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	T	-	LF
①	②	③	④	⑤	⑥		⑦

① MOTTO Series name 系列名称

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

③Material Code 材料代码

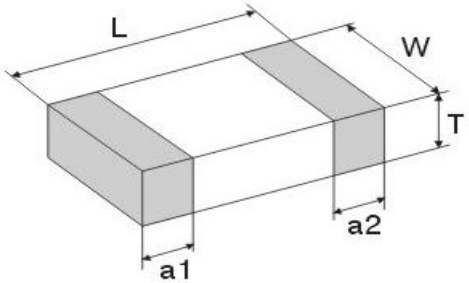
④Inductance 电感量：【3N3=3.3 nH 10N=10 nH R10=100 nH】

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

⑥Packing Style：【 T: Taping 编带盘装 B: Bulk 散装】

⑦ LeadFreeProducts 无铅产品

Shapesand 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±0.20 [0.033±0.008]	0.50±0.30 [0.02±0.012]

Electrical Characteristics 电气性能

MGCI 0603 (0201) Series

MOTTO 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			
MGCI0603H1N0 □	1.0	100	5.0	23	36	10000	0.10	600
MGCI0603H1N2 □	1.2	100	5.0	21	33	10000	0.15	550
MGCI0603H1N5 □	1.5	100	5.0	21	33	9000	0.20	550
MGCI0603H1N8 □	1.8	100	5.0	23	35	8500	0.20	500
MGCI0603H2N2 □	2.2	100	5.0	20	31	7500	0.20	500
MGCI0603H2N7 □	2.7	100	5.0	22	33	6500	0.30	450
MGCI0603H3N3 □	3.3	100	5.0	23	34	5800	0.30	300
MGCI0603H3N9 □	3.9	100	5.0	22	33	5800	0.40	300
MGCI0603H4N7 □	4.7	100	5.0	21	32	5200	0.45	300
MGCI0603H5N6 □	5.6	100	5.0	23	32	4200	0.50	250
MGC0603H6N8 □	6.8	100	5.0	21	30	4200	0.60	250
MGCI0603H8N2 □	8.2	100	5.0	20	28	3800	0.70	220
MGCI0603H10N □	10	100	5.0	21	27	3600	0.80	200
MGCI0603T12N□	12	100	6.0	20	24	3000	1.00	180
MGCI0603T15N□	15	100	6.0	21	26	3000	1.10	180
MGCI0603T18N□	18	100	6.0	18	21	2500	1.20	150
MGCI0603T22N□	22	100	6.0	17	18	2200	1.20	150
MGCI0603T27N□	27	100	6.0	17	15	2000	1.50	100
MGCI0603T33N□	33	100	6.0	17	12	1700	1.70	100
MGCI0603T39N□	39	100	6.0	15	3	1500	2.50	80
MGCI0603T47N□	47	100	6.0	14		1300	2.70	80
MGCI0603T56N□	56	100	6.0	13		1200	3.20	60

Multilayer Chip Ceramic Inductor 叠层片式陶瓷电感

MGCI 1005 (0402) Series

MOTTO Part No.	L(nH)	L Test Freq. (MHz)	Q Min			SRF(MHz) Min.	DCR(Ω) Max.	Ir(mA) (max)
			100 MHz	900 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
MGCI1005T2N4☐	2.4	100	9	30	43	6000	0.12	400
MGCI1005T2N7☐	2.7	100	9	30	40	6000	0.13	400
MGCI1005T3N0☐	3.0	100	9	30	40	6000	0.15	400
MGCI1005T3N3☐	3.3	100	9	30	40	6000	0.15	400
MGCI1005T3N9☐	3.9	100	9	30	41	4500	0.21	400
MGCI1005T4N3☐	4.3	100	9	30	36	4500	0.21	300
MGCI1005T4N7☐	4.7	100	9	29	38	4500	0.21	300
MGCI1005T5N1☐	5.1	100	9	28	36	4000	0.23	300
MGCI1005T5N6☐	5.6	100	9	25	32	4000	0.23	300
MGCI1005T6N2☐	6.2	100	9	25	32	4000	0.25	300
MGCI1005T6N8☐	6.8	100	9	25	33	4000	0.25	300
MGCI1005T7N5☐	7.5	100	9	25	32	3600	0.35	300
MGCI1005T8N2☐	8.2	100	9	25	32	3600	0.35	300
MGCI1005T9N1☐	9.1	100	9	25	31	3200	0.42	300
MGCI1005T10N☐	10	100	9	26	30	3200	0.42	300
MGCI1005T12N☐	12	100	9	26	29	2800	0.50	300
MGCI1005T15N☐	15	100	9	25	26	2500	0.60	300
MGCI1005T18N☐	18	100	9	23	24	2200	0.80	300
MGCI1005T22N☐	22	100	9	23	22	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
MGCI1005TR15☐	150	100	8			550	2.35	150
MGCI1005TR18☐	180	100	8			500	2.55	100
MGCI1005TR22☐	220	100	8			450	2.65	100
MGCI1005TR27☐	270	100	8			400	2.85	50
MGCI1005TR33☐	330	50	8			350	3.00	50

