

# SMD Power Inductor

## 252012CDMCC/DS



### Description

- Metal compound molding type construction
- Magnetically shielded
- Low audible core noise
- Suitable for large current.
- L×W×H: 2.7×2.2×1.2mm Max.
- Product weight: 0.36mg (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

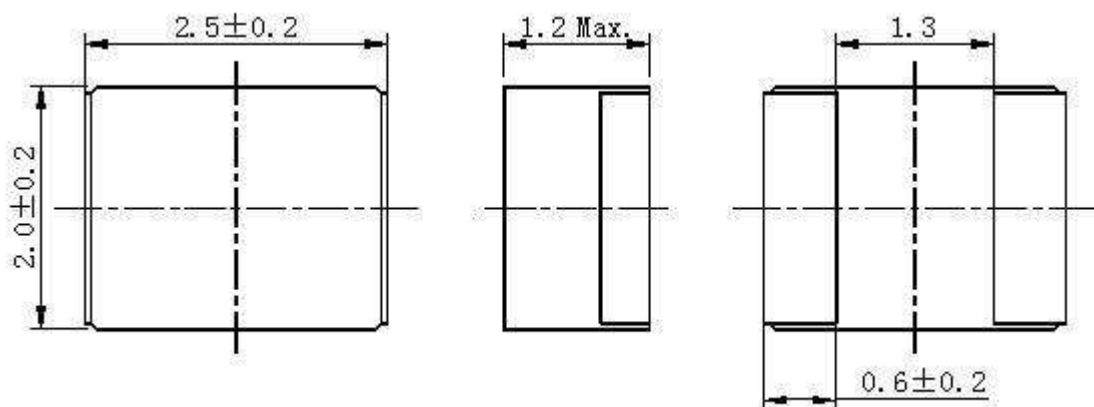
### Packaging

- Carrier tape and reel packaging. 3,000pcs per reel.

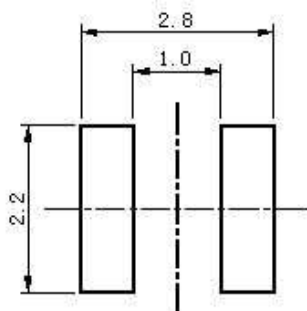
### Applications

- DC/DC converter for CPU in Notebook PC. Smartphones, LCD displays, HDDs, DVDs, DVCs, DSCs, PDAs ect..
- Thin type on-board power supply module for exchanger VRM for server.
- Low profile, high current power supplies. Battery powered devices.

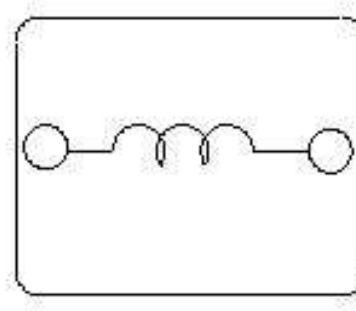
### Dimension - [mm]



### Recommended Land pattern - [mm]



### Wire Connection



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



### 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>at 20°C(A) ※2 | Temperature<br>Rise Current<br>(A) ※3 |
|---------------------|-----------------------------------------|------------------------------------------|-------------------------------------|---------------------------------------|
| 252012CDMCCDS-R47MC | 0.47 $\pm$ 20%                          | 25.00<br>(21.00)                         | 6.10                                | 4.80                                  |
| 252012CDMCCDS-1R0MC | 1.00 $\pm$ 20%                          | 55.00<br>(46.00)                         | 3.90                                | 3.20                                  |
| 252012CDMCCDS-2R2MC | 2.20 $\pm$ 20%                          | 113 (94.00)                              | 2.80                                | 2.00                                  |
| 252012CDMCCDS-3R3MC | 3.30 $\pm$ 20%                          | 222 (185)                                | 1.90                                | 1.50                                  |
| 252012CDMCCDS-4R7MC | 4.70 $\pm$ 20%                          | 264 (220)                                | 1.70                                | 1.40                                  |

