

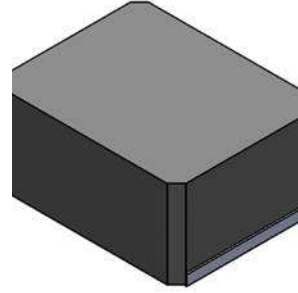
# SMD Power Inductor

## 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: 0.38mg (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

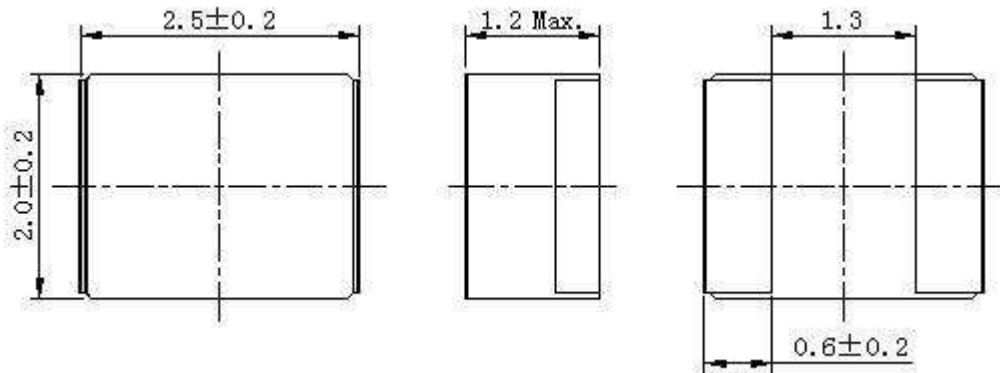
### Packaging

- 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]



深圳市亚特联科技有限公司  
SHENZHEN YATELIAN TECHNOLOGY CO., LTD

技术联络:

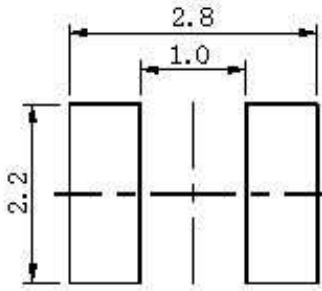
唐辉若 139 2744 9134

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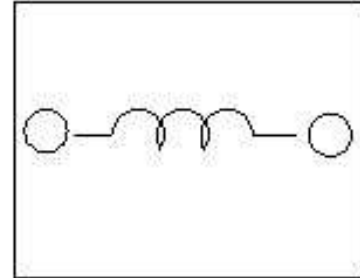
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## Recommended Land pattern - [mm]



## Wire Connection



<p>轻触开关、检测开关、滑动开关、编码器、电位器、传感器、车用通讯模块、IOT物联网模块、连接弹片、电流传感器、VCM马达、3D振动马达、打印头、非球面玻璃透镜</p>	<p>FPC连接器、BTB连接器、汽车类连接器、高频率同轴、记忆卡、电源连接器、太阳能电池模块用连接器、电源插座、摄像模块插座、电池连接器、电容式触摸屏、摇控器</p>
<p>开关、检测开关、SD卡座、小电流继电器、电磁阀</p>	<p>电位器、编码器、传感器、DIP开关、游戏用小摇杆、英晶体、振荡器</p>
<p>轻触开关、按动开关、微动开关、钮子开关、跷板开关、拨码开关、按键开关、旋转开关、钥匙开关、智能卡读卡器、高可靠性连接器</p>	<p>轻触开关、汽车用开关、编码器、电位器、可调电阻、继电器、连接器、电池、传感器、电路保护产品、半导体元件</p>
<p>EMC设计制品、防震·缓冲·抑音制品、热传导设计制品、石墨材料、防干扰元件、铜箔</p>	<p>360全景镜头、高清鱼眼镜头、步进马达、马达驱动组件、读卡机、双色成型品、搬运机器人</p>
<p>共模滤波器、压敏电阻、防干扰屏蔽夹、电磁干扰(EMI)滤波器、静电放电(ESD)滤波器</p>	<p>SMD 超小型法拉电容、法拉电容、超级电容、新能源动力电容包、微型马达、振动马达</p>
<p>贴片LED、手机闪光灯、汽车安规的LED元件、光感IC、红外线遥控信号接收、光耦器件、光纤连接端口</p>	<p>振荡器、恒温振荡器、石英晶体谐振器、3合1光传感器、车用晶体、蓝宝石晶体</p>
<p>功率电感器、射频电感器、电源变压器、信号磁性元件、电磁兼容、感应器&amp;致动器、一体化电源模块、车载模块、陶瓷元件、柔性连接模块</p>	<p>低频天线、高频电感、高功率电感、绕线电感、共模滤波器、体合金功率电感</p>
<p>直流或步进电机、无刷直流电机、高转矩电机</p>	<p>二氧化锰锂电池、碱性电池、充电电池、功能材料产品等</p>
<p>2.4 GHz、Mifare、NFC、RFID、无线充电等所有无线连接解决方案、汽车多媒体和音频处理、电源管理、射频、传感器、信号链等解决方案。</p>	<p>保险丝、聚合物ESD抑制器、自恢复PTC、压敏电阻、传感器、MOS管、TVS等等</p>

