

Data Sheet

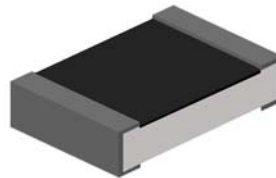
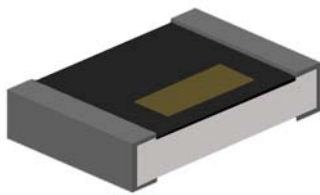
Customer :

Product Type : Thin Film Chip Inductor (Murata)

Part No. : AL-M series

Issued Date : 21-Jun-16

Document No AL-M Series REV.C5



RoHS Compliant

VIKING TECH CORPORATION
光頡科技股份有限公司

No.70, Guangfu N. Rad.,
Hsin Chu Industrial Park,
Hukou Hsiang, Hsin Chu Hsien,
303, Taiwan

TEL:886-3-5972931

FAX:886-3-5972935•886-3-5973494

E-mail:sales@viking.com.tw

VIKING TECH CORPORATION KAOHSIUNG BRANCH
光頡科技股份有限公司高雄分公司

No.248-3, Sin-Sheng Rd., Cian-Jhen Dist., Kaohsiung,
806, Taiwan

TEL:886-7-8217999

FAX:886-7-8228229

E-mail:sales@viking.com.tw

WUXI TMTEC CO., LTD.
無錫泰銘電子有限公司

No.1A,(Xixia Road),Machinery & industry Park,
National Hi-Tech Industries Development Zone of
Wuxi, Wuxi, Jiangsu Province, China

Zip Code:214028

TEL:86-510-85203339

FAX:86-510-85203667•86-510-85203977

E-mail:wuxisales@tmtec.com.tw

Produced by (QC)	Checked by (QC)	Approved by (QC)	Prepared by (Sales)	Accepted by (Customer)
21-Jun-16	21-Jun-16	21-Jun-16	21-Jun-16	
Chun	Ben Chang	Ben Chang		

Thin Film Chip Inductors (AL-M Series)

1. Scope

Viking's 0402 and 0201 series inductor is a photo lithographically etched single layer ceramic chip. Viking's design provides high SRF, excellent Q, and superior temperature stability. This highly stable inductor family is specifically designed for critical tolerance needs.

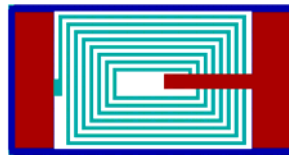
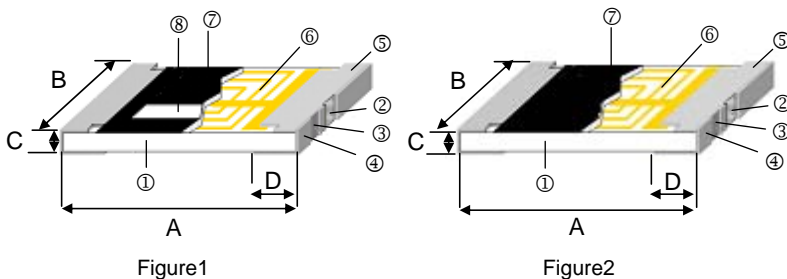
2. Features

- Photo lithographic single layer ceramic chip
- High SRF, excellent Q, superior temperature stability
- Tight tolerance of $\pm 1\%$ or $\pm 0.1\text{nH}$
- Self resonant frequency controlled within 10%
- Stable inductance in high frequency circuit
- Highly stable design for critical needs

3. Applications

- Cellular Telephone, Pagers and GPS Products
- VCO, TCXO Circuit and RF Transceiver Module
- Wireless LAN, Bluetooth Module , Communication Appliances

4-1. Construction



① Alumina Substrate	④ External Electrode	⑦ Overcoat
② Inner Electrode	⑤ Edge Electrode	⑧ Marking
③ Barrier Layer	⑥ Cu Circuits	

4-2. Dimensions

Unit: mm

Type	Size (Inch)	Figure	A	B	C	D	Weight (g) (1000pcs)
AL01	0201	Figure2	0.60 \pm 0.05	0.30 \pm 0.05	0.23 \pm 0.05	0.15 \pm 0.05	0.23
AL02	0402	Figure1	1.0 \pm 0.05	0.5 \pm 0.05	0.32 \pm 0.05	0.2 \pm 0.10	0.9

5. Part Numbering

Product Type	Dimensions	Inductance Tolerance	Packaging Code	Inductance	
AL	02	B	T	3N9	M
	01: 0201 02: 0402	B: $\pm 0.1\text{nH}$ C: $\pm 0.2\text{nH}$ S: $\pm 0.3\text{nH}$ F: $\pm 1\%$ G: $\pm 2\%$ H: $\pm 3\%$ J: $\pm 5\%$	T: Taping Reel	1N0: 1.0nH 10N: 10nH 20N8: 20.8nH	M: Murata M02: Murata High Q

