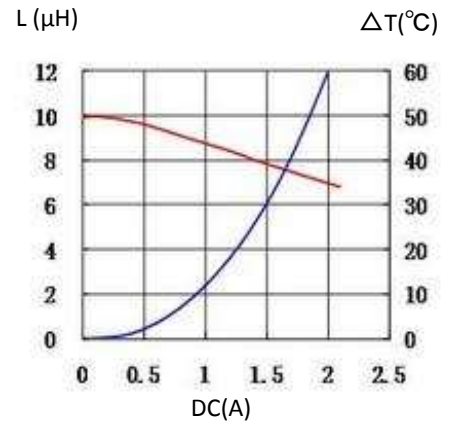
13. 0410CDMCCDS-4R7MC



14. 0410CDMCCDS-6R8MC



15. 0410CDMCCDS-100MC



For sales office information, please [click here](#) to visit our website.