

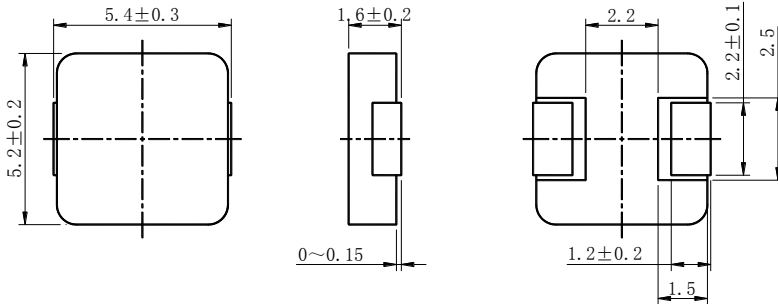
# SMD Power Inductor 0518CDMCC/DS



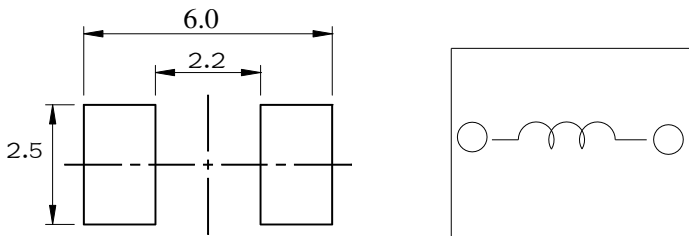
Halogen Free



## 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°C ~ +125°C (including coil's self temperature rise)
- Storage temperature range: -55°C ~ +125°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<br>( $\mu$ H)<br>[以内]<br>※1 | D. C. R<br>(m $\Omega$ )<br>(at 25°C)<br>Max. (Typ.) | 直流重畳電流<br>(A)※2<br>Max. (Typ.)<br>(at 25°C) | 温度上昇電流<br>(A)※3<br>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

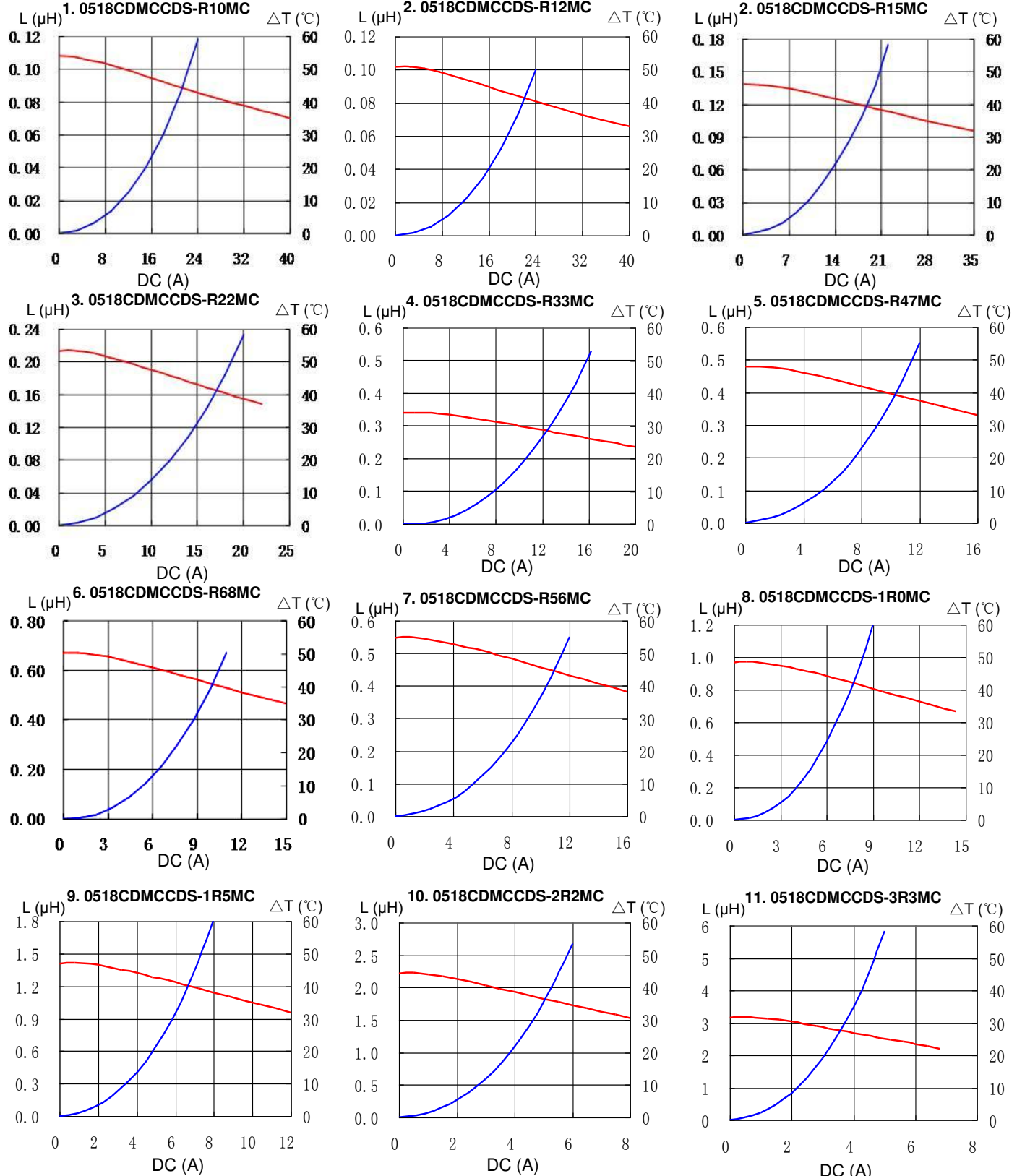
$\Delta T=40^{\circ}\text{C}$  ( $T_a=25^{\circ}\text{C}$ ). Board conditions: FR4, Copper=70 $\mu\text{m}$ , four-layer PWB,  $t=1.6\text{mm}$ .