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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 at 20°C(A) ※2	Temperature Rise Current (A) ※3
252012CDMCDDS-R47MC	0.47 $\pm$ 20%	21.00 (17.00)	7.30	6.10
252012CDMCDDS-R68MC	0.68 $\pm$ 20%	30.00 (25.00)	6.30	5.50
252012CDMCDDS-1R0MC	1.00 $\pm$ 20%	42.00 (35.00)	5.40	4.20
252012CDMCDDS-1R5MC	1.50 $\pm$ 20%	61.00 (53.00)	3.60	3.60
252012CDMCDDS-2R2MC	2.20 $\pm$ 20%	82.00 (68.00)	3.30	3.00

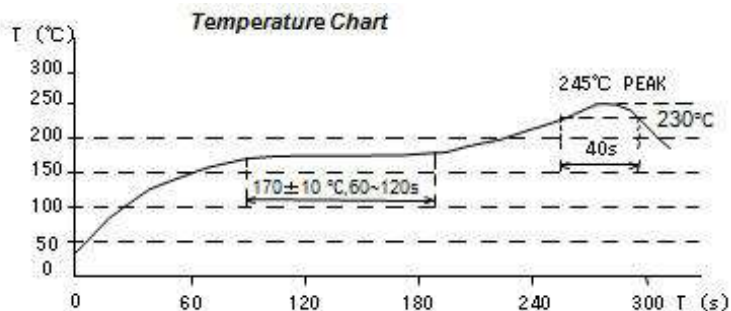
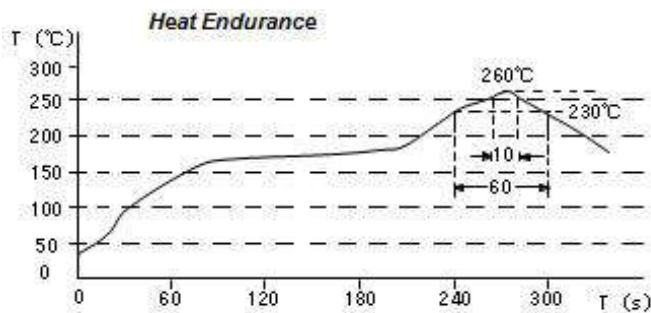
※1 Measuring frequency Inductance at 1MHz,0.1V

※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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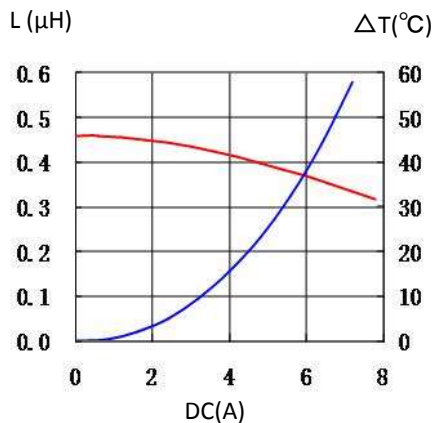
## 252012CDMCD/DS



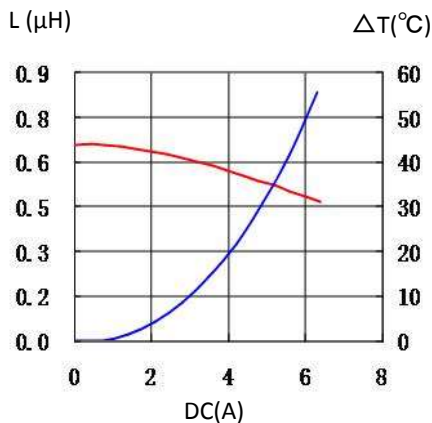
### Saturation Current & Temperature Rise Graph

— L (20°C) —  $\Delta T$

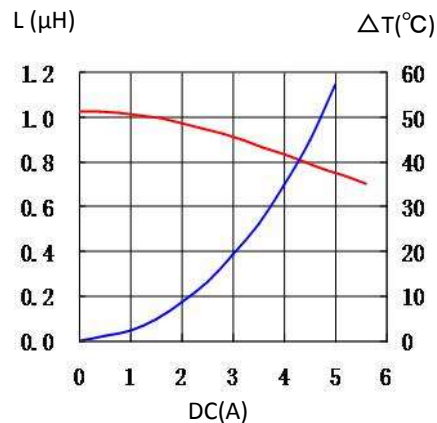
1. 252012CDMCDDS-R47MC



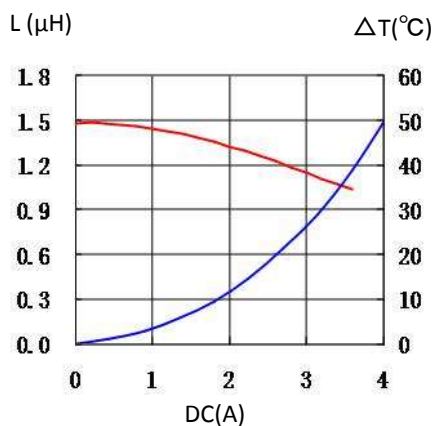
2. 252012CDMCDDS-R68MC



3. 252012CDMCDDS-1R0MC



4. 252012CDMCDDS-1R5MC



5. 252012CDMCDDS-2R2MC

