

# SMD Power Inductor

## 0640CDMCC/DS



Recommended Type



### Description

- Metal compound molding type construction
- Magnetically shielded
- Low audible core noise
- Suitable for large current
- L×W×H: 7.4×6.8×4.0mm Max.
- Product weight: 1.0g (Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance and Halogen free available

### Environmental Data

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

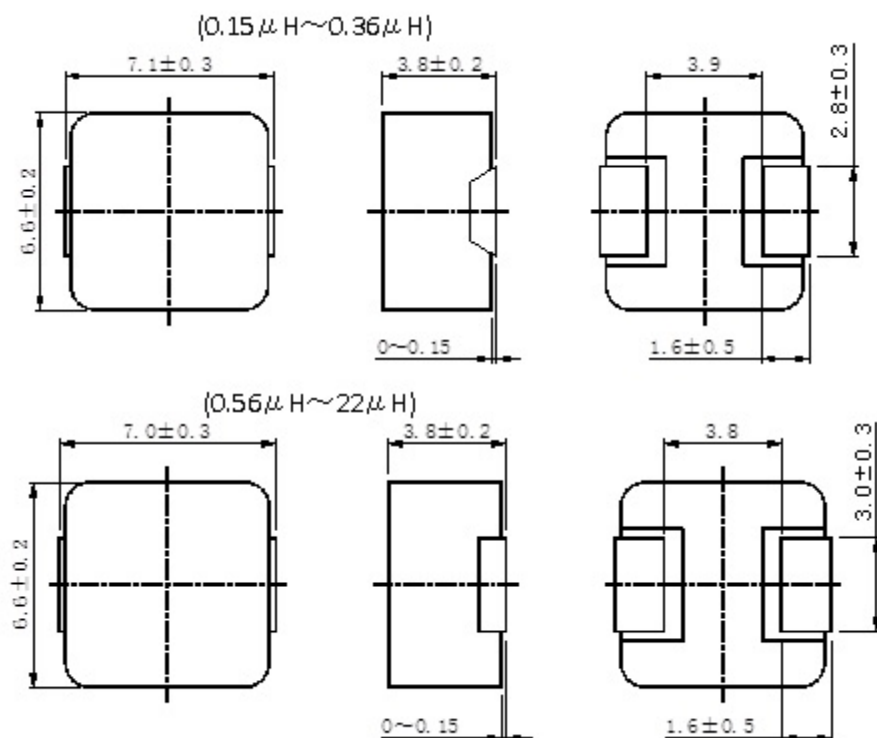
### Packaging

- Carrier tape and reel packaging.
- 1,000pcs per 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 converter in distributed power systems

### Dimension - [mm]



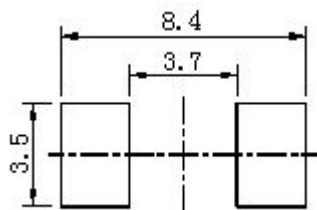
Note: This specification is subject to change without notice. Please contact your nearest sales office for updated information when placing an order.

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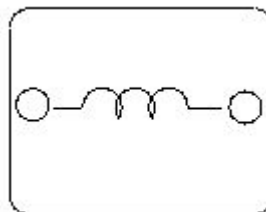
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### Recommended Land pattern - [mm]



### Wire Connection



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### Electrical Characteristics

