

Multilayer Chip Ceramic Inductor 叠层片式陶瓷电感

FEATURES 特点

- Monolithic construction yields high reliability
独石结构, 高可靠性
- High self-resonant frequency 高自谐振频率
- Excellent solderability and heat resistance for either flow or reflow soldering 良好的可焊性和耐焊性



APPLICATIONS 应用

- High frequency circuits of telecommunication. 通讯产品的射频模块
- Mobile phones such as GSM, CDMA, PDC, etc. GSM、CDMA、PDC手机
- "Bluetooth" 蓝牙模块
- Other High frequency circuits in general 其它高频线路应用中

Product Identification 产品标识

MGCI 1608 H 10N J I - LF
① ② ③ ④ ⑤ ⑥ ⑦

① Series name 系列名称

② Dimension 产品尺寸 L×W: 【1608: 1.6mm×0.8mm】

③ Material code 材料代码

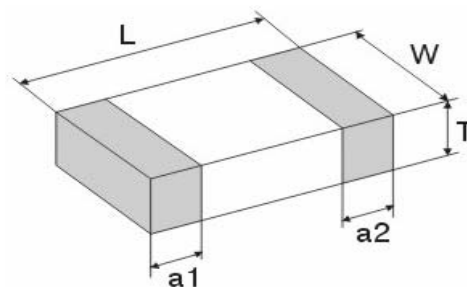
④ Inductance 电感量: 【3N3=3.3 nH 10N=10 nH R10=100 nH】

⑤ Tolerance of Inductance 电感量公差: 【S:±0.3nH D:±0.5nH J: ±5% K: ±10%】

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 型号 | Dimensions (mm) [inch] | | | |
|-------------|-------------------------|-------------------------|---|-------------------------|
| | L长 | W宽 | T高 | a1, a2 |
| 0603 [0201] | 0.60±0.05 [0.024±0.002] | 0.30±0.05 [0.012±0.002] | 0.30±0.05 [0.012±0.002] | 0.10±0.20 [0.004~0.008] |
| 1005 [0402] | 1.00±0.15 [0.04±0.006] | 0.50±0.15 [0.02±0.006] | 0.50±0.15 [0.02±0.006] | 0.25±0.10 [0.01±0.004] |
| 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] | 0.85±0.30 [0.033±0.012] 1.00±0.30 [0.04±0.012] | 0.50±0.30 [0.02±0.012] |

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Electrical Characteristics 电气性能

MGCI 0603 (0201) Series

| Part No. | L(nH) | L Test Freq. (MHz) | Q Min | | | SRF(MHz) Min. | DCR(Ω) Max. | I _r (mA) (max) |
|----------------|-------|-----------------------|---------|---------|----------|------------------|----------------|------------------------------|
| | | | 100 MHz | 800 MHz | 1800 MHz | | | |
| MGCI0603H1N0 □ | 1.0 | 100 | 4.0 | 12.0 | 16.0 | 20000 | 0.15 | 170 |
| MGCI0603H1N2 □ | 1.2 | 100 | 4.0 | 12.0 | 17.0 | 20000 | 0.15 | 170 |
| MGCI0603H1N5 □ | 1.5 | 100 | 4.1 | 11.8 | 17.0 | 20000 | 0.15 | 170 |
| MGCI0603H1N8 □ | 1.8 | 100 | 4.1 | 12.0 | 18.0 | 20000 | 0.20 | 170 |
| MGCI0603H2N2 □ | 2.2 | 100 | 4.2 | 11.8 | 18.5 | 20000 | 0.20 | 150 |
| MGCI0603H2N7 □ | 2.7 | 100 | 3.9 | 10.3 | 16.2 | 20000 | 0.25 | 150 |
| MGCI0603H3N3 □ | 3.3 | 100 | 4.3 | 11.5 | 18.2 | 20000 | 0.30 | 150 |
| MGCI0603H3N9 □ | 3.9 | 100 | 5.5 | 12.1 | 19.3 | 1800 | 0.35 | 150 |
| MGCI0603H4N7 □ | 4.7 | 100 | 5.6 | 12.0 | 19.0 | 9600 | 0.40 | 150 |
| MGCI0603H5N6 □ | 5.6 | 100 | 4.7 | 12.5 | 20.0 | 9100 | 0.45 | 150 |
| MGC0603H6N8 □ | 6.8 | 100 | 4.7 | 12.5 | 20.0 | 8400 | 0.50 | 150 |
| MGCI0603H8N2 □ | 8.2 | 100 | 4.4 | 10.7 | 16.0 | 7600 | 0.60 | 150 |
| MGCI0603H10N □ | 10 | 100 | 5.0 | 13.0 | 20.0 | 6700 | 0.70 | 150 |

