



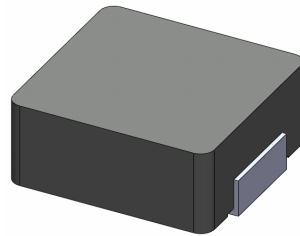
**THE DATASHEET OF  
0420CDMCCDS-R56MC**



# SMD Power Inductor 0420CDMCC/DS



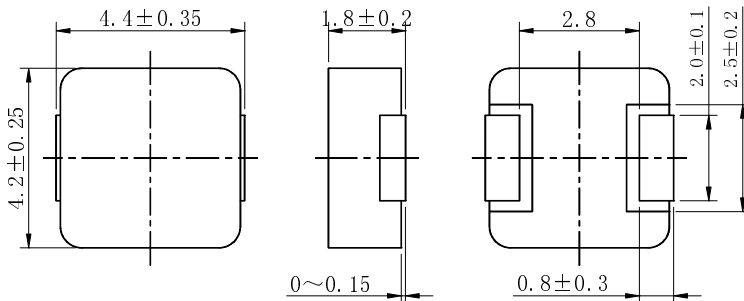
Halogen Free



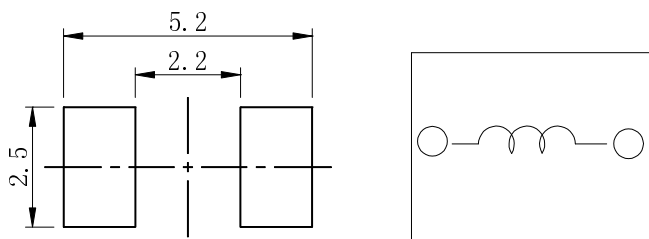
## Description

- 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]



## Land pattern and Schematics - [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.

## 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 [Within] ( $\mu$ H) ※1	D.C.R (m $\Omega$ ) Max.(Typ.) at 25°C	Saturation Current (A) Max.(Typ.) (at 25°C) ※2	Temperature rise current (A) (Typ.) ※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

