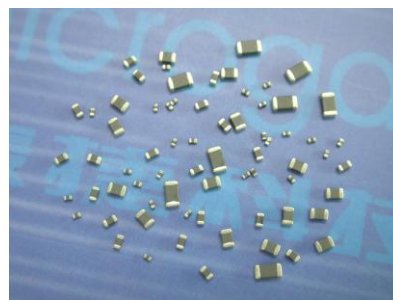


Multilayer Chip Ferrite Large Current Inductor (叠层片式铁氧体大电流电感 MGFL 系列)

FEATURES 特点

- Compact size and light weight 尺寸小, 重量轻
- Excellent solderability and heat resistance for either flow or reflow soldering 良好的可焊性和耐焊性
- No cross coupling between inductors due to magnetic shield 良好的磁屏蔽抗干扰性
- Low RDC and High IDC 低直流电阻和高 IDC 特点



APPLICATIONS 应用

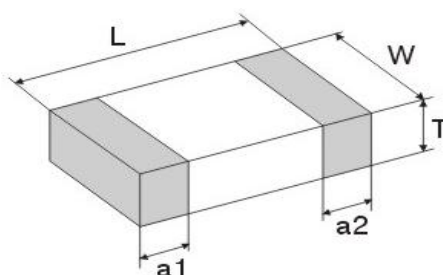
- Cellular platform DC-DC converter circuit(移动设备用 DC-DC 转换器电路)
- Portable AV equipment (digital camera, DVD Type) 便携式 AV 设备 (数码照相机, DVD 等)
- Cellular platform(handset Type) 移动通讯设备 (手机等)
- Memex(computer Type) 信息机器 (电脑等)

Product Identification 产品标识

MGFL    2012    F    2R2    M    I    -    LF  
 ①            ②            ③            ④            ⑤            ⑥            ⑦

- ① Series name 系列名称
- ② Dimension 产品尺寸 L×W: 【2012: 2.0mm×1.2mm】
- ③ Material code 材料代码
- ④ Inductance 电感量: 【R47=0.47 uH      2R2=2.2uH      100=10 uH】
- ⑤ Tolerance of Inductance 电感量公差: 【 M: ±20%】
- ⑥ Packing Style: 【 T: Taping 编带盘装      B: Bulk 散装】
- ⑦ Lead free products 无铅产品

Shapes And Dimensions 外形及尺寸示意图



| Type<br>型号  | Dimensions (mm) [inch]  |                         |                         |                         |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
|             | L长                      | W宽                      | T高                      | a1, a2                  |
| 1608 [0603] | 1.60±0.15 [0.063±0.006] | 0.80±0.15 [0.031±0.006] | 0.80±0.15 [0.031±0.006] | 0.30±0.20 [0.012±0.008] |
| 2012 [0805] | 2.00±0.20 [0.079±0.008] | 1.25±0.20 [0.049±0.008] | 0.80±0.20 [0.031±0.008] | 0.50±0.30 [0.02±0.012]  |
| 2016[0806]  | 2.00±0.20 [0.079±0.008] | 1.60±0.20 [0.063±0.008] | 0.80±0.20[0.031±0.008]  | 0.50±0.30 [0.02±0.012]  |
| 2520[1008]  | 2.50±0.20[0.098±0.008]  | 2.00±0.20[0.079±0.008]  | 0.85±0.15[0.03±0.006]   | 0.50±0.30[0.02±0.012]   |
| 3216 [1206] | 3.20±0.20 [0.126±0.008] | 1.60±0.20 [0.063±0.008] | 1.10±0.30 [0.043±0.012] | 0.50±0.30 [0.02±0.012]  |
| 3225[1210]  | 3.20±0.20[0.126±0.008]  | 2.50±0.20[0.098±0.008]  | 1.25±0.20[0.049±0.008]  | 0.70±0.30[0.028±0.012]  |

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Multilayer Chip Ferrite Large Current Inductor (叠层片式铁氧体大电流电感 MGFL 系列)