6. Standard Electrical Specifications

0201 Chip Inductors

Inductance (nH)	Inductance Tolerance (% or nH)	Quality Factor /min.	Resistance DC/Max (Ohm)	Current DC/Max (mA)	Self Resonant Frequency/min. (GHz)
0.1	0.1nH	8 / 500MHz	0.2	400	9
0.2	0.1/0.2nH	8 / 500MHz	0.2	400	9
0.3	0.1/0.2/0.3nH	8 / 500MHz	0.2	400	9
0.4	0.1/0.2/0.3nH	8 / 500MHz	0.25	350	9
0.5	0.1/0.2/0.3nH	8 / 500MHz	0.25	350	9
0.6	0.1/0.2/0.3nH	8 / 500MHz	0.25	350	9
0.7	0.1/0.2/0.3nH	8 / 500MHz	0.3	300	9
0.8	0.1/0.2/0.3nH	8 / 500MHz	0.3	300	9
0.9	0.1/0.2/0.3nH	8 / 500MHz	0.3	300	9
1.0	0.1/0.2/0.3nH	8 / 500MHz	0.3	300	9
1.1	0.1/0.2/0.3nH	8 / 500MHz	0.35	300	9
1.2	0.1/0.2/0.3nH	8 / 500MHz	0.35	300	9
1.3	0.1/0.2/0.3nH	8 / 500MHz	0.45	250	9
1.4	0.1/0.2/0.3nH	8 / 500MHz	0.45	250	9
1.5	0.1/0.2/0.3nH	8 / 500MHz	0.45	250	9
1.6	0.1/0.2/0.3nH	8 / 500MHz	0.55	200	9
1.7	0.1/0.2/0.3nH	8 / 500MHz	0.55	200	9
1.8	0.1/0.2/0.3nH	8 / 500MHz	0.55	200	9
1.9	0.1/0.2/0.3nH	8 / 500MHz	0.55	200	9
2.0	0.1/0.2/0.3nH	8 / 500MHz	0.70	200	8
2.1	0.1/0.2/0.3nH	8 / 500MHz	0.70	200	8
2.2	0.1/0.2/0.3nH	8 / 500MHz	0.70	200	8
2.3	0.1/0.2/0.3nH	8 / 500MHz	0.80	150	8
2.4	0.1/0.2/0.3nH	8 / 500MHz	0.80	150	8
2.5	0.1/0.2/0.3nH	8 / 500MHz	0.80	150	8
2.6	0.1/0.2/0.3nH	8 / 500MHz	0.80	150	8
2.7	0.1/0.2/0.3nH	8 / 500MHz	0.80	150	8
2.8	0.1/0.2/0.3nH	8 / 500MHz	1.00	150	6
2.9	0.1/0.2/0.3nH	8 / 500MHz	1.00	150	6
3.0	0.1/0.2/0.3nH	8 / 500MHz	1.00	150	6
3.1	0.1/0.2/0.3nH	8 / 500MHz	1.00	150	6
3.2	0.1/0.2/0.3nH	8 / 500MHz	1.00	150	6
3.3	0.1/0.2/0.3nH	8 / 500MHz	1.00	150	6
3.4	0.1/0.2/0.3nH	8 / 500MHz	1.20	150	6
3.5	0.1/0.2/0.3nH	8 / 500MHz	1.20	150	6
3.6	0.1/0.2/0.3nH	8 / 500MHz	1.20	150	6
3.7	0.1/0.2/0.3nH or 3/5%	8 / 500MHz	1.20	150	6
3.8	0.1/0.2/0.3nH or 3/5%	8 / 500MHz	1.20	150	6
3.9	0.1/0.2/0.3nH or 3/5%	8 / 500MHz	1.20	150	6
4.0	0.1/0.2/0.3nH or 3/5%	8 / 500MHz	1.20	150	6
4.4	0.1/0.2/0.3nH or 3/5%	8 / 500MHz	1.30	140	6
4.7	0.1/0.2/0.3nH or 3/5%	8 / 500MHz	1.40	130	6
4.9	0.1/0.2/0.3nH or 3/5%	8 / 500MHz	1.60	130	6
5.6	2/3/5%	8 / 500MHz	1.80	130	4
6.1	2/3/5%	8 / 500MHz	2.00	120	4
6.8	2/3/5%	8 / 500MHz	2.30	110	4
7.4	2/3/5%	8 / 500MHz	2.80	110	4
8.2	2/3/5%	8 / 500MHz	3.00	110	3
9.1	2/3/5%	8 / 500MHz	3.25	100	3
9.2	2/3/5%	8 / 500MHz	3.25	100	3
10.0	2/3/5%	8 / 500MHz	3.50	80	2

Operating Temperature Range: -40°C to +85°C

Test Equipment: HP4287A+Agilent 16196C

* Viking is capable to manufacture the optional spec based on customer's requirement.

