



**THE DATASHEET OF  
252012CDMCDDS-1R0MC**



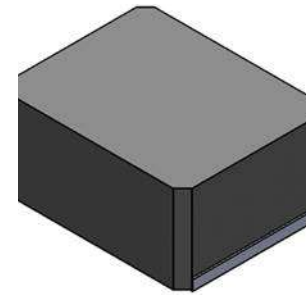
# SMD Power Inductor

## 252012CDMCD/DS



### Description

- Metal compound molding type construction
- Magnetically shielded
- Low audible core noise
- Suitable for large current.
- LxWxH:2.7x2.2x1.2mm Max.
- Product weight: 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

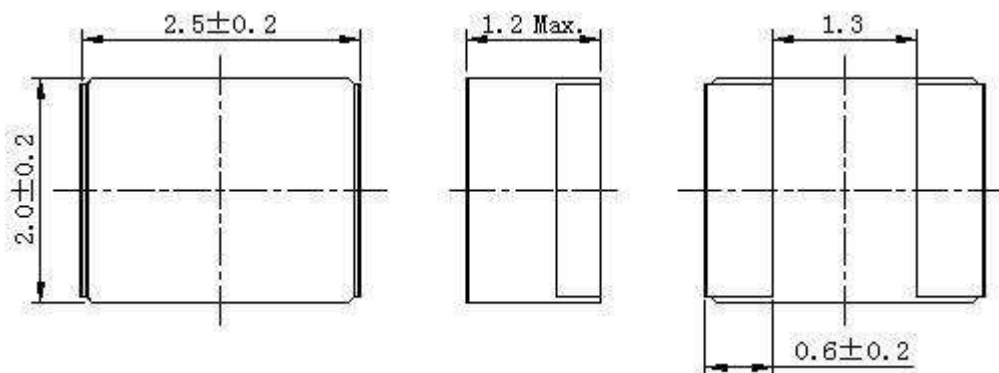
### Packaging

- Carrier tape and reel packaging.
- 3000Pcs 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]

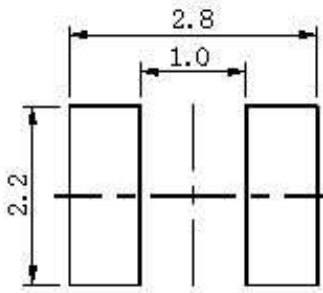


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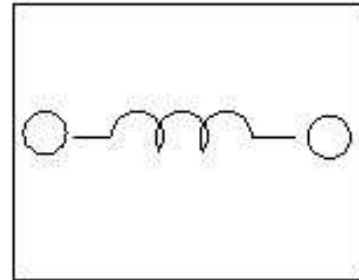
## 252012CDMCD/DS



### Recommended Land pattern - [mm]



### Wire Connection



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## 252012CDMCD/DS



### 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
252012CDMCDDS-R47MC	0.47 $\pm$ 20%	21.00 (17.00)	6.20 (7.30)	(6.10)
252012CDMCDDS-R68MC	0.68 $\pm$ 20%	30.00 (25.00)	5.40 (6.30)	(5.50)
252012CDMCDDS-1R0MC	1.00 $\pm$ 20%	42.00 (35.00)	4.60 (5.40)	(4.20)
252012CDMCDDS-1R5MC	1.50 $\pm$ 20%	61.00 (53.00)	3.10 (3.60)	(3.60)
252012CDMCDDS-2R2MC	2.20 $\pm$ 20%	82.00 (68.00)	2.80 (3.30)	(3.00)

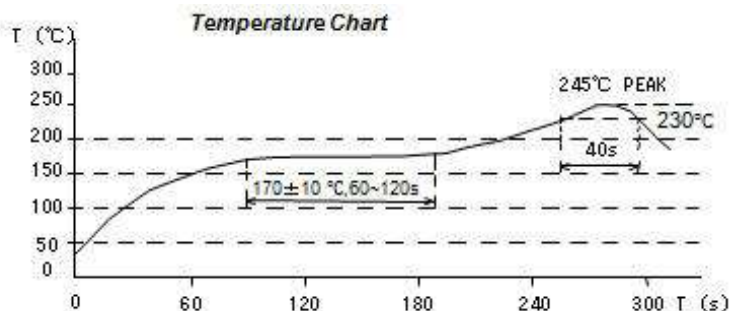
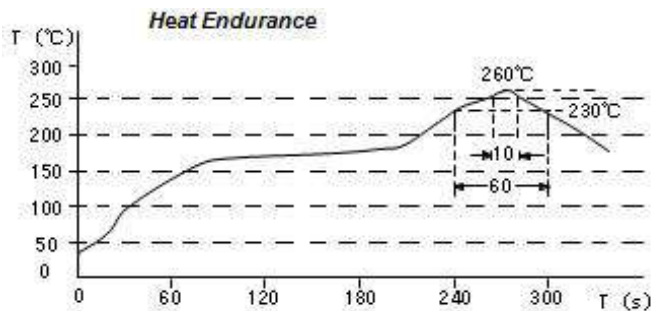
※1 Measuring frequency Inductance at 1MHz,0.1V

