



**THE DATASHEET OF
0518CDMCCDS-4R7MC**



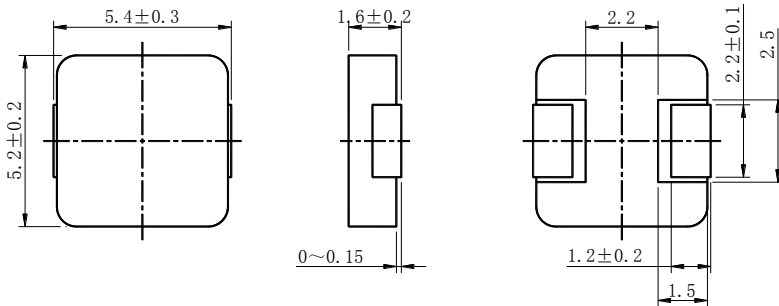
SMD Power Inductor 0518CDMCC/DS



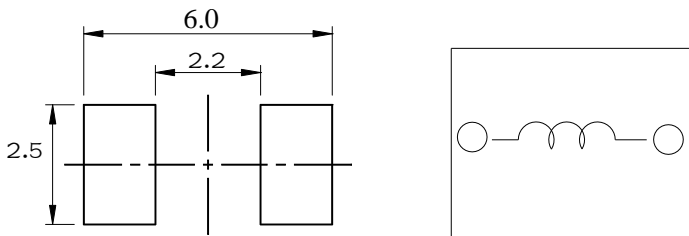
Halogen
Free



Dimension - [mm]



Land pattern and Schematics - [mm]



Description

- Metal compound molding type construction.
- Magnetically shielded.
- Low audible core noise.
- Suitable for large current.
- L × W × H: 5.7 × 5.4 × 1.8 mm Max.
- Product weight: 0.26g (Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Halogen Free available.

Environmental Data

- Operating temperature range: $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$ (including coil's self temperature rise)
- Storage temperature range: $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$
- Solder reflow temperature: 260°C peak.

Packaging

- Carrier tape and reel packaging.
- 2000pcs/Reel.

Applications

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



Electrical Characteristics

| No. | 品名 | 表示 | インダクタンス (μ H) [以内] ※1 | D. C. R (m Ω) (at 25°C) Max. (Typ.) | 直流重畳電流 (A)※2 Max. (Typ.) (at 25°C) | 温度上昇電流 (A)※3 Typ. |
|-----|-------------------|-----|-------------------------------------|--|---|-------------------------|
| 01 | 0518CDMCCDS-R10MC | R10 | 0.10 \pm 20% | 3.1(2.6) | 25.0(29.5) | 20.0 |
| 02 | 0518CDMCCDS-R12MC | R12 | 0.12 \pm 20% | 2.6(2.2) | 24.5(29.0) | 21.0 |
| 03 | 0518CDMCCDS-R15MC | R15 | 0.15 \pm 20% | 3.6(3.0) | 24.0(28.5) | 19.0 |
| 04 | 0518CDMCCDS-R22MC | R22 | 0.22 \pm 20% | 4.8(4.0) | 17.0(20.0) | 16.0 |
| 05 | 0518CDMCCDS-R33MC | R33 | 0.33 \pm 20% | 6.5(5.5) | 16.0(19.0) | 14.5 |
| 06 | 0518CDMCCDS-R47MC | R47 | 0.47 \pm 20% | 9.0(7.7) | 12.8(15.0) | 10.5 |
| 07 | 0518CDMCCDS-R56MC | R56 | 0.56 \pm 20% | 10.0(8.0) | 12.5(14.7) | 10.0 |
| 08 | 0518CDMCCDS-R68MC | R68 | 0.68 \pm 20% | 12.1(10.5) | 11.5(13.5) | 9.5 |
| 09 | 0518CDMCCDS-1R0MC | 1R0 | 1.0 \pm 20% | 17(15) | 11.1(13.1) | 7.5 |
| 10 | 0518CDMCCDS-1R5MC | 1R5 | 1.5 \pm 20% | 26(21) | 9.0(10.6) | 6.6 |
| 11 | 0518CDMCCDS-2R2MC | 2R2 | 2.2 \pm 20% | 35(30) | 6.0(7.1) | 5.2 |
| 12 | 0518CDMCCDS-3R3MC | 3R3 | 3.3 \pm 20% | 58(52) | 5.4(6.3) | 4.2 |
| 13 | 0518CDMCCDS-4R7MC | 4R7 | 4.7 \pm 20% | 85(78) | 4.4(5.1) | 3.2 |
| 14 | 0518CDMCCDS-5R6MC | 5R6 | 5.6 \pm 20% | 95(86) | 4.1(4.8) | 2.8 |
| 15 | 0518CDMCCDS-6R8MC | 6R8 | 6.8 \pm 20% | 120(107) | 3.6(4.3) | 2.4 |
| 16 | 0518CDMCCDS-100MC | 100 | 10 \pm 20% | 155(140) | 3.0(3.5) | 2.3 |
| 17 | 0518CDMCCDS-150MC | 150 | 15 \pm 20% | 260(240) | 1.7(2.0) | 1.8 |

