



**THE DATASHEET OF  
0320CDMCCDS-1R0MC**



# SMD Power Inductor

## 0320CDMCC/DS



Recommended Type

### Description

- Metal compound molding type construction
- Magnetically shielded
- Low audible core noise
- Suitable for large current
- LxWxH:3.7x3.4x2.0mm Max.
- Product weight: 0.107g (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

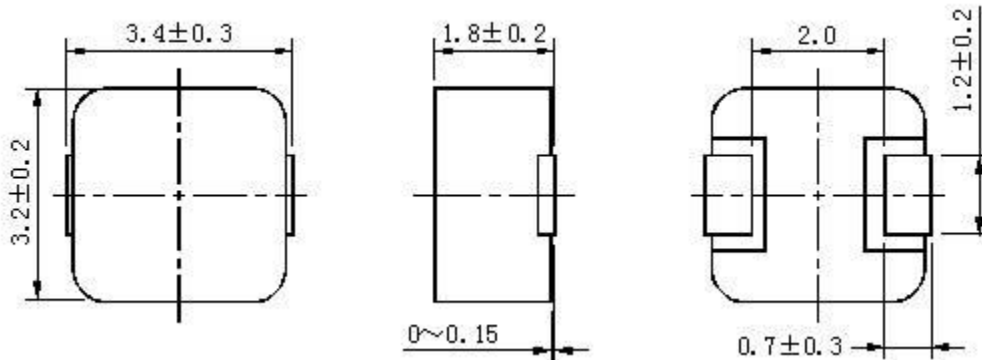
### Packaging

- Carrier tape and reel packaging
- 3000pcs per reel

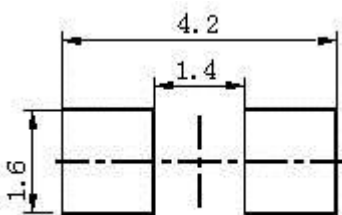
### Applications

- 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

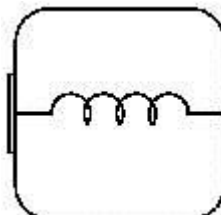
### Dimension - [mm]



### 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
0320CDMCCDS-R22MC	0.22 $\pm$ 20%	10.20 (8.50)	6.90 (8.10)	(10.00)
0320CDMCCDS-R33MC	0.33 $\pm$ 20%	11.40 (9.50)	6.50 (7.60)	(9.50)
0320CDMCCDS-R47MC	0.47 $\pm$ 20%	15.60 (13.00)	5.20 (6.20)	(7.50)
0320CDMCCDS-R56MC	0.56 $\pm$ 20%	18.00 (15.00)	4.80 (5.70)	(7.00)
0320CDMCCDS-R68MC	0.68 $\pm$ 20%	21.60 (18.00)	4.60 (5.40)	(6.50)
0320CDMCCDS-R82MC	0.82 $\pm$ 20%	27.00 (22.50)	4.50 (5.30)	(5.60)
0320CDMCCDS-1R0MC	1.00 $\pm$ 20%	31.20 (26.00)	4.40 (5.20)	(5.50)
0320CDMCCDS-1R5MC	1.50 $\pm$ 20%	45.60 (38.00)	3.20 (3.80)	(4.00)
0320CDMCCDS-2R2MC	2.20 $\pm$ 20%	72.00 (60.00)	2.90 (3.40)	(3.50)
0320CDMCCDS-3R3MC	3.30 $\pm$ 20%	108 (90.00)	2.10 (2.50)	(2.50)