AL01-02 Chip Inductors / High Q Type

Inductance (nH)	Inductance Tolerance (nH or %)	Quality Factor min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.
0.1	±0.1nH	14 / 500MHz	6	0.05	850
0.2	±0.1, 0.2nH	14 / 500MHz	6	0.05	800
0.3	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.05	800
0.4	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.05	750
0.5	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.10	750
0.6	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.10	750
0.7	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.10	600
0.8	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.10	600
0.9	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.10	600
1.0	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.15	600
1.1	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.15	600
1.2	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.15	600
1.3	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.15	600
1.4	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.15	600
1.5	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.15	600
1.6	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.15	600
1.7	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.2	500
1.8	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.2	500
1.9	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.2	500
2.0	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.2	500
2.1	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.2	500
2.2	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.2	500
2.3	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.2	500
2.4	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.25	450
2.5	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.25	450
2.6	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.25	450
2.7	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.25	450
2.8	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.25	450
2.9	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.25	450
3.0	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.3	400
3.1	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.3	400
3.2	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.3	400
3.3	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.3	400
3.4	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.4	350
3.5	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.4	350
3.6	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.4	350
3.7	0.1/0.2/0.3nH or 3/5%	14 / 500MHz	6	0.4	350
3.8	0.1/0.2/0.3nH or 3/5%	14 / 500MHz	6	0.4	350
3.9	0.1/0.2/0.3nH or 3/5%	14 / 500MHz	6	0.4	350
4.0	0.1/0.2/0.3nH or 3/5%	14 / 500MHz	6	0.4	350
4.4	0.1/0.2/0.3nH or 3/5%	14 / 500MHz	6	0.5	300
4.7	0.1/0.2/0.3nH or 3/5%	14 / 500MHz	6	0.5	300
4.9	0.1/0.2/0.3nH or 3/5%	14 / 500MHz	6	0.6	300
5.6	2/3/5%	14 / 500MHz	6	0.6	250
6.1	2/3/5%	14 / 500MHz	5.5	0.7	250
6.8	2/3/5%	14 / 500MHz	5	0.75	250
7.4	2/3/5%	14 / 500MHz	5	0.8	200
8.2	2/3/5%	14 / 500MHz	4.5	0.9	200
9.1	2/3/5%	14 / 500MHz	4	1.05	175
9.2	2/3/5%	14 / 500MHz	4	1.15	150
10	2/3/5%	14 / 500MHz	3.5	1.3	150

Operating Temperature Range: -40°C to +85°C

Test Equipment: HP4287A+Agilent 16196C

* Viking is capable to manufacture the optional spec based on customer's requirement.