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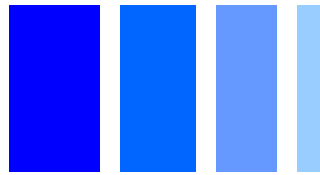


## Saturation Current & Temperature Rise Graph

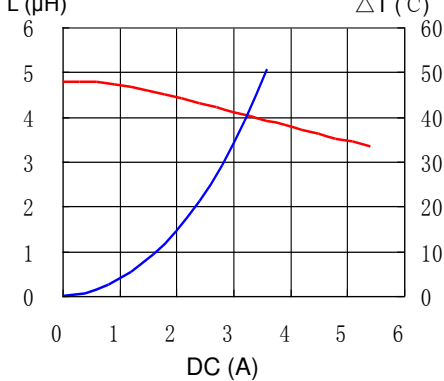
— L (20°C) —  $\Delta T$



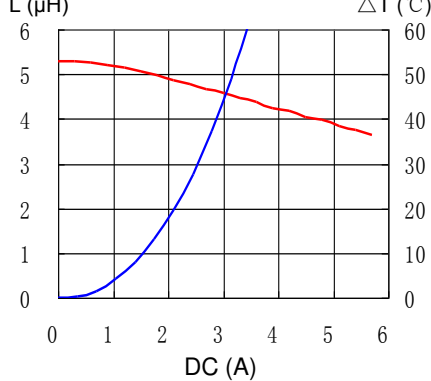
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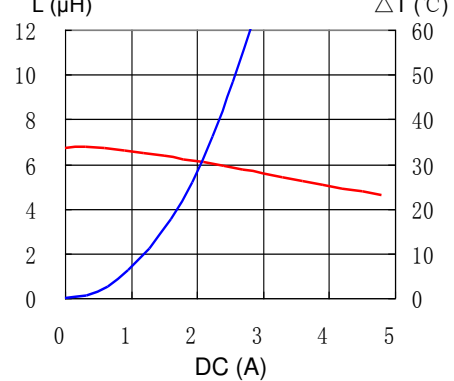
12. 0518CDMCCDS-4R7MC



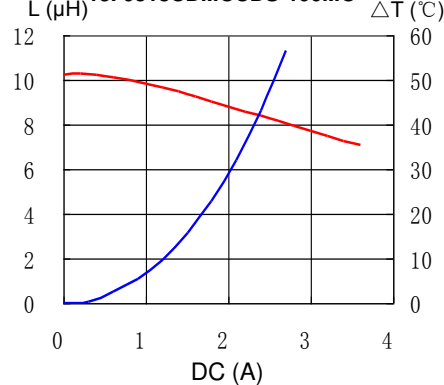
13. 0518CDMCCDS-5R6MC



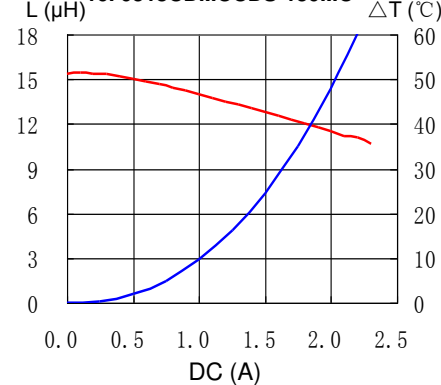
14. 0518CDMCCDS-6R8MC



15. 0518CDMCCDS-100MC

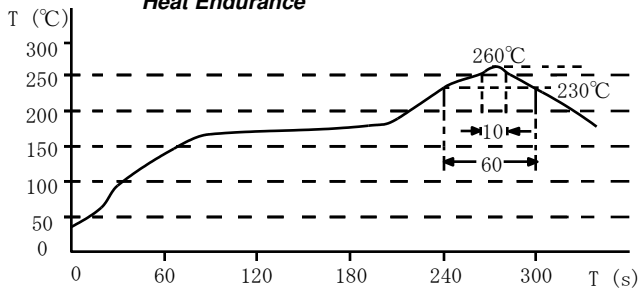


16. 0518CDMCCDS-150MC

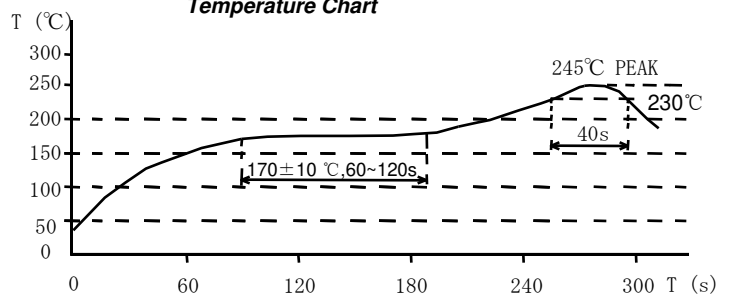


## Solder Reflow Condition

Heat Endurance



Temperature Chart



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