※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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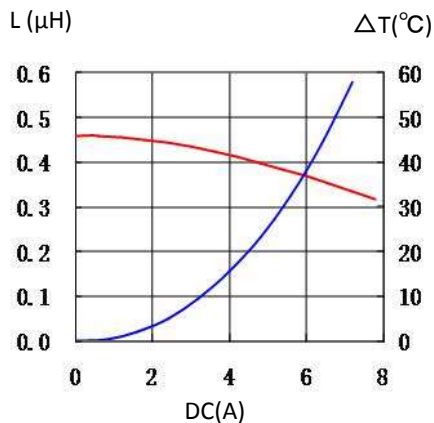
## 252012CDMCD/DS



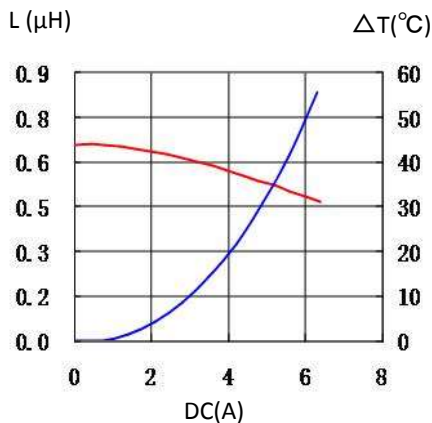
### Saturation Current & Temperature Rise Graph

— L (20°C) —  $\Delta T$

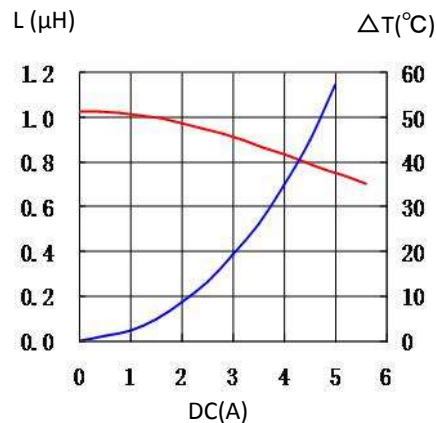
1. 252012CDMCDDS-R47MC



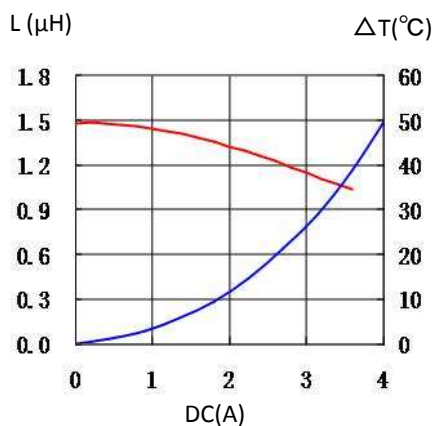
2. 252012CDMCDDS-R68MC



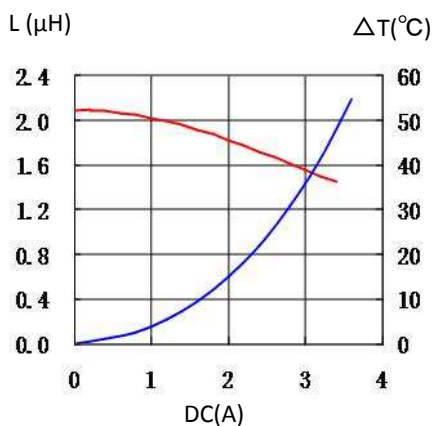
3. 252012CDMCDDS-1R0MC



4. 252012CDMCDDS-1R5MC



5. 252012CDMCDDS-2R2MC



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