Electrical Characteristics 电气性能

MGFL 1608 (0603) Series

| Part No.      | L (uH)<br>±20% | LTest Freq.<br>(MHz) | SRF(MHz)<br>/min | RDC(Ω)<br>±30% | Ir(mA)/max |
|---------------|----------------|----------------------|------------------|----------------|------------|
| MGFL1608F1R0□ | 1.0            | 1                    | 125              | 0.18           | 1000       |
| MGFL1608F1R5□ | 1.5            | 1                    | 109              | 0.22           | 800        |
| MGFL1608F2R2□ | 2.2            | 1                    | 90               | 0.30           | 700        |
| MGFL1608F3R3□ | 3.3            | 1                    | 70               | 0.40           | 600        |
| MGFL1608F4R7□ | 4.7            | 1                    | 50               | 0.50           | 500        |
| MGFL1608F6R8□ | 6.8            | 1                    | 40               | 0.53           | 400        |
| MGFL1608F100□ | 10.0           | 1                    | 33               | 0.55           | 400        |
| MGFL1608F150□ | 15.0           | 1                    | 20               | 0.9            | 220        |
| MGFL1608F220□ | 22.0           | 1                    | 15               | 1.0            | 200        |
| MGFL1608C1R0□ | 1.0            | 1                    | 125              | 0.30           | 600        |
| MGFL1608C1R5□ | 1.5            | 1                    | 109              | 0.35           | 550        |
| MGFL1608C2R2□ | 2.2            | 1                    | 90               | 0.45           | 500        |
| MGFL1608C3R3□ | 3.3            | 1                    | 70               | 0.65           | 400        |
| MGFL1608C4R7□ | 4.7            | 1                    | 50               | 1.0            | 300        |

MGFL 2012 (0805) Series

| Part No.      | L (uH)<br>±20% | LTest Freq.<br>(MHz) | SRF(MHz)<br>/min | RDC(Ω)<br>±30% | Ir(mA)/max |
|---------------|----------------|----------------------|------------------|----------------|------------|
| MGFL2012F1R0□ | 1.0            | 1                    | 75               | 0.15           | 1400       |
| MGFL2012F1R5□ | 1.5            | 1                    | 60               | 0.16           | 1300       |
| MGFL2012F2R2□ | 2.2            | 1                    | 50               | 0.2            | 1200       |
| MGFL2012F3R3□ | 3.3            | 1                    | 41               | 0.22           | 1100       |
| MGFL2012F4R7□ | 4.7            | 1                    | 35               | 0.25           | 1000       |
| MGFL2012F6R8□ | 6.8            | 1                    | 29               | 0.27           | 550        |
| MGFL2012F100□ | 10.0           | 1                    | 24               | 0.32           | 500        |
| MGFL2012F150□ | 15.0           | 1                    | 19               | 0.5            | 400        |
| MGFL2012F220□ | 22.0           | 1                    | 18               | 0.7            | 300        |
| MGFL2012C1R0□ | 1.0            | 1                    | 75               | 0.18           | 1000       |
| MGFL2012C1R5□ | 1.5            | 1                    | 60               | 0.19           | 900        |

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Multilayer Chip Ferrite Large Current Inductor (叠层片式铁氧体大电流电感 MGFL 系列)

|               |     |   |    |      |      |
|---------------|-----|---|----|------|------|
| MGFL2012C2R2□ | 2.2 | 1 | 50 | 0.22 | 800  |
| MGFL2012C3R3□ | 3.3 | 1 | 41 | 0.25 | 600  |
| MGFL2012C4R7□ | 4.7 | 1 | 35 | 0.35 | 500  |
| MGFL2012U1R0□ | 1.0 | 1 | 60 | 0.2  | 1400 |
| MGFL2012U1R5□ | 1.5 | 1 | 50 | 0.25 | 1300 |
| MGFL2012U2R2□ | 2.2 | 1 | 40 | 0.3  | 1200 |
| MGFL2012U3R3□ | 3.3 | 1 | 30 | 0.4  | 1100 |
| MGFL2012U4R7□ | 4.7 | 1 | 20 | 0.5  | 1000 |

