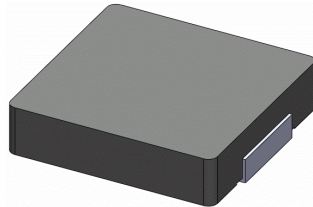


# SMD Power Inductor

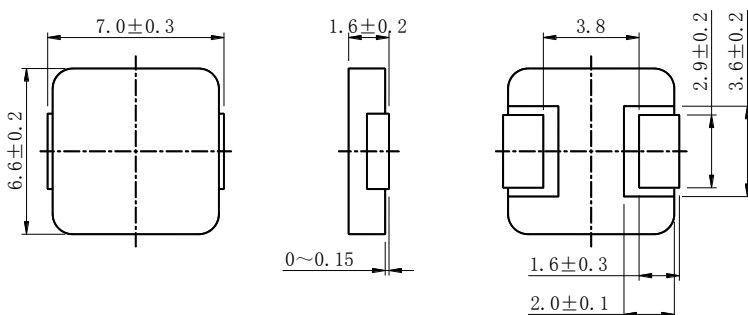
## 0618CDMCC/DS



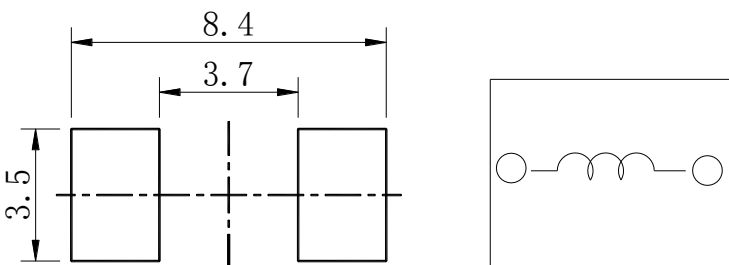
Halogen  
Free



### 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:  $7.3 \times 6.8 \times 1.8$ mm Max.
- Product weight: 0.45g (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:  $260^{\circ}\text{C}$  peak.

### Packaging

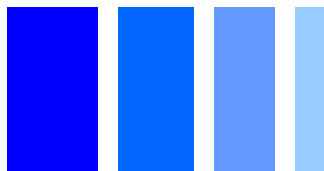
- Carrier tape and reel packaging.
- 1500pcs/Reel.

### Applications

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

# SMD Power Inductor

## 0618CDMCC/DS



### Electrical Characteristics

| Part No.          | Stamp | Inductance<br>( $\mu$ H)<br>[Within]<br>※1 | D.C.R<br>(m $\Omega$ )<br>at 25°C<br>Max.(Typ.) | Saturation<br>Current<br>(A)※2<br>Max.(Typ.)<br>(at 25°C) | Temperature<br>rise current<br>(A)※3<br>Typ. |
|-------------------|-------|--------------------------------------------|-------------------------------------------------|-----------------------------------------------------------|----------------------------------------------|
| 0618CDMCCDS-R10MC | R10   | 0.10 $\pm$ 20%                             | 2.4(2.05)                                       | 34.0(40.0)                                                | 25.0                                         |
| 0618CDMCCDS-R12MC | R12   | 0.12 $\pm$ 20%                             | 2.4(2.05)                                       | 30.0(36.0)                                                | 25.0                                         |
| 0618CDMCCDS-R15MC | R15   | 0.15 $\pm$ 20%                             | 2.4(2.05)                                       | 27.0(32.0)                                                | 25.0                                         |
| 0618CDMCCDS-R22MC | R22   | 0.22 $\pm$ 20%                             | 3.6(3.1)                                        | 23.0(27.0)                                                | 18.0                                         |
| 0618CDMCCDS-R68MC | R68   | 0.68 $\pm$ 20%                             | 12.0(10.0)                                      | 14.4(17.0)                                                | 9.8                                          |
| 0618CDMCCDS-1R0MC | 1R0   | 1.0 $\pm$ 20%                              | 16.0(13.0)                                      | 12.1(14.3)                                                | 8.3                                          |
| 0618CDMCCDS-1R5MC | 1R5   | 1.5 $\pm$ 20%                              | 24.0(20.0)                                      | 10.3(12.0)                                                | 7.0                                          |
| 0618CDMCCDS-2R2MC | 2R2   | 2.2 $\pm$ 20%                              | 33.6(28.0)                                      | 9.2(10.8)                                                 | 6.0                                          |
| 0618CDMCCDS-3R3MC | 3R3   | 3.3 $\pm$ 20%                              | 50.0(43.0)                                      | 6.8(8.0)                                                  | 4.7                                          |
| 0618CDMCCDS-4R7MC | 4R7   | 4.7 $\pm$ 20%                              | 62.0(56.0)                                      | 5.3(6.3)                                                  | 4.0                                          |
| 0618CDMCCDS-6R8MC | 6R8   | 6.8 $\pm$ 20%                              | 110.0(101.0)                                    | 4.3(5.0)                                                  | 3.0                                          |
| 0618CDMCCDS-8R2MC | 8R2   | 8.2 $\pm$ 20%                              | 142.0(123.0)                                    | 4.0(4.7)                                                  | 2.6                                          |
| 0618CDMCCDS-100MC | 100   | 10.0 $\pm$ 20%                             | 165.0(150.0)                                    | 3.4(4.0)                                                  | 2.3                                          |