| Part Number       | Inductance<br>[Within]<br>( $\mu$ H) ※1 | D.C.R. at 20°C<br>Max.(Typ.) (m $\Omega$ ) | Saturation Current<br>(A) Max.(Typ.) ※2 | Temperature<br>Rise Current<br>(A) Max.(Typ.)<br>※3 |
|-------------------|-----------------------------------------|--------------------------------------------|-----------------------------------------|-----------------------------------------------------|
| 0640CDMCCDS-R15MC | 0.15 $\pm$ 20%                          | 0.73<br>(0.66)                             | 42.50<br>(50.00)                        | (45.00)                                             |
| 0640CDMCCDS-R24MC | 0.24 $\pm$ 20%                          | 1.15<br>(1.00)                             | 25.00<br>(28.50)                        | (38.00)                                             |
| 0640CDMCCDS-R36MC | 0.36 $\pm$ 20%                          | 1.70<br>(1.50)                             | 22.50<br>(26.50)                        | (27.00)                                             |
| 0640CDMCCDS-R56MC | 0.56 $\pm$ 20%                          | 3.90<br>(3.30)                             | 20.00<br>(24.00)                        | (20.00)                                             |
| 0640CDMCCDS-1R0MC | 1.00 $\pm$ 20%                          | 6.80<br>(5.50)                             | 13.50<br>(16.00)                        | (15.00)                                             |
| 0640CDMCCDS-1R5MC | 1.50 $\pm$ 20%                          | 8.20<br>(6.80)                             | 9.70<br>(11.50)                         | (14.00)                                             |
| 0640CDMCCDS-2R2MC | 2.20 $\pm$ 20%                          | 10.80<br>(8.60)                            | 9.40<br>(11.00)                         | (12.00)                                             |
| 0640CDMCCDS-3R3MC | 3.30 $\pm$ 20%                          | 21.50<br>(18.00)                           | 8.50<br>(10.00)                         | (8.00)                                              |
| 0640CDMCCDS-4R7MC | 4.70 $\pm$ 20%                          | 35.00<br>(29.00)                           | 8.00<br>(9.50)                          | (5.70)                                              |
| 0640CDMCCDS-6R8MC | 6.80 $\pm$ 20%                          | 45.50<br>(37.50)                           | 6.00<br>(7.00)                          | (5.00)                                              |
| 0640CDMCCDS-100MC | 10.00 $\pm$ 20%                         | 68.50<br>(57.00)                           | 5.20<br>(6.20)                          | (4.20)                                              |
| 0640CDMCCDS-150MC | 15.00 $\pm$ 20%                         | 89.00<br>(74.50)                           | 3.90<br>(4.60)                          | (3.80)                                              |
| 0640CDMCCDS-220MC | 22.00 $\pm$ 20%                         | 133<br>(110)                               | 3.20<br>(3.80)                          | (3.30)                                              |

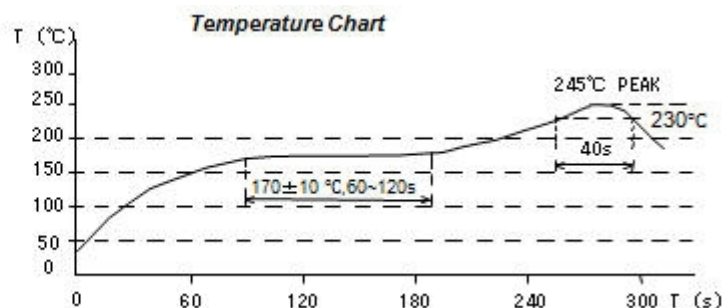
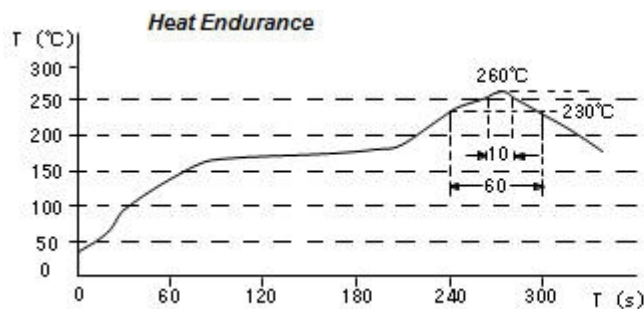
※1 Measuring frequency Inductance at 100kHz 1V.

※2 Saturation current: This indicates the value of D.C. current when the inductance becomes 30% lower than its initial value.

※3 Temperature rise current: The actual value of D.C. current when the temperature of coil becomes

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

### Solder Reflow Condition



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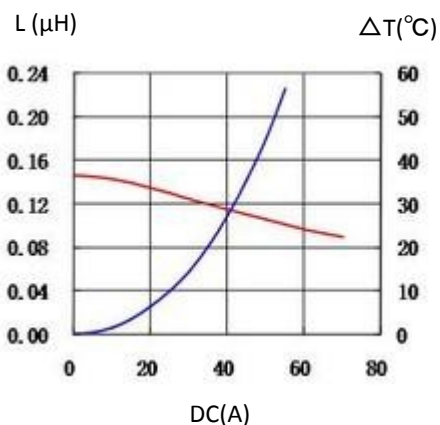