MGFL 2016 (0806) Series

| Part No.      | L (uH)<br>±20% | LTest Freq.<br>(MHz) | SRF(MHz)<br>/min | RDC(Ω)<br>±30% | Ir(mA)/max |
|---------------|----------------|----------------------|------------------|----------------|------------|
| MGFL2016F1R0□ | 1.0            | 1                    | 60               | 0.11           | 1400       |
| MGFL2016F1R5□ | 1.5            | 1                    | 50               | 0.15           | 1200       |
| MGFL2016F2R2□ | 2.2            | 1                    | 40               | 0.20           | 1200       |
| MGFL2016F3R3□ | 3.3            | 1                    | 30               | 0.30           | 1200       |
| MGFL2016F4R7□ | 4.7            | 1                    | 20               | 0.35           | 1100       |
| MGFL2016C1R0□ | 1.0            | 1                    | 60               | 0.10           | 1200       |
| MGFL2016C1R5□ | 1.5            | 1                    | 50               | 0.13           | 1000       |
| MGFL2016C2R2□ | 2.2            | 1                    | 40               | 0.15           | 900        |
| MGFL2016C3R3□ | 3.3            | 1                    | 30               | 0.20           | 800        |
| MGFL2016C4R7□ | 4.7            | 1                    | 20               | 0.30           | 700        |
| MGFL2016U1R0□ | 1.0            | 1                    | 55               | 0.18           | 1400       |
| MGFL2016U1R5□ | 1.5            | 1                    | 45               | 0.23           | 1200       |
| MGFL2016U2R2□ | 2.2            | 1                    | 35               | 0.28           | 1200       |
| MGFL2016U3R3□ | 3.3            | 1                    | 25               | 0.35           | 1200       |
| MGFL2016U4R7□ | 4.7            | 1                    | 15               | 0.45           | 1100       |

MGFL 2520 (1008) Series

| Part No.      | L (uH)<br>±20% | LTest Freq.<br>(MHz) | SRF(MHz)<br>/min | RDC(Ω)<br>±30% | Ir(mA)/max |
|---------------|----------------|----------------------|------------------|----------------|------------|
| MGFL2520F1R0□ | 1.0            | 1                    | 60               | 0.15           | 1600       |
| MGFL2520F1R5□ | 1.5            | 1                    | 50               | 0.18           | 1500       |
| MGFL2520F2R2□ | 2.2            | 1                    | 40               | 0.25           | 1300       |
| MGFL2520F3R3□ | 3.3            | 1                    | 30               | 0.30           | 1200       |
| MGFL2520F4R7□ | 4.7            | 1                    | 20               | 0.32           | 1100       |

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Multilayer Chip Ferrite Large Current Inductor (叠层片式铁氧体大电流电感 MGFL 系列)

|               |     |   |    |      |      |
|---------------|-----|---|----|------|------|
| MGFL2520C1R0□ | 1.0 | 1 | 60 | 0.11 | 1100 |
| MGFL2520C1R5□ | 1.5 | 1 | 50 | 0.13 | 1000 |
| MGFL2520C2R2□ | 2.2 | 1 | 40 | 0.15 | 950  |
| MGFL2520C3R3□ | 3.3 | 1 | 30 | 0.18 | 900  |
| MGFL2520C4R7□ | 4.7 | 1 | 20 | 0.25 | 850  |
| MGFL2520U1R0□ | 1.0 | 1 | 50 | 0.18 | 1700 |
| MGFL2520U1R5□ | 1.5 | 1 | 40 | 0.20 | 1600 |
| MGFL2520U2R2□ | 2.2 | 1 | 30 | 0.23 | 1500 |
| MGFL2520U3R3□ | 3.3 | 1 | 25 | 0.30 | 1300 |
| MGFL2520U4R7□ | 4.7 | 1 | 15 | 0.35 | 1200 |

MGFL 3216 (1206) Series

| Part No.      | L (uH)<br>±20% | LTest Freq.<br>(MHz) | SRF(MHz)<br>/min | RDC(Ω)<br>±30% | I <sub>r</sub> (mA)/max |
|---------------|----------------|----------------------|------------------|----------------|-------------------------|
| MGFL3216F1R0□ | 1.0            | 1                    | 90               | 0.10           | 1600                    |
| MGFL3216F1R5□ | 1.5            | 1                    | 75               | 0.12           | 1500                    |
| MGFL3216F2R2□ | 2.2            | 1                    | 58               | 0.15           | 1300                    |
| MGFL3216F3R3□ | 3.3            | 1                    | 49               | 0.20           | 1200                    |
| MGFL3216F4R7□ | 4.7            | 1                    | 41               | 0.32           | 980                     |
| MGFL3216F6R8□ | 6.8            | 1                    | 34               | 0.41           | 830                     |
| MGFL3216F100□ | 10.0           | 1                    | 28               | 0.50           | 670                     |
| MGFL3216C1R0□ | 1.0            | 1                    | 90               | 0.12           | 1400                    |
| MGFL3216C1R5□ | 1.5            | 1                    | 75               | 0.15           | 1300                    |
| MGFL3216C2R2□ | 2.2            | 1                    | 58               | 0.20           | 1200                    |
| MGFL3216C3R3□ | 3.3            | 1                    | 49               | 0.25           | 1100                    |
| MGFL3216C4R7□ | 4.7            | 1                    | 41               | 0.45           | 850                     |