※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

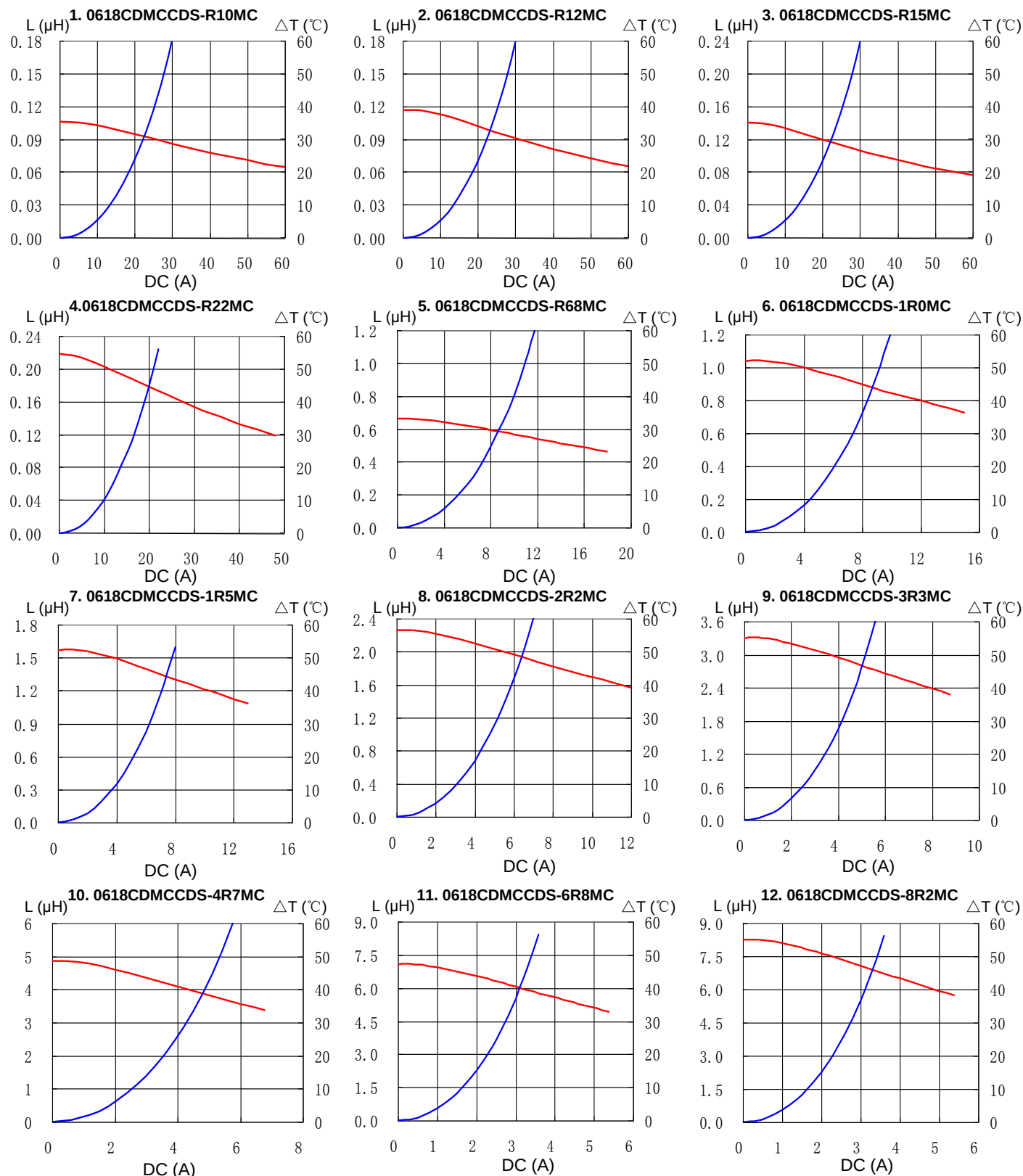
$\Delta T=40^{\circ}\text{C}$  ( $T_a=25^{\circ}\text{C}$ ) Board conditions: FR4, Copper=70 $\mu\text{m}$ , four-layer PWB, t=1.6mm.

