

# SMD Power Inductor 0420CDMCC/DS



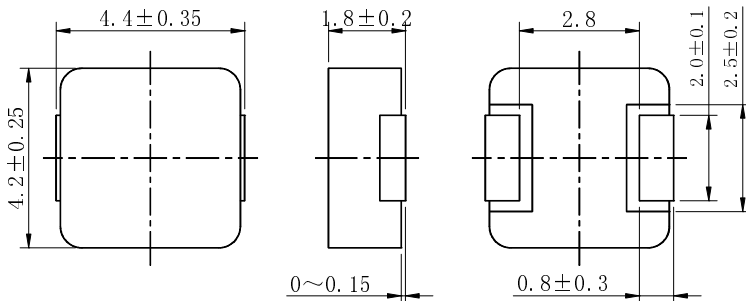
Halogen  
Free



## Description

- Metal compound molding type construction.
- Magnetically shielded.
- Low audible core noise.
- Suitable for large current.
- L × W × H: 4.75 × 4.45 × 2.0mm Max.
- Product weight: 0.18g (Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Halogen Free available.

## Dimension - [mm]



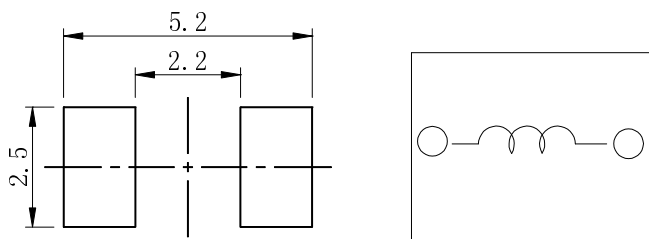
## Environmental Data

- 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.
- 3000pcs/Reel.

## Land pattern and Schematics - [mm]



## 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.

# SMD Power Inductor

## 0420CDMCC/DS



### Electrical Characteristics

| Part No.          | Stamp | Inductance<br>[Within]<br>( $\mu$ H)<br>※1 | D.C.R<br>(m $\Omega$ )<br>Max.(Typ.)<br>at 25°C | Saturation<br>Current<br>(A)<br>Max.(Typ.)<br>(at 25°C)<br>※2 | Temperature<br>rise current<br>(A)<br>(Typ.)<br>※3 |
|-------------------|-------|--|---|---|--|
| 0420CDMCCDS-R10MC | R10   | 0.10 $\pm$ 20%                             | 4.0(3.5)  | 19(22)  | 17.0   |
| 0420CDMCCDS-R22MC | R22   | 0.22 $\pm$ 20%                             | 6.6(6.0)  | 15(18)  | 12.0   |
| 0420CDMCCDS-R33MC | R33   | 0.33 $\pm$ 20%                             | 10.5(9.0)                                       | 10(12)  | 10.5   |
| 0420CDMCCDS-R47MC | R47   | 0.47 $\pm$ 20%                             | 14(12.5)  | 9.5(11)   | 9.0  |
| 0420CDMCCDS-R56MC | R56   | 0.56 $\pm$ 20%                             | 16(14)  | 10(12)  | 8.1  |
| 0420CDMCCDS-R68MC | R68   | 0.68 $\pm$ 20%                             | 18(16)  | 8.2(9.6)  | 8.0  |
| 0420CDMCCDS-1R0MC | 1R0   | 1.0 $\pm$ 20%                              | 27(24)  | 7.0(8.0)  | 6.5  |
| 0420CDMCCDS-1R2MC | 1R2   | 1.2 $\pm$ 20%                              | 27(24)  | 7.0(8.0)  | 6.5  |
| 0420CDMCCDS-1R5MC | 1R5   | 1.5 $\pm$ 20%                              | 46(38)  | 5.7(6.7)  | 4.9  |
| 0420CDMCCDS-2R2MC | 2R2   | 2.2 $\pm$ 20%                              | 58(52)  | 5.4(6.3)  | 4.3  |
| 0420CDMCCDS-3R3MC | 3R3   | 3.3 $\pm$ 20%                              | 87(74)  | 4.0(4.7)  | 3.5  |
| 0420CDMCCDS-4R7MC | 4R7   | 4.7 $\pm$ 20%                              | 105(92)   | 2.5(3.0)  | 2.7  |
| 0420CDMCCDS-6R8MC | 6R8   | 6.8 $\pm$ 20%                              | 175(160)  | 2.3(2.7)  | 2.1  |
| 0420CDMCCDS-100MC | 100   | 10 $\pm$ 20%                               | 282(256)  | 2.1(2.5)  | 1.5  |
| 0420CDMCCDS-150MC | 150   | 15 $\pm$ 20%                               | 352(320)  | 1.6(1.9)  | 1.4  |
| 0420CDMCCDS-220MC | 220   | 22 $\pm$ 20%                               | 363(330)  | 1.4(1.7)  | 1.2  |