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MGCI 1005 (0402) Series

| Part No. | L(nH) | L Test Freq. (MHz) | Q Min | | | SRF(MHz) Min. | DCR(Ω) Max. | Ir(mA) (max) |
|---------------|-------|-----------------------|---------|---------|----------|------------------|-------------------------|-----------------|
| | | | 100 MHz | 800 MHz | 1800 MHz | | | |
| MGCI1005T1N0□ | 1.0 | 100 | 9 | 44 | 50 | 10000 | 0.08 | 400 |
| MGCI1005T1N2□ | 1.2 | 100 | 9 | 44 | 50 | 10000 | 0.08 | 400 |
| MGCI1005T1N5□ | 1.5 | 100 | 9 | 43 | 48 | 6000 | 0.10 | 400 |
| MGCI1005T1N8□ | 1.8 | 100 | 9 | 35 | 45 | 6000 | 0.12 | 400 |
| MGCI1005T2N2□ | 2.2 | 100 | 9 | 30 | 43 | 6000 | 0.12 | 400 |
| MGCI1005T2N7□ | 2.7 | 100 | 9 | 30 | 40 | 6000 | 0.13 | 400 |
| MGCI1005T3N3□ | 3.3 | 100 | 9 | 30 | 40 | 6000 | 0.15 | 400 |
| MGCI1005T3N9□ | 3.9 | 100 | 9 | 30 | 41 | 4500 | 0.21 | 400 |
| MGCI1005T4N7□ | 4.7 | 100 | 9 | 30 | 36 | 4500 | 0.21 | 300 |
| MGCI1005T5N6□ | 5.6 | 100 | 9 | 29 | 36 | 4000 | 0.23 | 300 |
| MGCI1005T6N8□ | 6.8 | 100 | 9 | 29 | 35 | 4000 | 0.25 | 300 |
| MGCI1005T8N2□ | 8.2 | 100 | 9 | 29 | 35 | 3600 | 0.35 | 300 |
| MGCI1005T10N□ | 10 | 100 | 9 | 28 | 35 | 3200 | 0.42 | 300 |
| MGCI1005T12N□ | 12 | 100 | 9 | 28 | 28 | 2800 | 0.50 | 300 |
| MGCI1005T15N□ | 15 | 100 | 9 | 28 | 24 | 2500 | 0.60 | 300 |
| MGCI1005T18N□ | 18 | 100 | 9 | 27 | 20 | 2200 | 0.80 | 300 |
| MGCI1005T22N□ | 22 | 100 | 9 | 26 | 12 | 1900 | 0.85 | 300 |
| MGCI1005T27N□ | 27 | 100 | 9 | 23 | | 1600 | 1.00 | 300 |
| MGCI1005T33N□ | 33 | 100 | 9 | 22 | | 1300 | 1.00 | 200 |
| MGCI1005T39N□ | 39 | 100 | 9 | 21 | | 1200 | 1.30 | 200 |
| MGCI1005T47N□ | 47 | 100 | 9 | 20 | | 1000 | 1.50 | 200 |
| MGCI1005T56N□ | 56 | 100 | 9 | 17 | | 750 | 1.80 | 200 |
| MGCI1005T68N□ | 68 | 100 | 9 | 15 | | 750 | 1.95 | 180 |
| MGCI1005T82N□ | 82 | 100 | 9 | | | 600 | 2.10 | 150 |
| MGCI1005TR10□ | 100 | 100 | 9 | | | 600 | 2.50 | 150 |
| MGCI1005TR12□ | 120 | 100 | 9 | | | 600 | 2.80 | 150 |