# SMD Power Inductor 0618CDMCC/DS



## Saturation Current & Temperature Rise Graph

— L (20°C) —  $\Delta T$

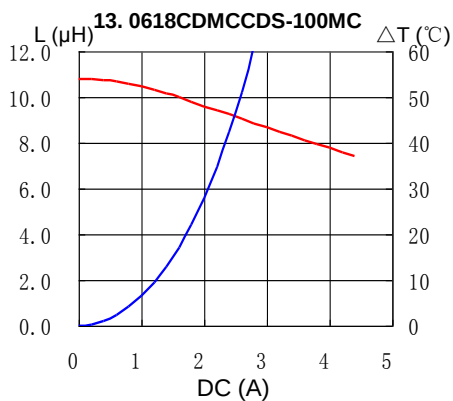


# SMD Power Inductor 0618CDMCC/DS



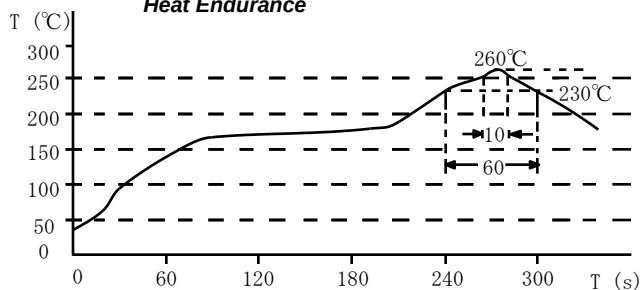
## Saturation Current & Temperature Rise Graph

— L (20°C) —  $\Delta T$

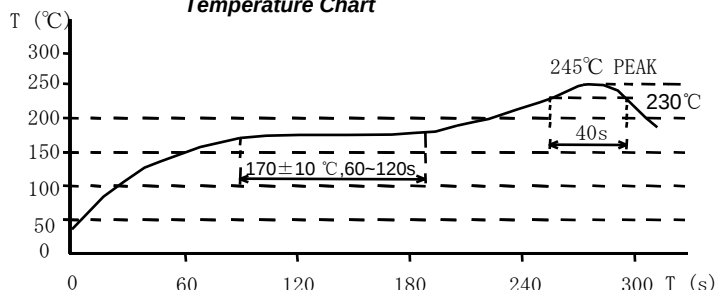


## Solder Reflow Condition

Heat Endurance



Temperature Chart



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