※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

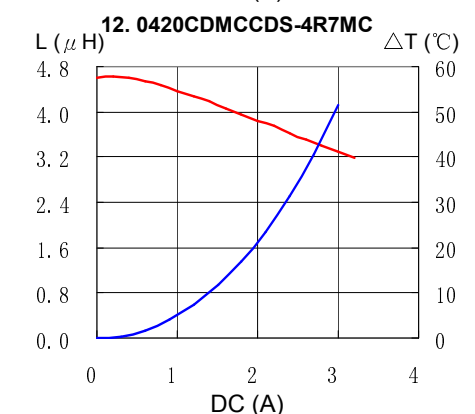
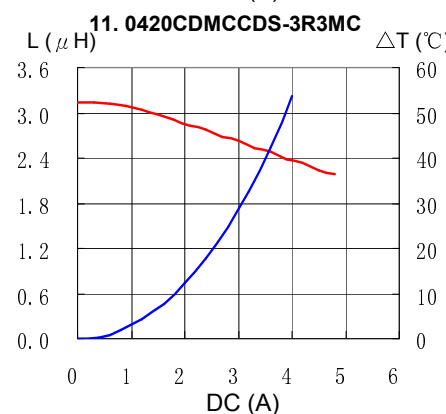
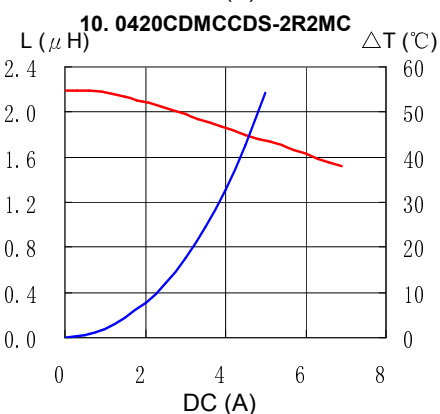
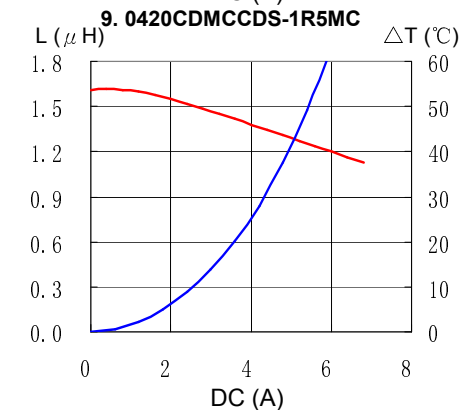
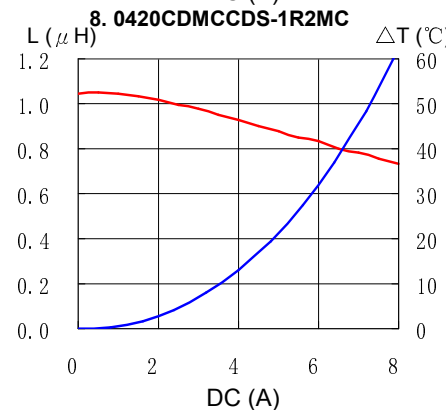
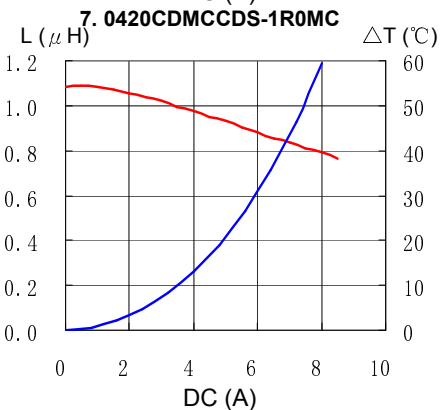
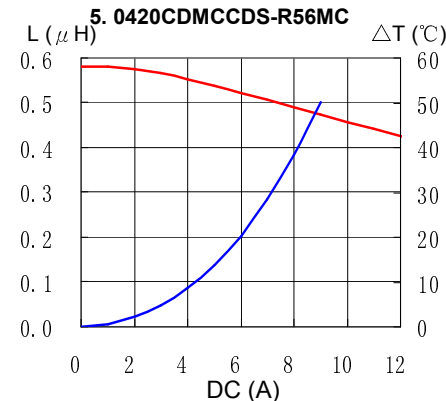
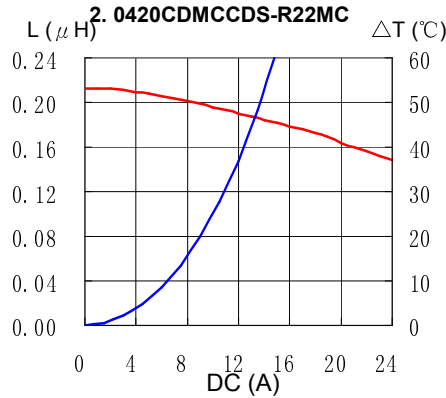
$\Delta$ T=40°C(Ta=25°C) Board conditions: FR4, Copper=70  $\mu$  m, four-layer PWB, t=1.6mm.