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MGCI 1608 (0603) Series

| Part No. | L (nH) | Q /min | L,Q Test Freq. (MHz) | SRF(MHz) /min | RDC(Ω) /max | Ir(mA) /max |
|---------------|--------|--------|-------------------------|------------------|-------------------------|----------------|
| MGCI1608H1N0□ | 1.0 | 8 | 100 | >10000 | 0.05 | 500 |
| MGCI1608H1N2□ | 1.2 | 8 | 100 | >10000 | 0.05 | 500 |
| MGCI1608H1N5□ | 1.5 | 8 | 100 | >10000 | 0.10 | 500 |
| MGCI1608H1N8□ | 1.8 | 8 | 100 | >10000 | 0.10 | 500 |
| MGCI1608H2N2□ | 2.2 | 8 | 100 | 10000 | 0.10 | 500 |
| MGCI1608H2N7□ | 2.7 | 10 | 100 | 9000 | 0.10 | 500 |
| MGCI1608H3N3□ | 3.3 | 10 | 100 | 8000 | 0.12 | 500 |
| MGCI1608H3N9□ | 3.9 | 10 | 100 | 7000 | 0.14 | 500 |
| MGCI1608H4N7□ | 4.7 | 10 | 100 | 5500 | 0.16 | 500 |
| MGCI1608H5N6□ | 5.6 | 10 | 100 | 4500 | 0.18 | 500 |
| MGCI1608H6N8□ | 6.8 | 10 | 100 | 4000 | 0.22 | 500 |
| MGCI1608H8N2□ | 8.2 | 10 | 100 | 3600 | 0.24 | 500 |
| MGCI1608H10N□ | 10.0 | 12 | 100 | 3400 | 0.26 | 300 |
| MGCI1608H12N□ | 12.0 | 12 | 100 | 2800 | 0.30 | 300 |
| MGCI1608H15N□ | 15.0 | 12 | 100 | 2500 | 0.32 | 300 |
| MGCI1608H18N□ | 18.0 | 12 | 100 | 2100 | 0.35 | 300 |
| MGCI1608H22N□ | 22.0 | 12 | 100 | 1700 | 0.40 | 300 |
| MGCI1608H27N□ | 27.0 | 12 | 100 | 1500 | 0.45 | 300 |
| MGCI1608H33N□ | 33.0 | 12 | 100 | 1300 | 0.55 | 300 |
| MGCI1608H39N□ | 39.0 | 12 | 100 | 1100 | 0.60 | 300 |
| MGCI1608H47N□ | 47.0 | 12 | 100 | 1000 | 0.70 | 300 |
| MGCI1608H56N□ | 56.0 | 12 | 100 | 900 | 0.75 | 300 |
| MGCI1608H68N□ | 68.0 | 12 | 100 | 700 | 0.85 | 300 |
| MGCI1608H82N□ | 82.0 | 12 | 100 | 600 | 0.95 | 300 |
| MGCI1608HR10□ | 100.0 | 12 | 100 | 600 | 1.00 | 300 |
| MGCI1608HR12□ | 120.0 | 8 | 50 | 500 | 1.30 | 300 |
| MGCI1608HR15□ | 150.0 | 8 | 50 | 500 | 1.50 | 300 |
| MGCI1608HR18□ | 180.0 | 8 | 50 | 400 | 1.80 | 300 |
| MGCI1608HR22□ | 220.0 | 8 | 50 | 400 | 2.10 | 300 |
| MGCI1608HR27□ | 270.0 | 8 | 50 | 350 | 2.40 | 300 |