MGFL 3225 (1210) Series

| Part No.      | L (uH)<br>±20% | LTest Freq.<br>(MHz) | SRF(MHz)<br>/min | RDC(Ω)<br>±30% | I <sub>r</sub> (mA)/max |
|---------------|----------------|----------------------|------------------|----------------|-------------------------|
| MGFL3225F1R0□ | 1.0            | 1                    | 90               | 0.08           | 1800                    |
| MGFL3225F1R5□ | 1.5            | 1                    | 80               | 0.10           | 1600                    |
| MGFL3225F2R2□ | 2.2            | 1                    | 58               | 0.15           | 1400                    |
| MGFL3225F3R3□ | 3.3            | 1                    | 49               | 0.18           | 1300                    |

Multilayer Chip Ferrite Large Current Inductor (叠层片式铁氧体大电流电感 MGFL 系列)

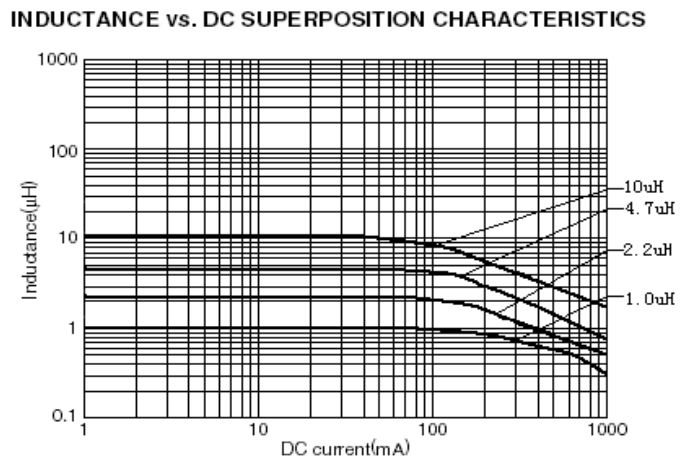
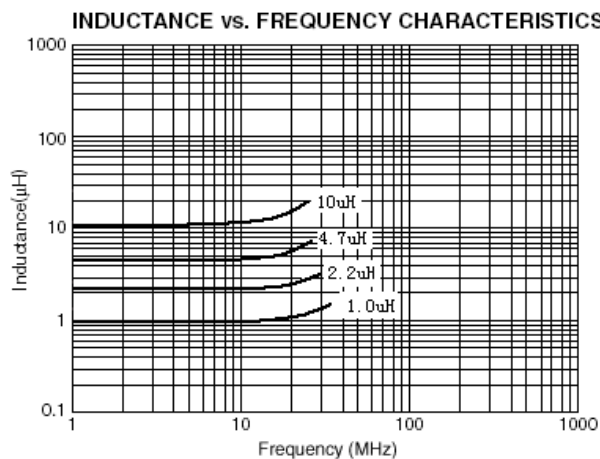
|               |      |   |    |      |      |
|---------------|------|---|----|------|------|
| MGFL3225F4R7□ | 4.7  | 1 | 41 | 0.22 | 1000 |
| MGFL3225F6R8□ | 6.8  | 1 | 34 | 0.30 | 850  |
| MGFL3225F100□ | 10.0 | 1 | 28 | 0.42 | 700  |
| MGFL3225C1R0□ | 1.0  | 1 | 90 | 0.10 | 1600 |
| MGFL3225C1R5□ | 1.5  | 1 | 80 | 0.12 | 1400 |
| MGFL3225C2R2□ | 2.2  | 1 | 58 | 0.18 | 1300 |
| MGFL3225C3R3□ | 3.3  | 1 | 49 | 0.21 | 1200 |
| MGFL3225C4R7□ | 4.7  | 1 | 41 | 0.30 | 900  |