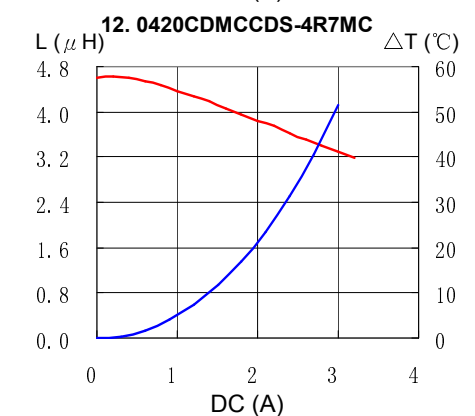
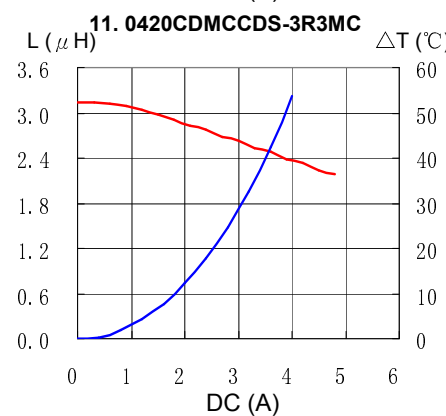
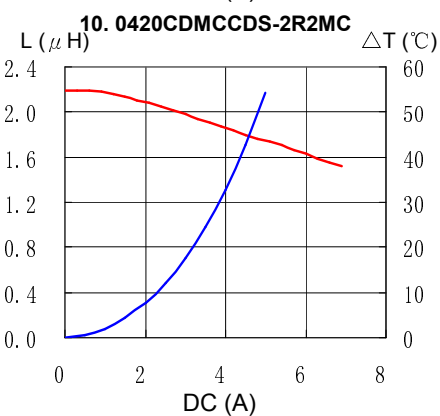
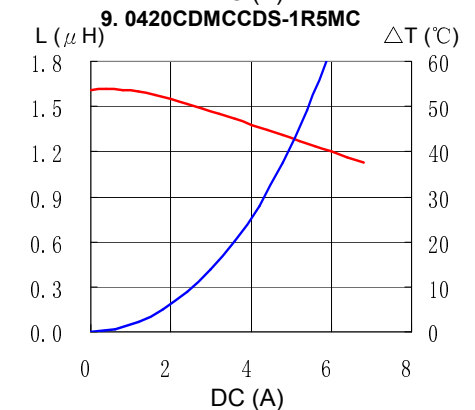
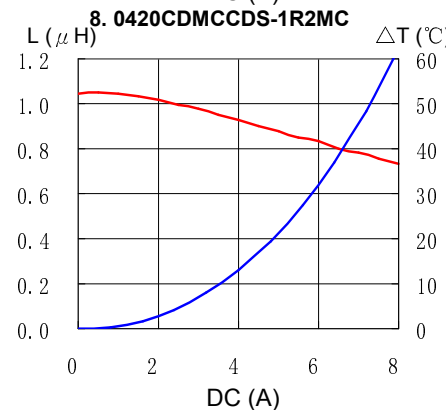
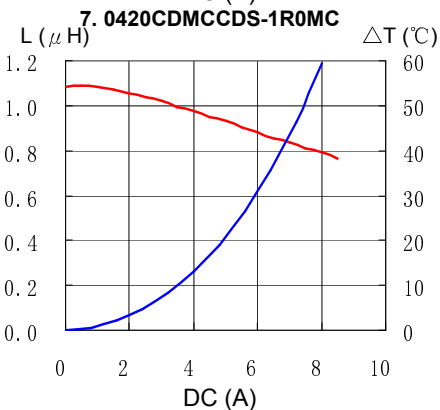
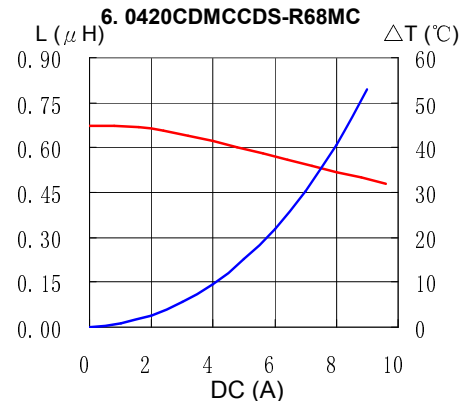
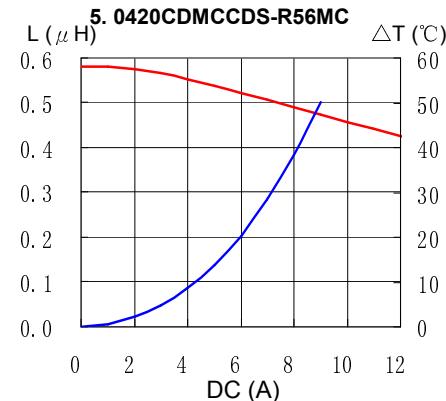
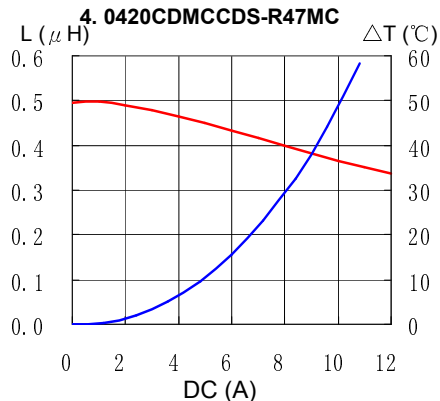
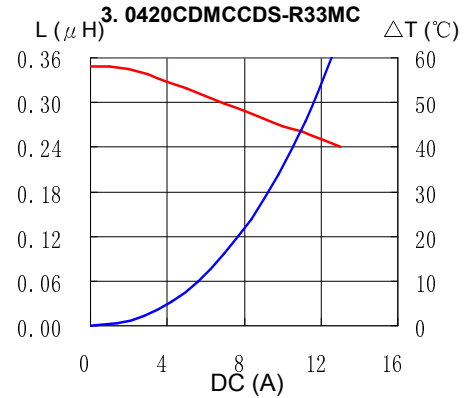
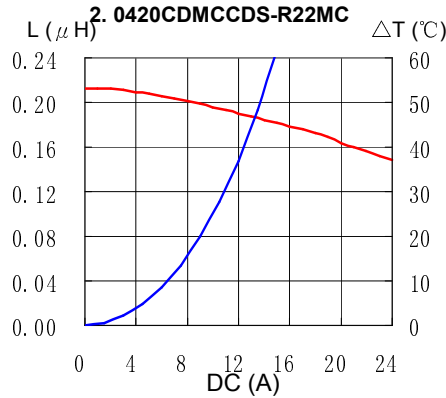
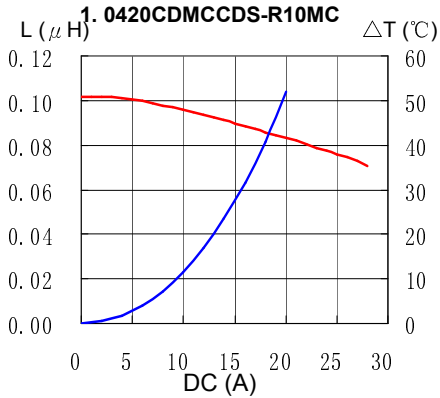
$\Delta$ T=40°C(Ta=25°C) Board conditions: FR4, Copper=70  $\mu$  m, four-layer PWB, t=1.6mm.