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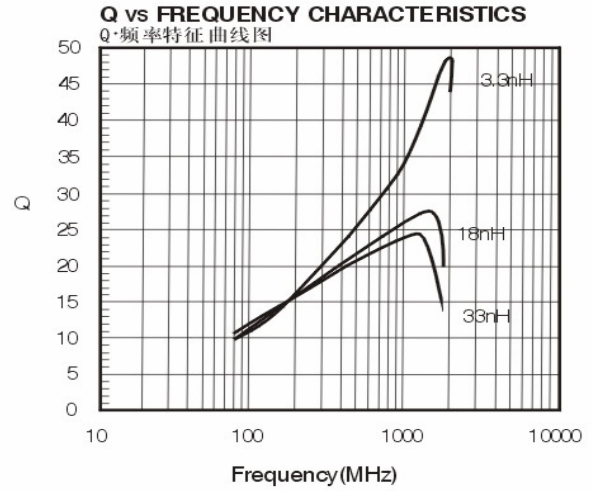
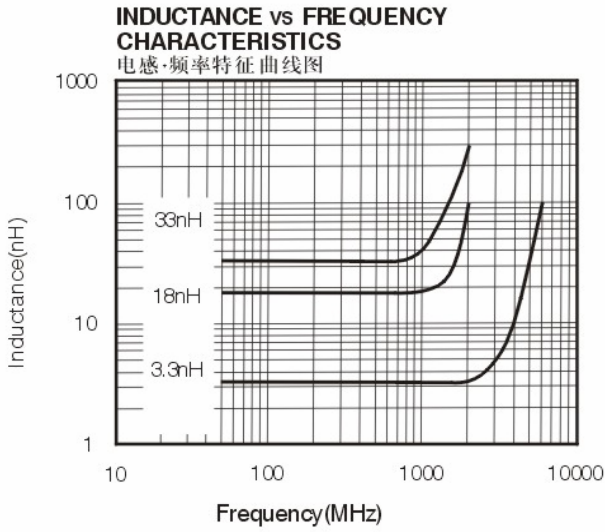
MGCI 2012 (0805) Series