备注：额定电流 Rated Current

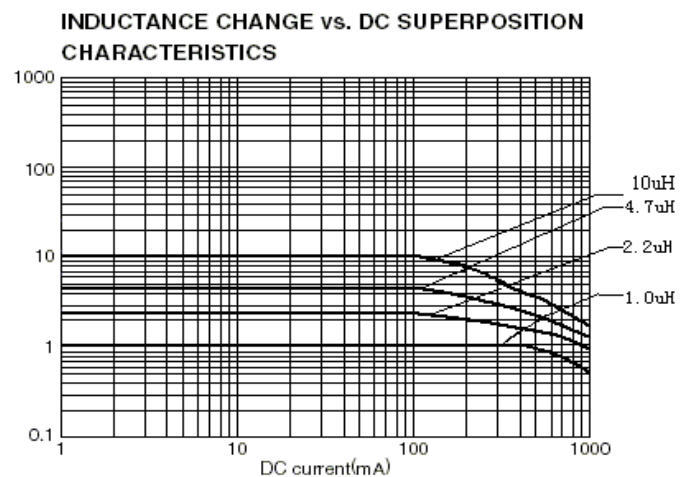
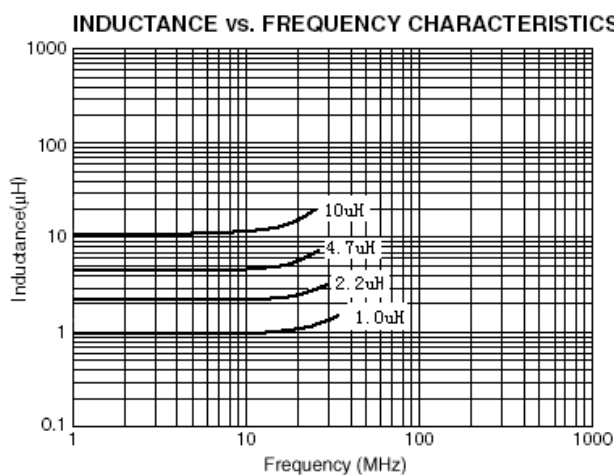
基于产品表面温度上升的标准值：产品表面温度达到+40°C时的电流值；Rated current based on increasing product temperature: Current when temperature of the product reaches +40°C

Characteristic curve 特性曲线

MGFL 1608F(0603) Series

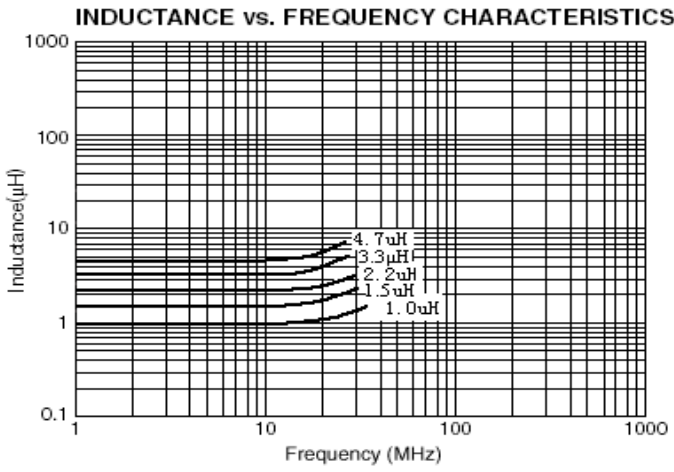


MGFL 2012F(0805) Series



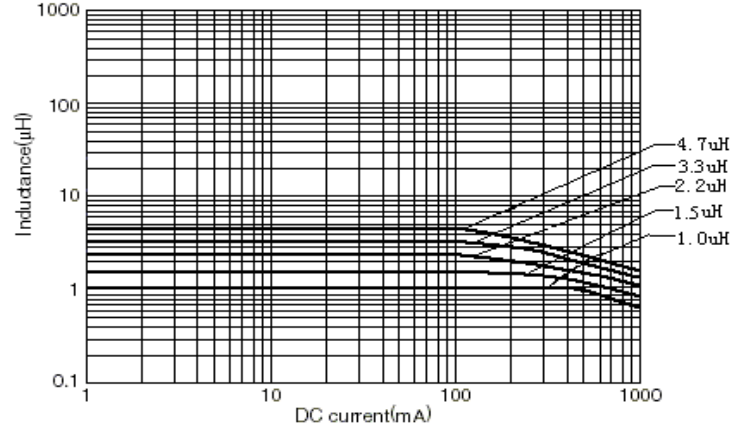
Multilayer Chip Ferrite Large Current Inductor (叠层片式铁氧体大电流电感 MGFL 系列)

