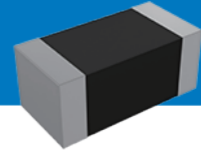


叠层片式扼流电感—MCL 系列

Multilayer Chip Inductor for Choke – MCL Series



工作温度
Operating Temp

- ◆ $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$

特征
Features

- ◆ 迭层独石结构、高度可靠性
- ◆ 良好的可焊性和耐焊性
- ◆ 良好的磁屏蔽，无交叉耦合
- ◆ 通过磁体材料的改进，偏置电流大幅度提高
- ◆ 直流电阻大幅度降低
- ◆ Monolithic structure for high reliability
- ◆ Excellent solderability and high heat resistance
- ◆ No cross coupling due to magnetic shield
- ◆ High DC bias current due to developed material
- ◆ Low DC resistance

用途
Applications

- ◆ 用于个人电脑、移动电话、平板电脑、智能家电等各种消费类电子设备直流电源线的扼流线路
- ◆ Choke circuits in DC power line of consumer electronics such as Personal computers, mobile phones, tablets and smart home appliances

产品型号
Product Identification

| | | | | | | | | | | | |
|---|-----|---|------|---|---|---|-----|---|---|---|---|
| 1 | MCL | 2 | 1608 | 3 | S | 4 | 1R0 | 5 | M | 6 | T |
|---|-----|---|------|---|---|---|-----|---|---|---|---|

| | |
|-----|-----------------------------------|
| 1 | 分类 Type |
| MCL | 片式扼流电感 Chip Inductor for Choke |

| | |
|-------------|---|
| 2 | 外形尺寸 (L×W) (mm) External Dimensions (L×W) (mm) |
| 1608 [0603] | 1.6×0.8 |
| 2012 [0805] | 2.0×1.25 |

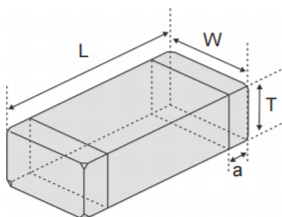
| | |
|---|-------------------|
| 3 | 特性类别 Feature Type |
| S | 标准型 Standard |
| H | 改善型 Ir-Improved |

| | |
|---------|--------------------------|
| 4 | 公称电感量 Nominal Inductance |
| Example | Nominal Value |
| 1R0 | 1.0μH |
| ※R= 小数点 | |

| | |
|---|---------------------------|
| 5 | 电感公差 Inductance Tolerance |
| M | ±20% |
| N | ±30% |

| | |
|---|----------------|
| 6 | 包装 Packing |
| T | 编带 Tape & Reel |

外观尺寸
Shape and Dimensions



| Type | L | W | T | a |
|----------------|---|-------------------------|--|------------------------|
| MCL1608 [0603] | 1.6±0.15 [.063±.006] | 0.8±0.15 [.031±.006] | 0.8±0.15 [.031±.006] | 0.3±0.2 [.012±.008] |
| MCL2012 [0805] | 2.0 (+0.3, -0.1) [.079 (+.012, -.004)] | 1.25±0.2 [.049±.008] | 0.85±0.2 [.033±.008] 1.25±0.2 [.049±.008] | 0.5±0.3 [.020±.012] |

规格特性 Specifications

MCL1608 TYPE

| 型号 Part Number | 电感量 Inductance | L 测试频率 L Test Freq. | 直流电阻 DC Resistance | | 自谐振频率 Min. Self-resonant Frequency | 额定电流 Max. Rated Current | 厚度 Thickness |
|-------------------|-------------------|------------------------|-----------------------|-------|---------------------------------------|----------------------------|-------------------------|
| 单位 Units | μH | MHz | Ω | | MHz | A | mm [inch] |
| 符号 Symbol | L | Freq. | DCR | | S.R.F | Ir* | T |
| | | | Max. | Typ. | | | |
| MCL1608SR10 □ T | 0.1 | 1 | 0.182 | 0.140 | 240 | 0.70 | 0.8±0.15 [.031±.006] |
| MCL1608SR22 □ T | 0.22 | 1 | 0.351 | 0.270 | 150 | 0.55 | |
| MCL1608SR47 □ T | 0.47 | 1 | 0.546 | 0.420 | 105 | 0.40 | |
| MCL1608S1R0 □ T | 1.0 | 1 | 0.260 | 0.200 | 75 | 0.19 | |
| MCL1608S2R2 □ T | 2.2 | 1 | 0.520 | 0.400 | 50 | 0.14 | |
| MCL1608S4R7 □ T | 4.7 | 1 | 0.780 | 0.600 | 35 | 0.10 | |
| MCL1608S100 □ T | 10 | 1 | 1.170 | 0.900 | 20 | 0.05 | |

MCL2012 TYPE

| 型号 Part Number | 电感量 Inductance | L 测试频率 L Test Freq. | 直流电阻 DC Resistance | | 自谐振频率 Min. Self-resonant Frequency | 额定电流 Max. Rated Current | 厚度 Thickness |
|-------------------|-------------------|------------------------|-----------------------|-------|---------------------------------------|----------------------------|-------------------------|
| 单位 Units | μH | MHz | Ω | | MHz | A | mm [inch] |
| 符号 Symbol | L | Freq. | DCR | | S.R.F | Ir* | T |
| | | | Max. | Typ. | | | |
| MCL2012SR10 □ T | 0.1 | 1 | 0.091 | 0.070 | 235 | 1.00 | 0.85±0.2 [.033±.008] |
| MCL2012SR22 □ T | 0.22 | 1 | 0.169 | 0.130 | 170 | 0.80 | |
| MCL2012SR47 □ T | 0.47 | 1 | 0.234 | 0.180 | 125 | 0.55 | |
| MCL2012S1R0 □ T | 1.0 | 1 | 0.260 | 0.200 | 75 | 0.30 | |
| MCL2012S2R2 □ T | 2.2 | 1 | 0.364 | 0.280 | 50 | 0.22 | |
| MCL2012S4R7 □ T | 4.7 | 1 | 0.390 | 0.300 | 25 | 0.18 | |
| MCL2012S100 □ T | 10 | 1 | 0.650 | 0.500 | 15 | 0.06 | 1.25±0.2 [.049±.008] |
| MCL2012H100 □ T | 10 | 1 | 0.650 | 0.500 | 20 | 0.10 | |

※□: 请指定电感量精度代码 (M=±20%, N=±30%);

※□: Please specify the inductance tolerance code (M=±20%, N=±30%);

※*: 额定电流是施加直流偏置后电感值下降50%的直流电流值。

※*: The rated current is the value of DC current at which the inductance value is dropped within 50% with the application of DC bias.

电气特性 Typical Electrical Characteristics

Inductance vs. Frequency Characteristics