| Part No. | L (nH) | Q /min | L,Q Test Freq. (MHz) | SRF(MHz) /min | RDC(Ω) /max | Ir(mA) /max |
|---------------|--------|--------|-------------------------|------------------|----------------|----------------|
| MGCI2012H1N5□ | 1.5 | 10 | 100 | 6000 | 0.10 | 600 |
| MGCI2012H1N8□ | 1.8 | 10 | 100 | 6000 | 0.10 | 600 |
| MGCI2012H2N2□ | 2.2 | 10 | 100 | 6000 | 0.10 | 600 |
| MGCI2012H2N7□ | 2.7 | 12 | 100 | 6000 | 0.10 | 600 |
| MGCI2012H3N3□ | 3.3 | 12 | 100 | 6000 | 0.13 | 600 |
| MGCI2012H3N9□ | 3.9 | 12 | 100 | 5000 | 0.15 | 600 |
| MGCI2012H4N7□ | 4.7 | 12 | 100 | 4000 | 0.20 | 400 |
| MGCI2012H5N6□ | 5.6 | 15 | 100 | 3500 | 0.23 | 400 |
| MGCI2012H6N8□ | 6.8 | 15 | 100 | 2800 | 0.25 | 400 |
| MGCI2012H8N2□ | 8.2 | 15 | 100 | 2400 | 0.28 | 400 |
| MGCI2012H10N□ | 10 | 15 | 100 | 2100 | 0.30 | 300 |
| MGCI2012H12N□ | 12 | 15 | 100 | 1900 | 0.35 | 300 |
| MGCI2012H15N□ | 15 | 15 | 100 | 1800 | 0.40 | 300 |
| MGCI2012H18N□ | 18 | 15 | 100 | 1500 | 0.45 | 300 |
| MGCI2012H22N□ | 22 | 15 | 100 | 1400 | 0.50 | 300 |
| MGCI2012H27N□ | 27 | 15 | 100 | 1300 | 0.55 | 300 |
| MGCI2012H33N□ | 33 | 15 | 100 | 1200 | 0.60 | 300 |
| MGCI2012H39N□ | 39 | 15 | 100 | 1000 | 0.65 | 300 |
| MGCI2012H47N□ | 47 | 15 | 100 | 900 | 0.70 | 300 |
| MGCI2012H56N□ | 56 | 15 | 100 | 800 | 0.75 | 300 |
| MGCI2012H68N□ | 68 | 15 | 100 | 700 | 0.80 | 300 |
| MGCI2012H82N□ | 82 | 15 | 100 | 600 | 0.90 | 300 |
| MGCI2012HR10□ | 100 | 15 | 100 | 600 | 0.90 | 300 |
| MGCI2012HR12□ | 120 | 13 | 100 | 500 | 0.95 | 300 |
| MGCI2012HR15□ | 150 | 13 | 50 | 500 | 1.00 | 300 |
| MGCI2012HR18□ | 180 | 13 | 50 | 400 | 1.20 | 300 |
| MGCI2012HR22□ | 220 | 12 | 50 | 350 | 1.40 | 300 |
| MGCI2012HR27□ | 270 | 12 | 50 | 300 | 1.70 | 300 |
| MGCI2012HR33□ | 330 | 12 | 50 | 250 | 2.00 | 300 |
| MGCI2012HR39□ | 390 | 10 | 50 | 250 | 2.50 | 300 |
| MGCI2012HR47□ | 470 | 10 | 50 | 200 | 2.80 | 300 |

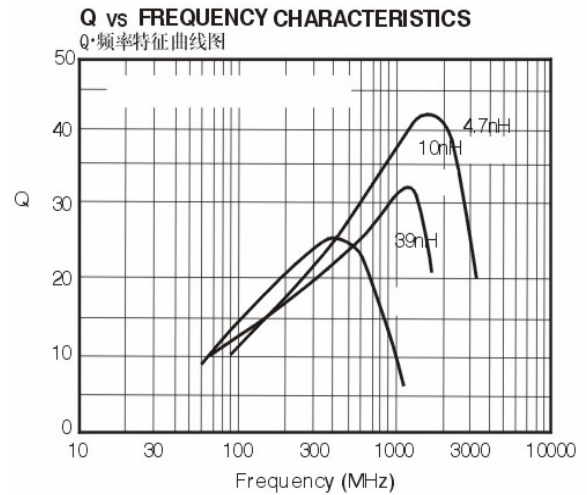
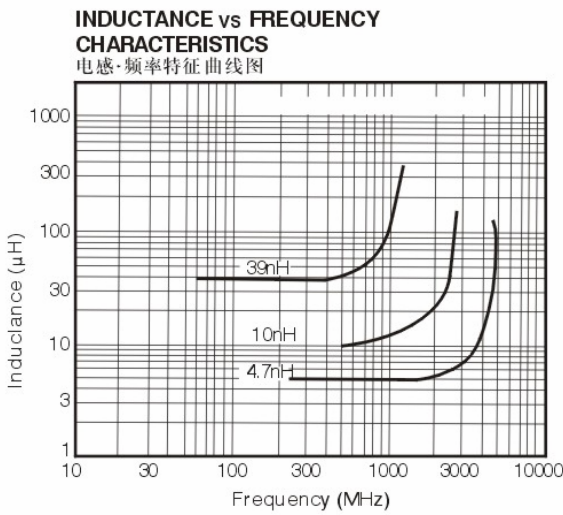
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Characteristic curve 特性曲线

MGCI 1005 (0402) Series



MGCI 1608 (0603) Series



MGCI 2012 (0805) Series