# SMD Power Inductor 0420CDMCC/DS



## Saturation Current & Temperature Rise Graph

— L (20°C) —  $\Delta T$

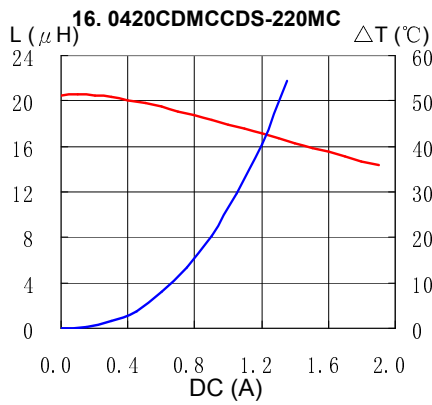
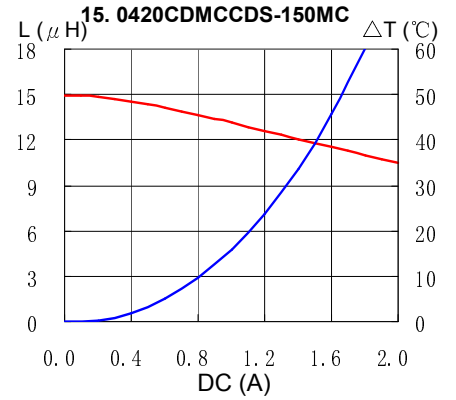
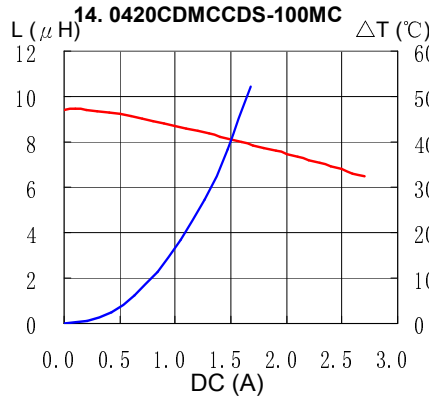
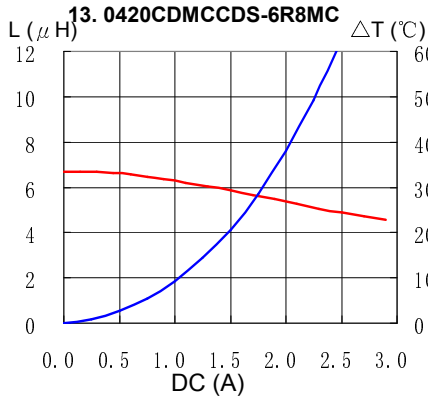


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## Saturation Current & Temperature Rise Graph

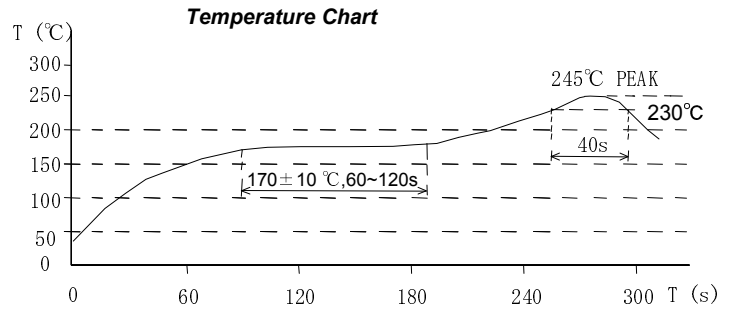
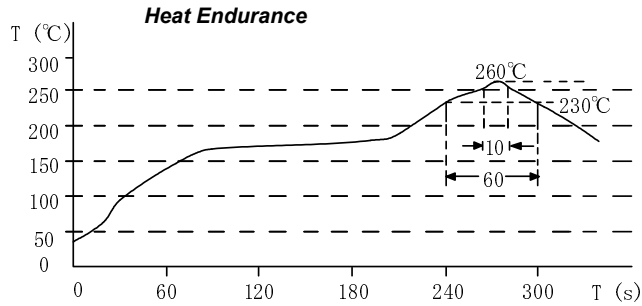
— L (20°C)    —  $\Delta T$



# SMD Power Inductor 0420CDMCC/DS



## Solder Reflow Condition



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