MGFL2012U(0805) Series

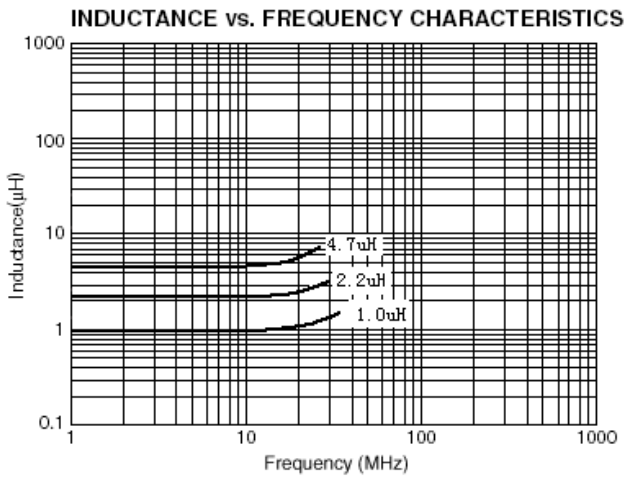


**MGFL2012 (0805) SERIES**

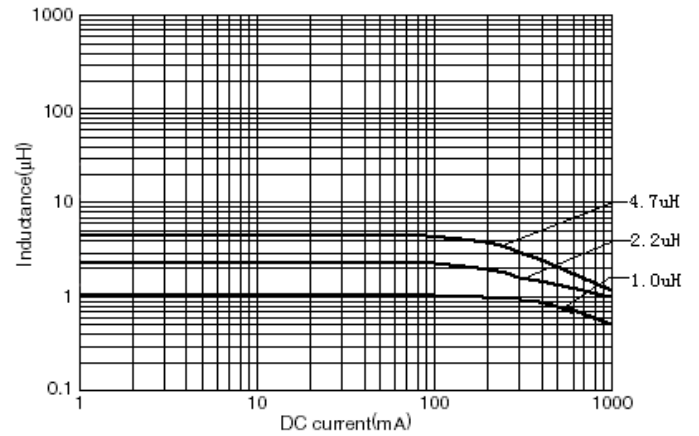
**INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS**