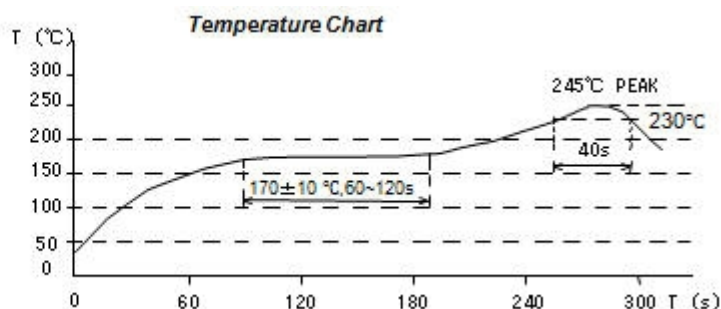
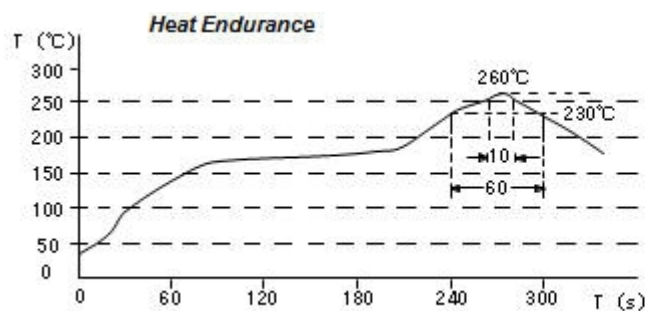
※1 Measuring frequency inductance at 100KHz, 1.0V

※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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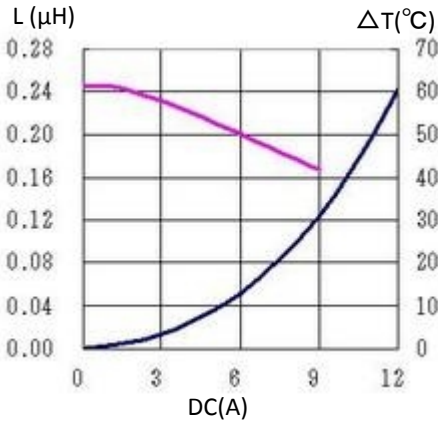
## 0320CDMCC/DS



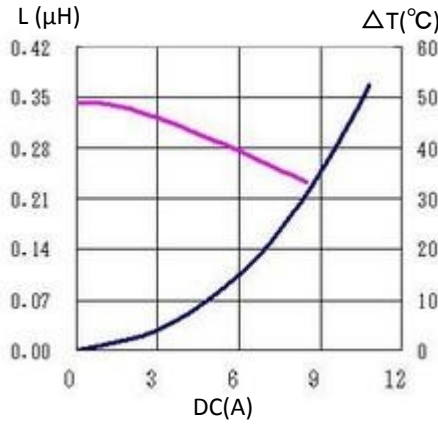
### Saturation Current & Temperature Rise Graph