Recommended Type

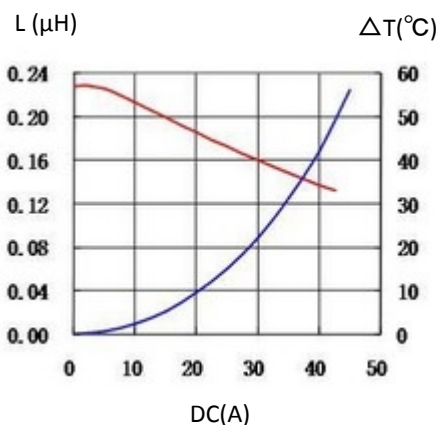
### Saturation Current & Temperature Rise Graph

— L (20°C) —  $\Delta T$

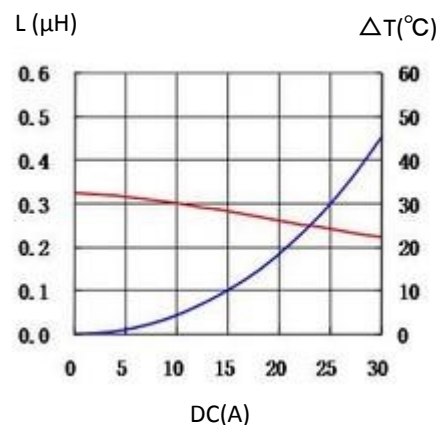
1. 0640CDMCCDS-R15MC



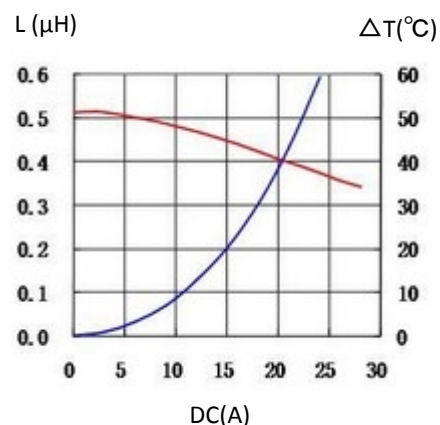
2. 0640CDMCCDS-R24MC



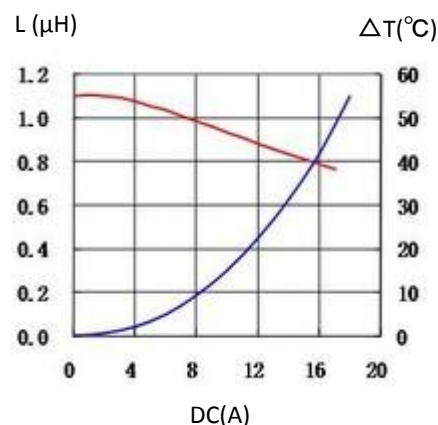
3. 0640CDMCCDS-R36MC



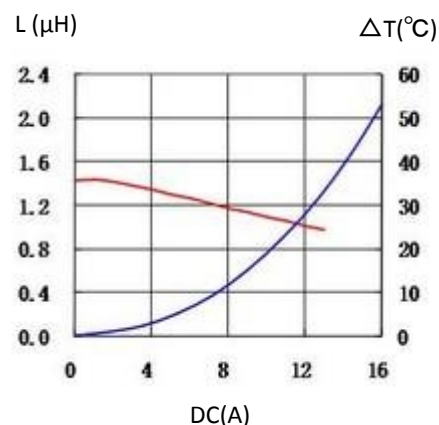
4. 0640CDMCCDS-R56MC



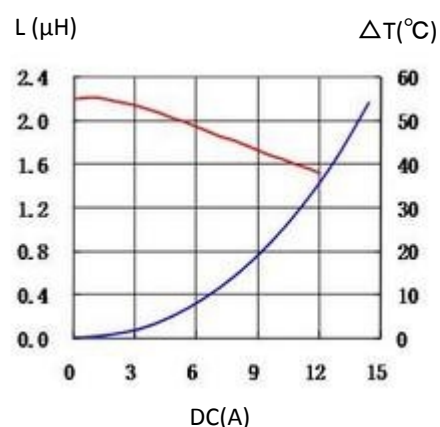
5. 0640CDMCCDS-1R0MC



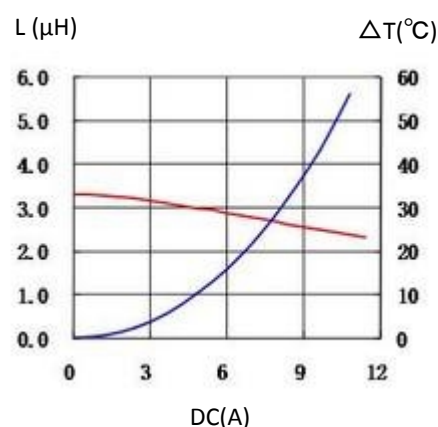
6. 0640CDMCCDS-1R5MC