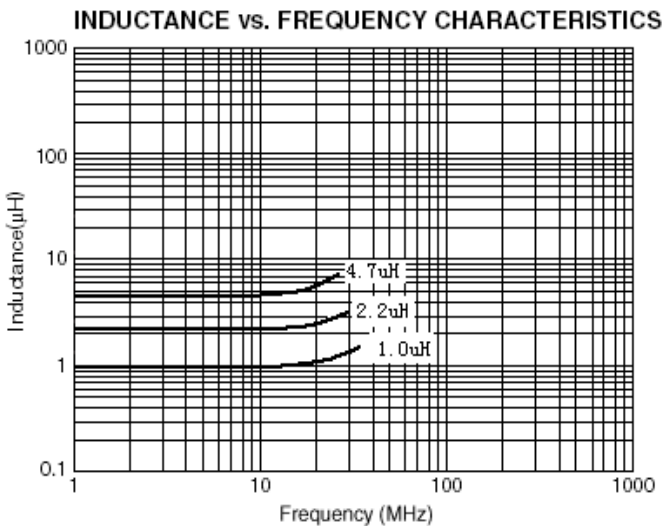
MGFL 2016F(0806) Series



**INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS**

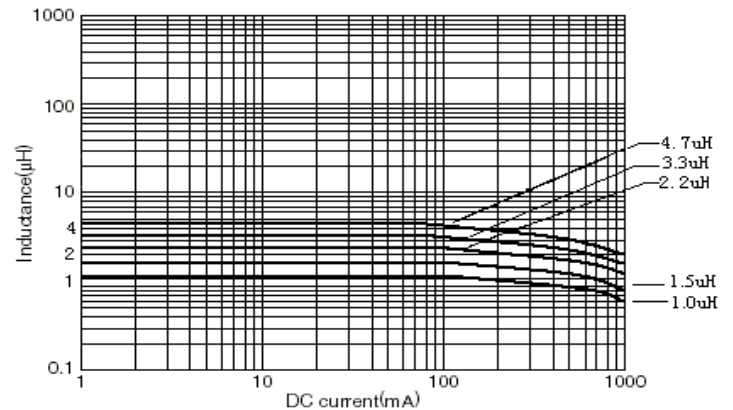


MGFL2016U(0806) Series



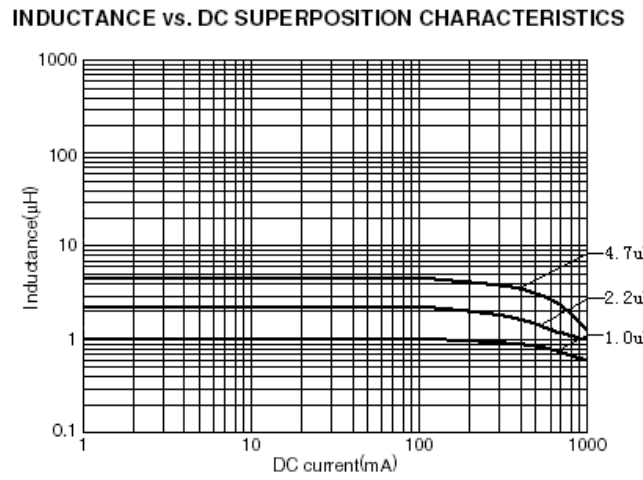
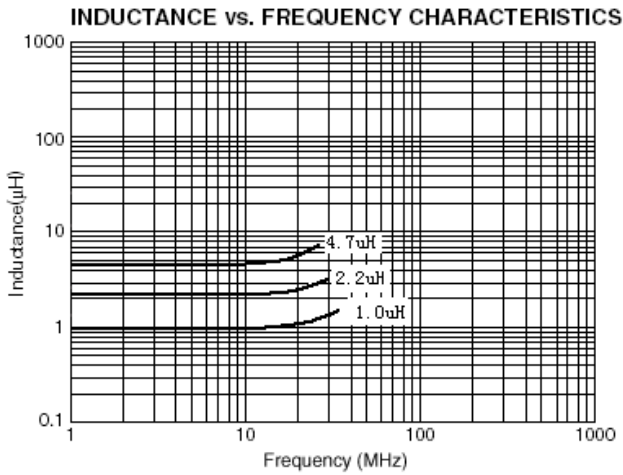
**MGFL2016(0806) SERIES**

**INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS**

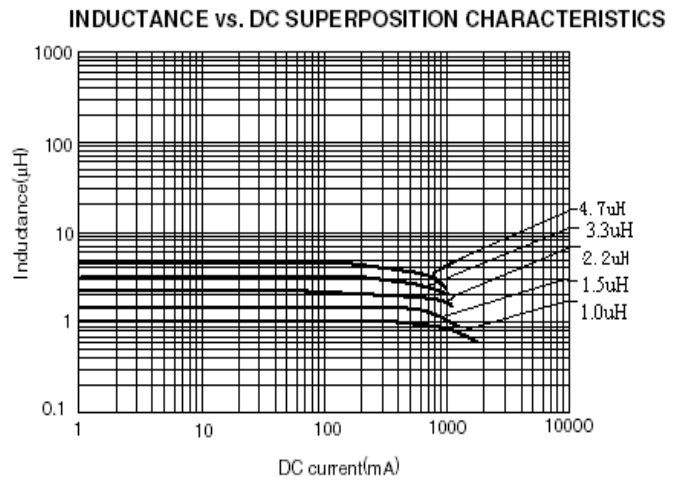
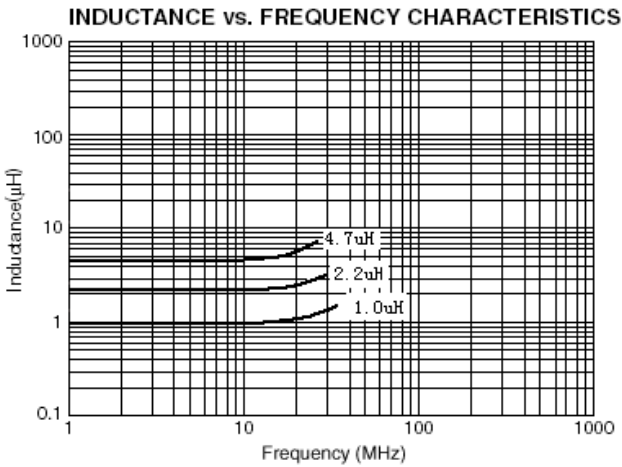


Multilayer Chip Ferrite Large Current Inductor (叠层片式铁氧体大电流电感 MGFL 系列)