Multilayer Chip Ceramic Inductor 叠层片式陶瓷电感

MGCI 1608 (0603) Series

MOTTO 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
MGCI1608HR33☐	330	8	50	350	3.0	300

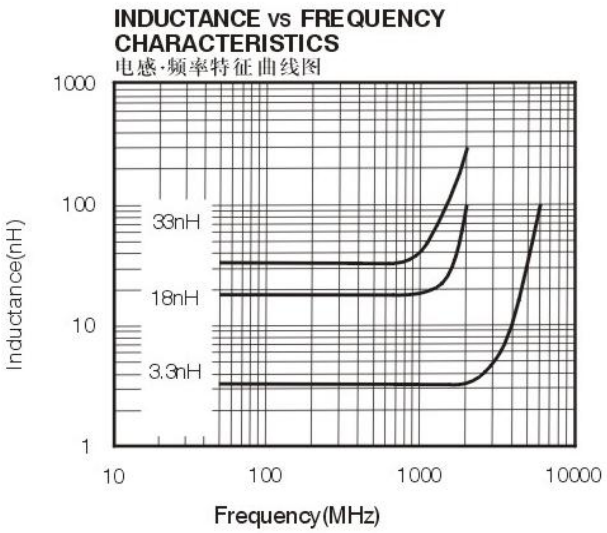
Multilayer Chip Ceramic Inductor 叠层片式陶瓷电感

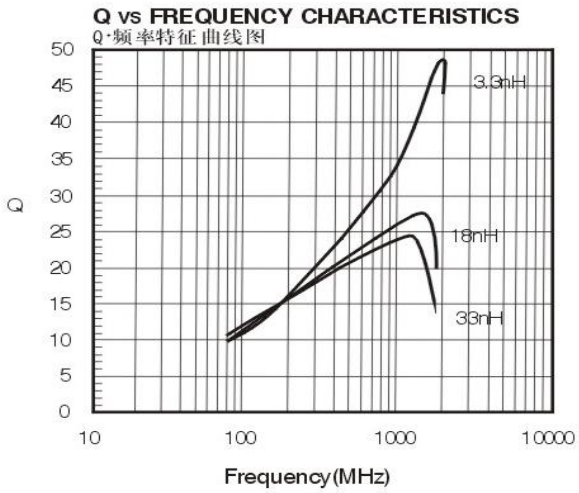
MGCI 2012 (0805) Series

MOTTO 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

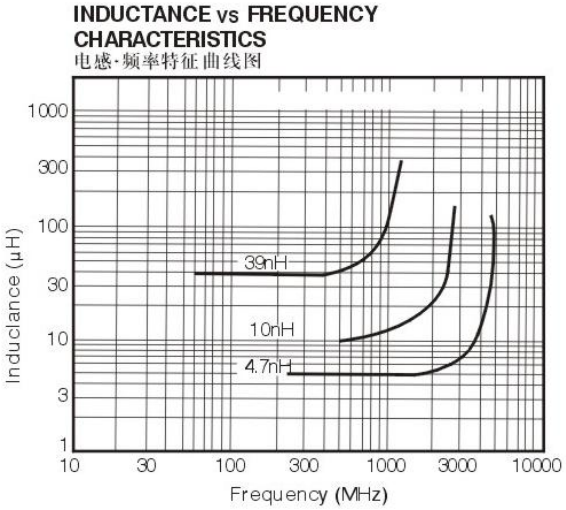
Characteristic Curve 特性曲线

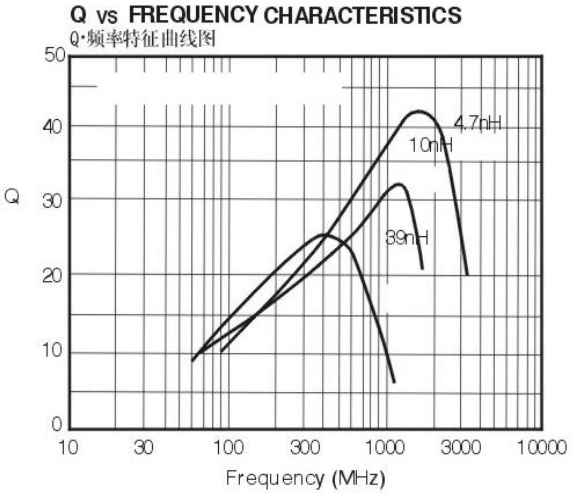
MGCI 1005 (0402) Series





MGCI 1608 (0603) Series





MGCI 2012 (0805) Series