# SMD Power Inductor 0420CDMCC/DS



## Saturation Current & Temperature Rise Graph

— L (20°C) —  $\Delta T$



# SMD Power Inductor 0420CDMCC/DS



## Saturation Current & Temperature Rise Graph

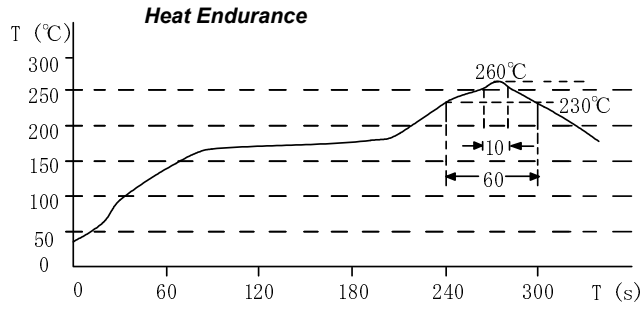
— L (20°C)    —  $\Delta T$



# SMD Power Inductor 0420CDMCC/DS



## Solder Reflow Condition



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**Hong Kong**  
Tel.+852-2880-6781  
FAX.+852-2565-9600  
[sales@hk.sumida.com](mailto:sales@hk.sumida.com)

**Saitama(Japan)**  
Tel.+81-48-691-7300  
FAX.+81-48-691-7340  
[sales@jp.sumida.com](mailto:sales@jp.sumida.com)

**Chicago**  
Tel.+1-847-545-6700  
FAX. +1-847-545-6720  
[sales@us.sumida.com](mailto:sales@us.sumida.com)

**Shanghai**  
Tel.+86-21-5836-3299  
FAX.+86-21-5836-3266  
[shanghai.sales@cn.sumida.com](mailto:shanghai.sales@cn.sumida.com)

**Seoul**  
Tel.+82-2-6237-0777  
FAX.+82-2-6237-0778  
[sales@kr.sumida.com](mailto:sales@kr.sumida.com)

**Oberzell**  
Tel.+49-8591-937-0  
FAX. +49-8591-937-103  
[contact@eu.sumida.com](mailto:contact@eu.sumida.com)

**Shenzhen**  
Tel.+86-755-8291-0228  
FAX.+86-755-8291-0338  
[shenzhen.sales@cn.sumida.com](mailto:shenzhen.sales@cn.sumida.com)

**Singapore**  
Tel.+65-6296-3388  
FAX.+65-6841-4426  
[sales@sg.sumida.com](mailto:sales@sg.sumida.com)

**Neumarkt**  
Tel.+49-9181-4509-110  
FAX. +49-9181-4509-310  
[infocomp@eu.sumida.com](mailto:infocomp@eu.sumida.com)

**Taipei**  
Tel.+886-2-8751-2737  
FAX.+886-2-8751-2738  
[sales@tw.sumida.com](mailto:sales@tw.sumida.com)

**San Jose**  
Tel.+1-408-321-9660  
FAX.+1-408-321-9308  
[sales@us.sumida.com](mailto:sales@us.sumida.com)