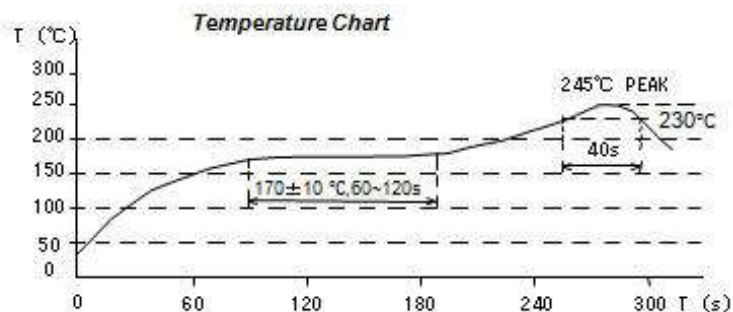
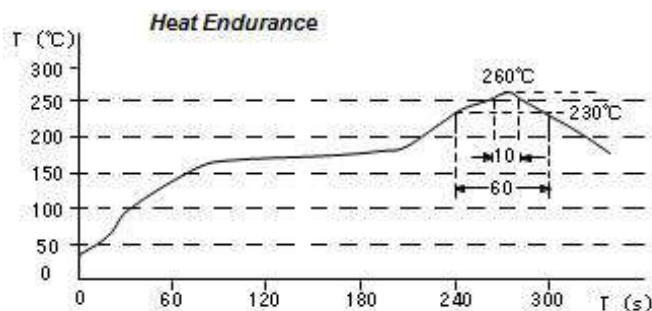
※ 1. Measuring frequency Inductance at 1MHz, 0. 1V.

※ 2. Saturation current: The actual value of D.C current when the inductance decreases to 70% of it's initial value.

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

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

### Solder Reflow Condition



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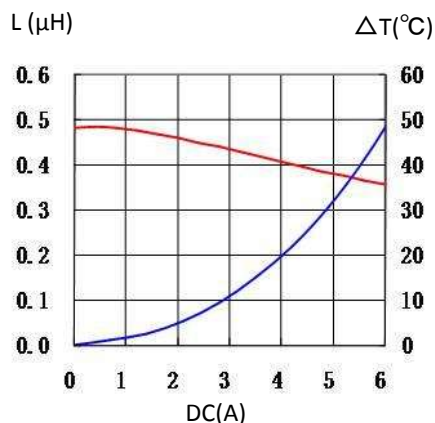
252012CDMCC/DS



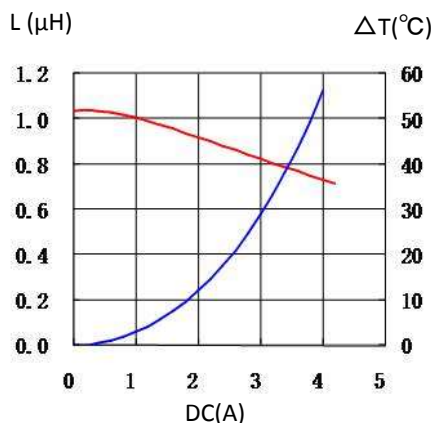
## Saturation Current & Temperature Rise Graph

— L (20°C) —  $\Delta T$

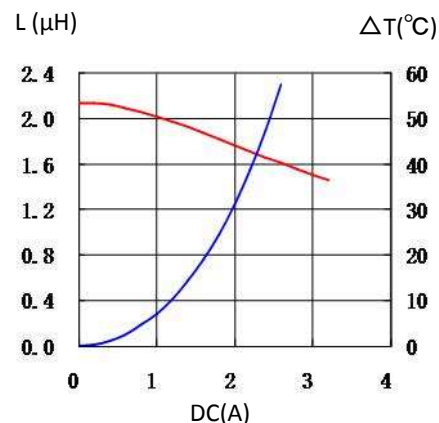
1. 252012CDMCCDS-R47MC



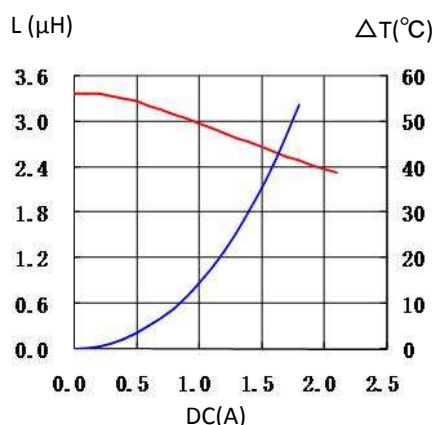
2. 252012CDMCCDS-1R0MC



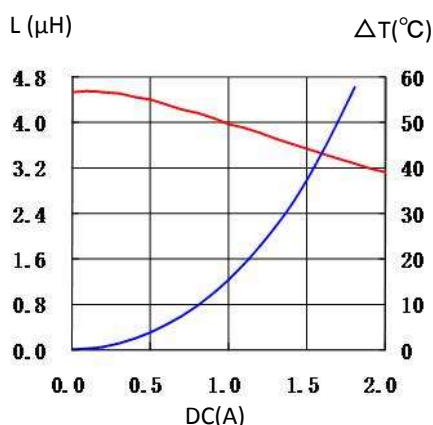
3. 252012CDMCCDS-2R2MC



4. 252012CDMCCDS-3R3MC



5. 252012CDMCCDS-4R7MC



For sales office information, please [click here](#) to visit our website.