

# SMD Power Inductor

## 0315CDMCC/DS



Recommended Type



### Description

- Metal compound molding type construction
- Magnetically shielded
- Low audible core noise
- Suitable for large current
- LxWxH:3.7x3.4x1.5mm Max.
- Product weight: 0.079g (Ref.)
- Moisture Sensitivity Level: 1

### Environmental Data

- Operating temperature range: -55°C ~ +125°C (including coil's self temperature rise)
- Storage temperature range: -55°C ~ +125°C

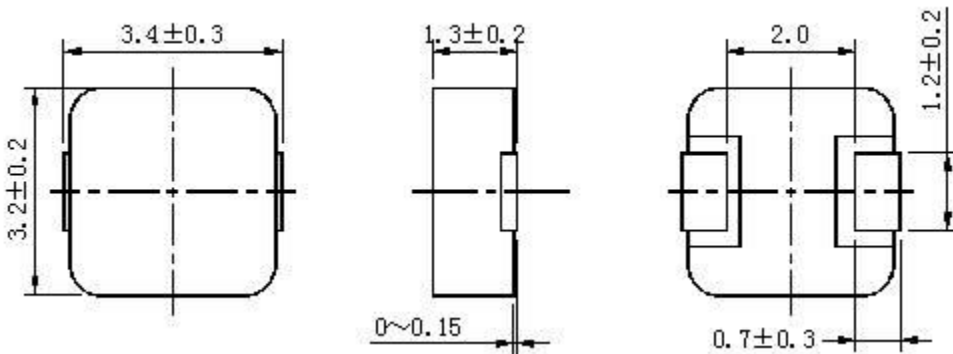
### Packaging

- Carrier tape and reel packaging
- 3000pcs per reel

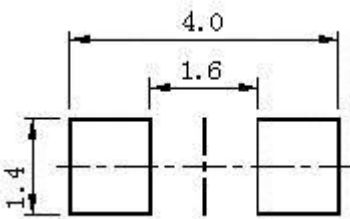
### Applications

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

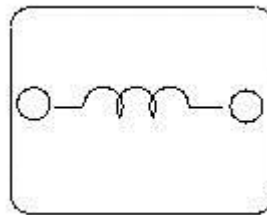
### Dimension - [mm]



### Recommended Land pattern - [mm]



### Wire Connection



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### Electrical Characteristics

Part Number	Inductance [Within] ( $\mu$ H) ※1	D.C.R. at 20°C Max.(Typ.) (m $\Omega$ )	Saturation Current (A) Max.(Typ.) ※2	Temperature Rise Current (A) Max.(Typ.) ※3
0315CDMCCDS-R56MC	0.56 $\pm$ 20%	25.00 (20.50)	5.20 (6.10)	(5.50)
0315CDMCCDS-R82MC	0.82 $\pm$ 20%	32.00 (26.50)	4.20 (4.90)	(5.00)
0315CDMCCDS-1R0MC	1.00 $\pm$ 20%	41.00 (34.00)	4.10 (4.80)	(4.30)
0315CDMCCDS-1R5MC	1.50 $\pm$ 20%	65.00 (53.50)	3.40 (4.00)	(3.50)
0315CDMCCDS-2R2MC	2.20 $\pm$ 20%	94.00 (78.00)	3.60 (4.30)	(2.80)
0315CDMCCDS-3R3MC	3.30 $\pm$ 20%	123 (102.50)	1.90 (2.20)	(2.50)
0315CDMCCDS-4R7MC	4.70 $\pm$ 20%	199 (166)	1.90 (2.30)	(1.80)

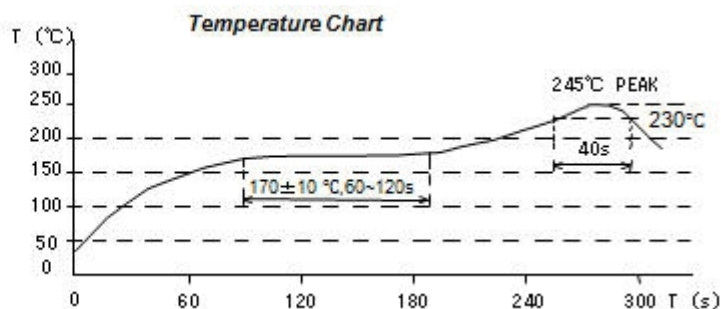
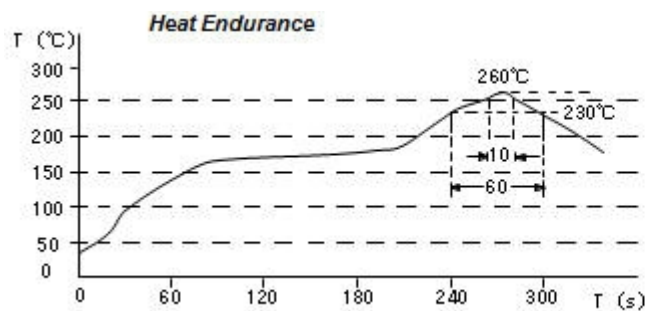
※1 Measuring frequency inductance at 100KHz, 1.0V

※2 Saturation current: The actual value of DC current when the inductance is over 70% of the initial value.