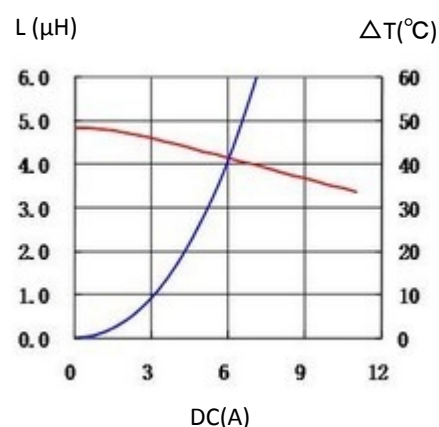
7. 0640CDMCCDS-2R2MC



8. 0640CDMCCDS-3R3MC



9. 0640CDMCCDS-4R7MC

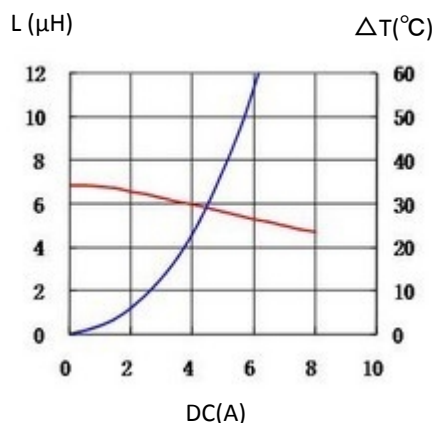


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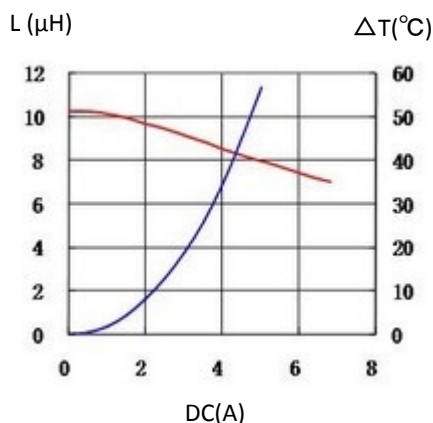
## 0640CDMCC/DS



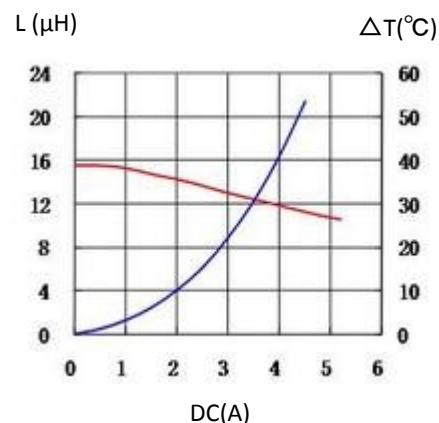
10. 0640CDMCCDS-6R8MC



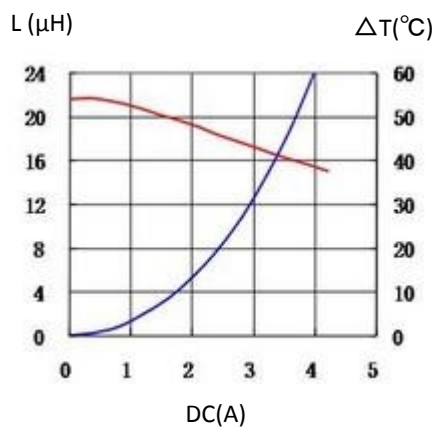
11. 0640CDMCCDS-100MC



12. 0640CDMCCDS-150MC



13. 0640CDMCCDS-220MC



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[0640CDMCCDS-R33MC](#)