— L (20°C) —  $\Delta T$

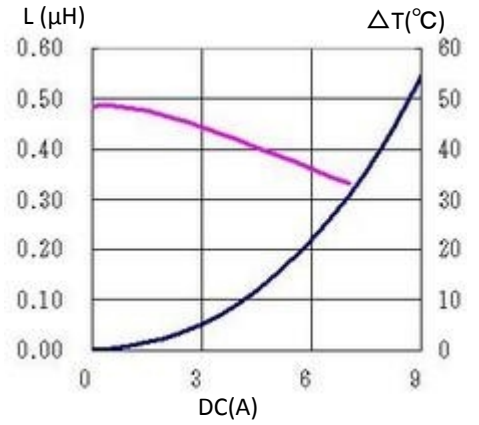
1. 0320CDMCCDS-R22MC



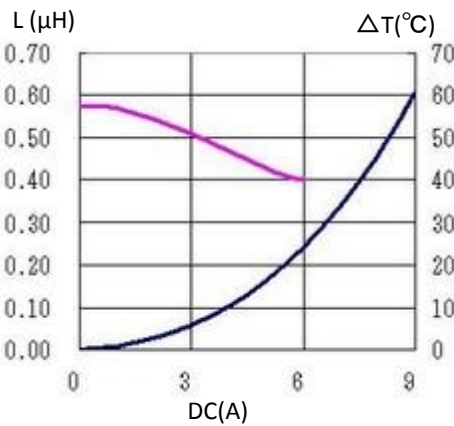
2. 0320CDMCCDS-R33MC



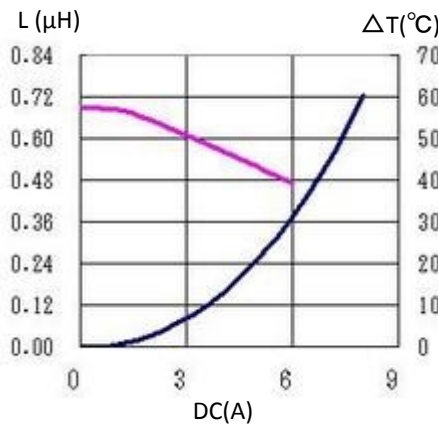
3. 0320CDMCCDS-R47MC



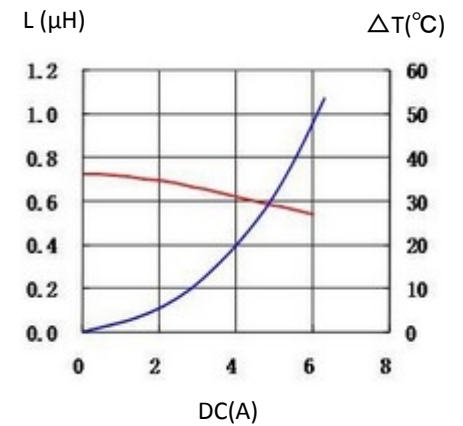
4. 0320CDMCCDS-R56MC



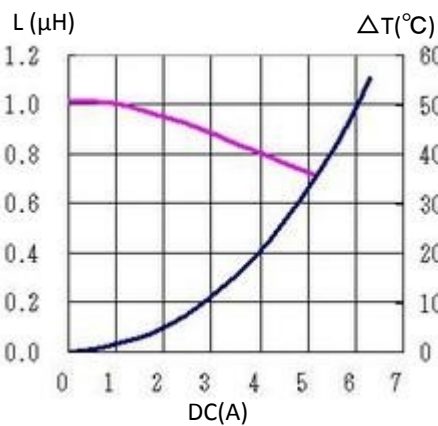
5. 0320CDMCCDS-R68MC



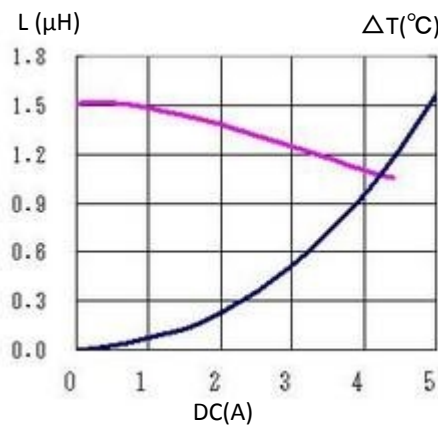
6. 0320CDMCCDS-R82MC



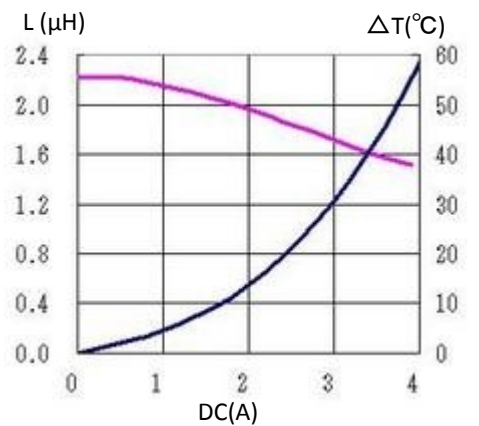
7. 0320CDMCCDS-1R0MC



8. 0320CDMCCDS-1R5MC



9. 0320CDMCCDS-2R2MC



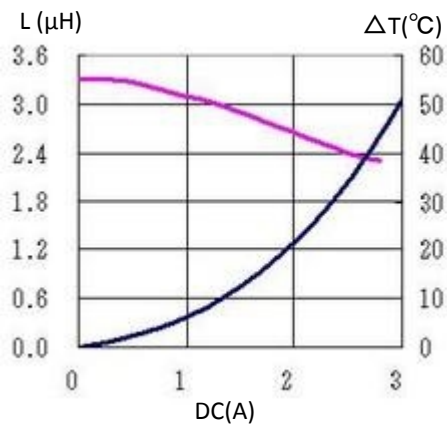
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Recommended Type

### 10. 0320CDMCCDS-3R3MC



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