※3 Temperature rise current: The actual value of DC current when the coil temperature rise is  $\Delta T=40^{\circ}\text{C}$ .

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

### Solder Reflow Condition



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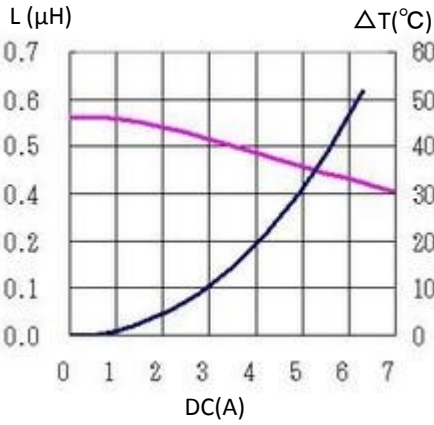


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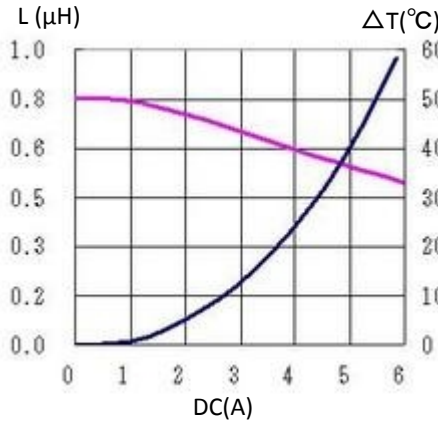
### Saturation Current & Temperature Rise Graph

— L (20°C) —  $\Delta T$

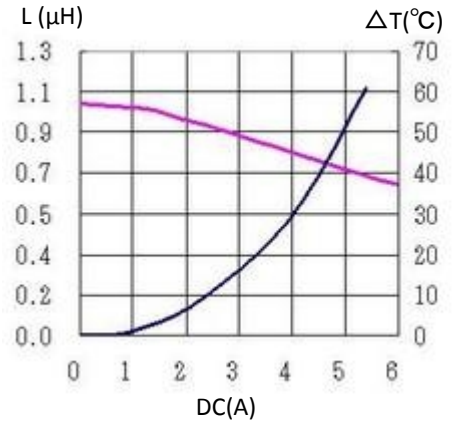
1. 0315CDMCCDS-R56MC



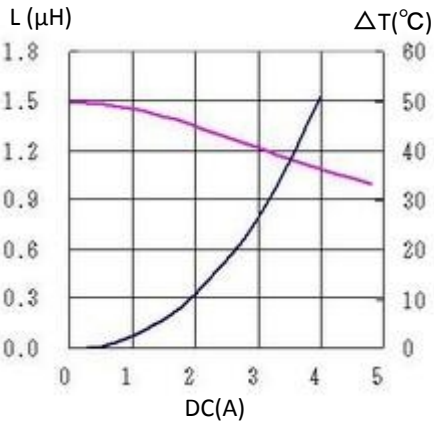
2. 0315CDMCCDS-R82MC



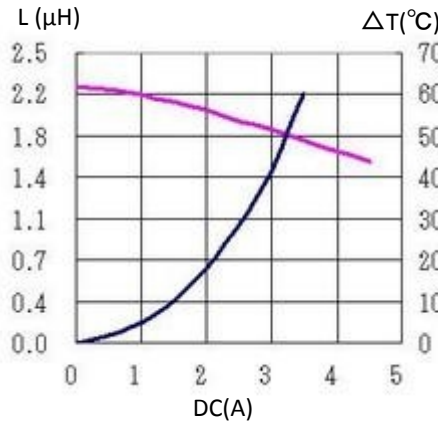
3. 0315CDMCCDS-1R0MC



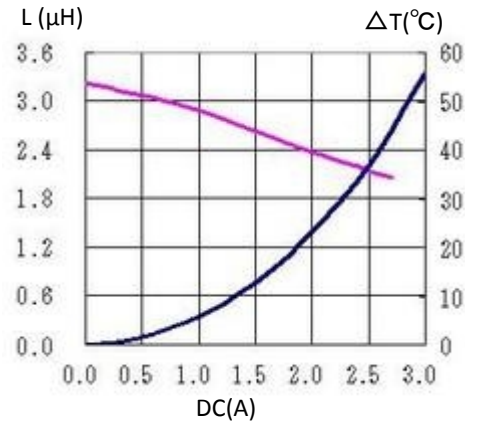
4. 0315CDMCCDS-1R5MC



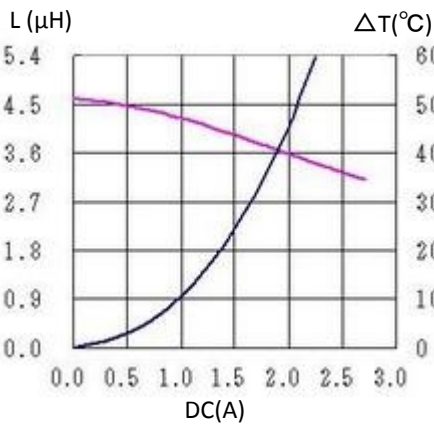
5. 0315CDMCCDS-2R2MC



6. 0315CDMCCDS-3R3MC



7. 0315CDMCCDS-4R7MC



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