※1 Measuring frequency Inductance at 100kHz ,1.0V

※2 Saturation current: The value of DC current when the inductance is over 70% of its initial value. (at 25°C)

※3 Temperature rise current: The actual value of DC current when temperature of coil rise is

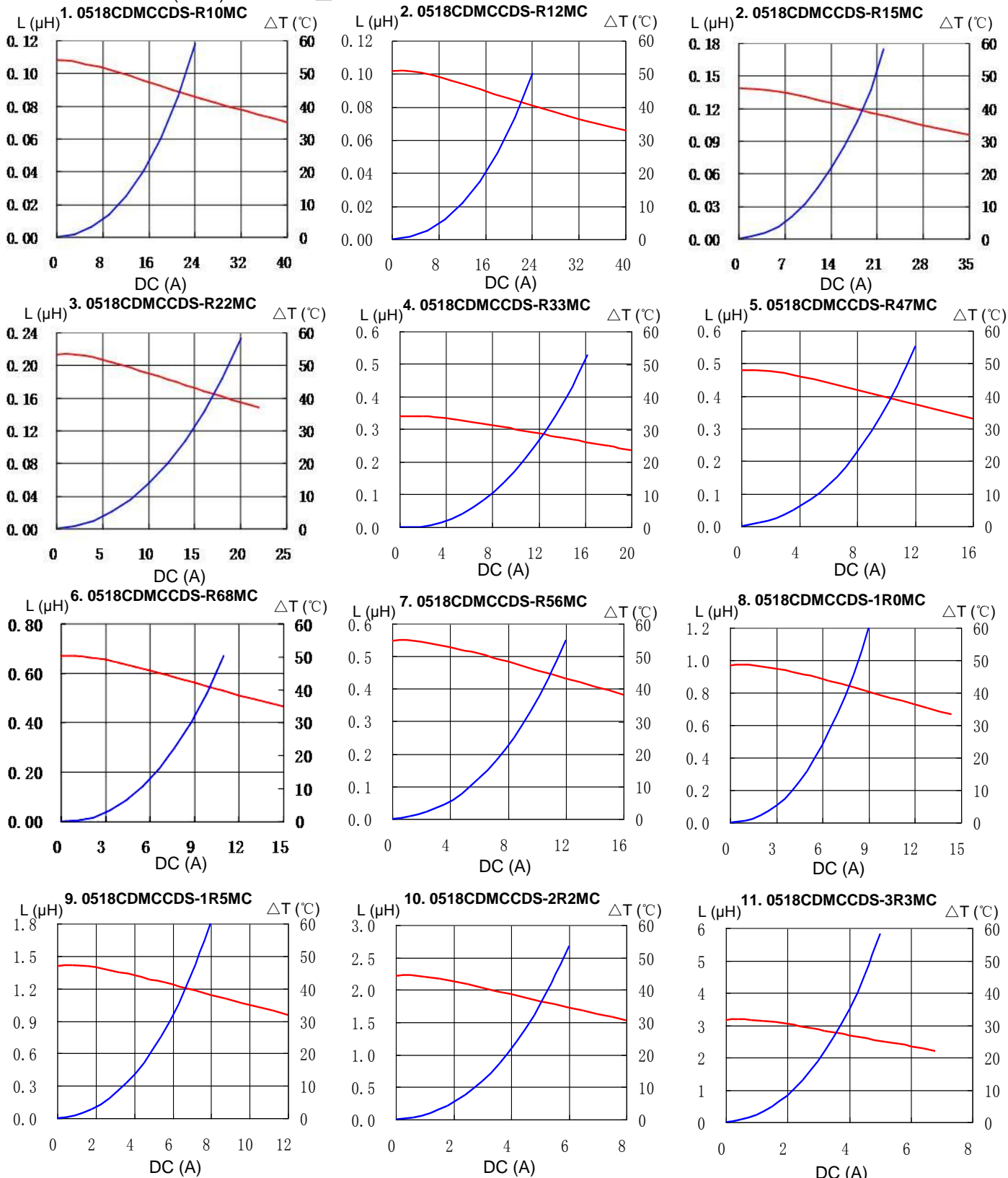
$\Delta T=40^{\circ}\text{C}$ ($T_a=25^{\circ}\text{C}$). Board conditions: FR4, Copper=70 μm , four-layer PWB, t=1.6mm.