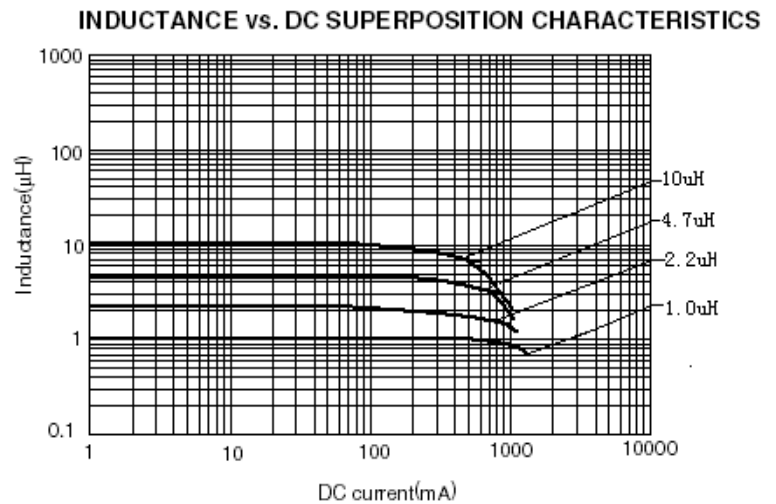
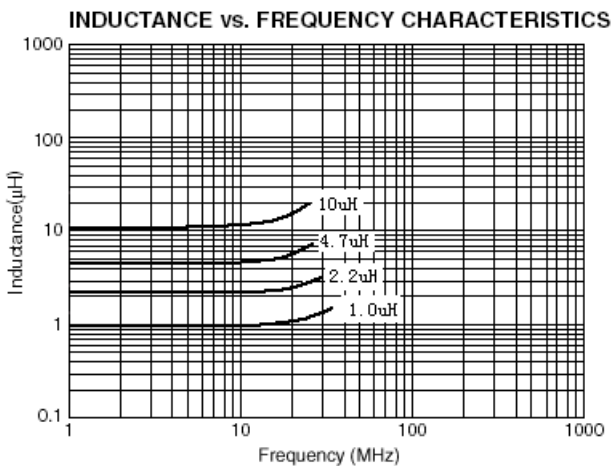
MGFL 2520F(1008) Series



MGFL2520U(1008) Series



MGFL 3216F(1206) Series

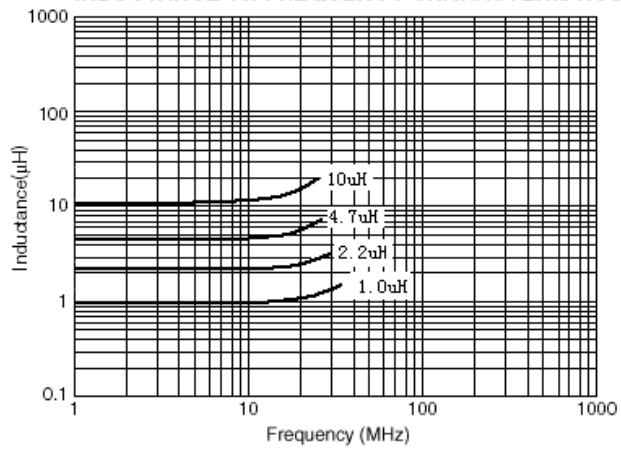


由于产品价格波动较大，如有需要，请及时联系麦捷科技以获得最新、最准的产品资料。

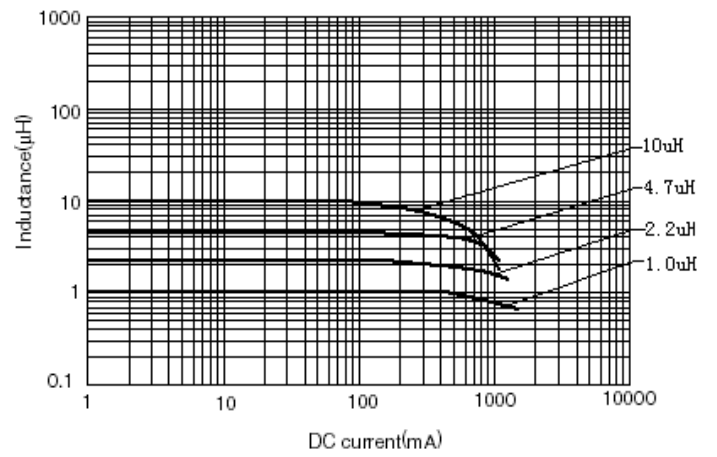
Multilayer Chip Ferrite Large Current Inductor (叠层片式铁氧体大电流电感 MGFL 系列)

MGFL 3225F(1210) Series

INDUCTANCE vs. FREQUENCY CHARACTERISTICS



INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS





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