SMD Power Inductor 0518CDMCC/DS



Saturation Current & Temperature Rise Graph

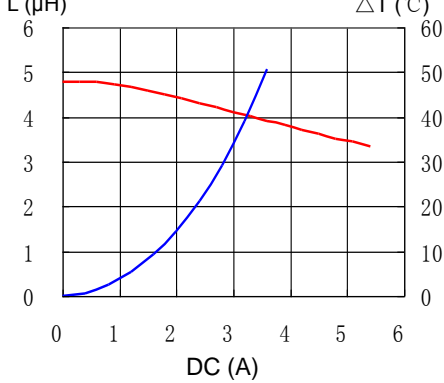
— L (20°C) — ΔT



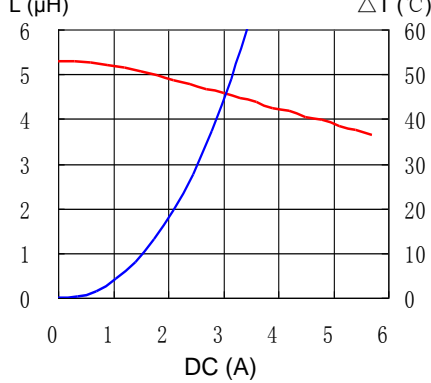
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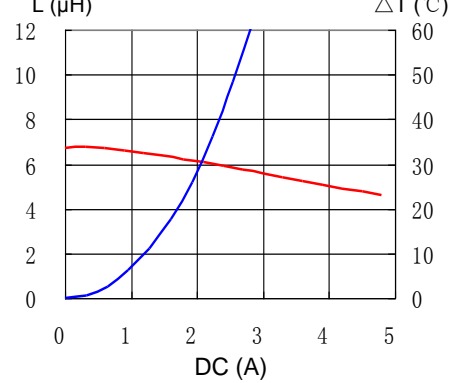
12. 0518CDMCCDS-4R7MC



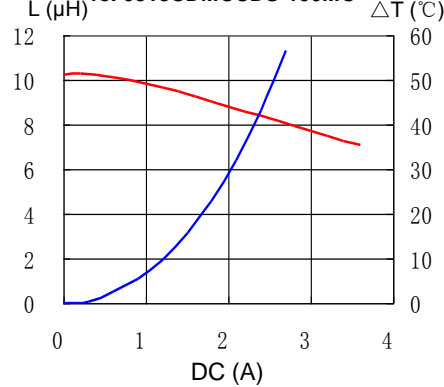
13. 0518CDMCCDS-5R6MC



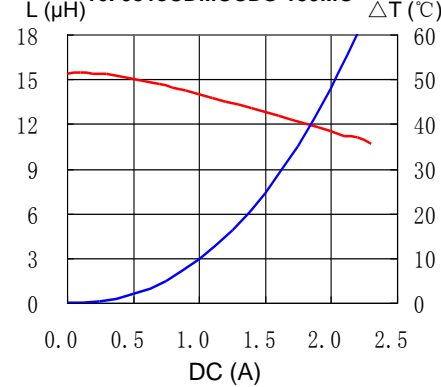
14. 0518CDMCCDS-6R8MC



15. 0518CDMCCDS-100MC

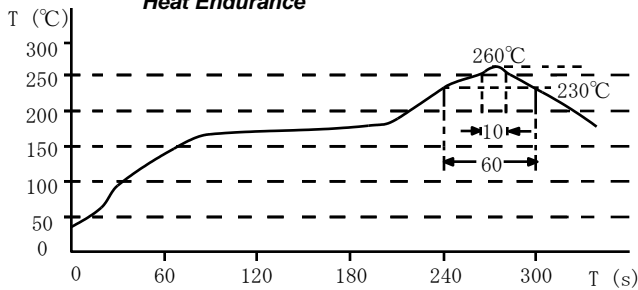


16. 0518CDMCCDS-150MC

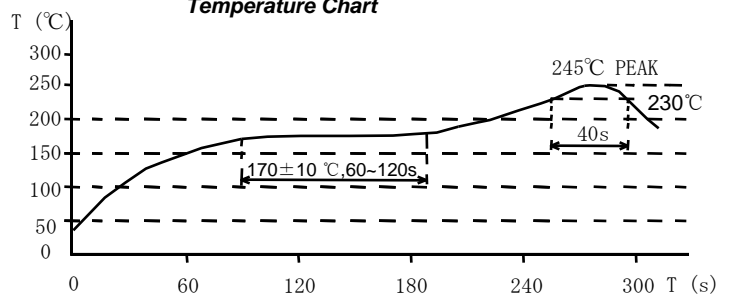


Solder Reflow Condition

Heat Endurance



Temperature Chart



Please refer to the sales offices on our website - <http://www.sumida.com>

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