7. Standard Electrical Specifications

0402 Chip Inductors

Inductance (nH)	Tolerance (% or nH)	Quality Factor (Min)	Resistance DC/Max (Ohm)	Current DC/Max (mA)	Self Resonant Frequency/Min (>GHz)
0.2	0.1/0.2nH	13 / 500MHz	0.10	800	14
0.3	0.1/0.2/0.3nH	13 / 500MHz	0.10	800	14
0.4	0.1/0.2/0.3nH	13 / 500MHz	0.10	800	14
0.5	0.1/0.2/0.3nH	13 / 500MHz	0.15	700	14
0.8	0.1/0.2/0.3nH	13 / 500MHz	0.15	700	14
0.9	0.1/0.2/0.3nH	13 / 500MHz	0.15	700	14
1.0	0.1/0.2/0.3nH	13 / 500MHz	0.15	700	12
1.1	0.1/0.2/0.3nH	13 / 500MHz	0.15	700	12
1.2	0.1/0.2/0.3nH	13 / 500MHz	0.15	700	12
1.3	0.1/0.2/0.3nH	13 / 500MHz	0.25	700	10
1.4	0.1/0.2/0.3nH	13 / 500MHz	0.25	700	10
1.5	0.1/0.2/0.3nH	13 / 500MHz	0.25	700	10
1.6	0.1/0.2/0.3nH	13 / 500MHz	0.25	560	10
1.7	0.1/0.2/0.3nH	13 / 500MHz	0.25	560	10
1.8	0.1/0.2/0.3nH	13 / 500MHz	0.25	560	10
1.9	0.1/0.2/0.3nH	13 / 500MHz	0.35	560	8
2.0	0.1/0.2/0.3nH	13 / 500MHz	0.35	560	8
2.1	0.1/0.2/0.3nH	13 / 500MHz	0.35	440	8
2.2	0.1/0.2/0.3nH	13 / 500MHz	0.35	440	8
2.3	0.1/0.2/0.3nH	13 / 500MHz	0.35	440	8
2.4	0.1/0.2/0.3nH	13 / 500MHz	0.35	440	8
2.5	0.1/0.2/0.3nH	13 / 500MHz	0.35	440	8
2.6	0.1/0.2/0.3nH	13 / 500MHz	0.35	440	8
2.7	0.1/0.2/0.3nH	13 / 500MHz	0.35	440	8
2.8	0.1/0.2/0.3nH	13 / 500MHz	0.45	380	6
2.9	0.1/0.2/0.3nH	13 / 500MHz	0.45	380	6
3.0	0.1/0.2/0.3nH	13 / 500MHz	0.45	380	6
3.1	0.1/0.2/0.3nH	13 / 500MHz	0.45	380	6
3.2	0.1/0.2/0.3nH	13 / 500MHz	0.45	380	6
3.3	0.1/0.2/0.3nH	13 / 500MHz	0.45	380	6
3.4	0.1/0.2/0.3nH	13 / 500MHz	0.55	380	6
3.5	0.1/0.2/0.3nH	13 / 500MHz	0.55	380	6
3.6	0.1/0.2/0.3nH	13 / 500MHz	0.55	380	6
3.7	0.1/0.2/0.3nH	13 / 500MHz	0.55	340	6
3.8	0.1/0.2/0.3nH	13 / 500MHz	0.55	340	6
3.9	0.1/0.2/0.3nH	13 / 500MHz	0.55	340	6
4.3	0.1/0.2/0.3nH	13 / 500MHz	0.65	320	6
4.7	0.1/0.2/0.3nH	13 / 500MHz	0.65	320	6
5.4	0.1/0.2/0.3nH	13 / 500MHz	0.85	280	6
5.6	0.1/0.2/0.3nH	13 / 500MHz	0.85	280	6
5.9	0.1/0.2/0.3nH	13 / 500MHz	0.85	280	6
6.5	0.1/0.2/0.3nH	13 / 500MHz	1.05	260	6
6.8	0.1/0.2/0.3nH	13 / 500MHz	1.05	260	6
7.2	0.1/0.2/0.3nH	13 / 500MHz	1.05	260	6
8.0	0.1/0.2/0.3nH	13 / 500MHz	1.25	220	5.5
8.1	0.1/0.2/0.3nH	13 / 500MHz	1.25	220	5.5
8.2	0.1/0.2/0.3nH	13 / 500MHz	1.25	220	5.5
9.1	0.1/0.2/0.3nH	13 / 500MHz	1.25	220	5.5
10	1/2/3/5%	13 / 500MHz	1.35	200	4.5
10.8	1/2/3/5%	13 / 500MHz	1.35	200	4.5
12	1/2/3/5%	13 / 500MHz	1.55	180	3.7
13.8	1/2/3/5%	13 / 500MHz	1.75	180	3.7
15	1/2/3/5%	13 / 500MHz	1.75	130	3.3
17	1/2/3/5%	13 / 500MHz	1.95	100	3.1
18	1/2/3/5%	13 / 500MHz	2.15	100	3.1
20.8	1/2/3/5%	13 / 500MHz	2.55	90	2.8
22	1/2/3/5%	13 / 500MHz	2.65	90	2.8
25.7	1/2/3/5%	13 / 500MHz	3.25	75	2.5
27	1/2/3/5%	13 / 500MHz	3.25	75	2.5
31.6	2/3/5%	13 / 500MHz	4.5	75	2.5
33	5%	13 / 500MHz	4.50	75	2.5

Operating Temperature Range: -40°C to +85°C

Test Equipment: HP4287A+Agilent 16196B

0402-02 Chip Inductors / High Q Type

Inductance (nH)	Tolerance (% or nH)	Quality Factor (Min)	Resistance DC/Max (Ohm)	Current DC/Max (mA)	Self Resonant Frequency/Min (>GHz)
0.2	±0.1, 0.2nH	16 / 500MHz	0.1	1000	14
0.3	±0.1, 0.2, 0.3nH	16 / 500MHz	0.1	1000	14
0.4	±0.1, 0.2, 0.3nH	16 / 500MHz	0.1	1000	14
0.5	±0.1, 0.2, 0.3nH	16 / 500MHz	0.12	850	14
0.6	±0.1, 0.2, 0.3nH	16 / 500MHz	0.12	850	14
0.7	±0.1, 0.2, 0.3nH	16 / 500MHz	0.12	850	14
0.8	±0.1, 0.2, 0.3nH	16 / 500MHz	0.12	850	14
0.9	±0.1, 0.2, 0.3nH	16 / 500MHz	0.12	850	14
1.0	±0.1, 0.2, 0.3nH	16 / 500MHz	0.12	850	12
1.1	±0.1, 0.2, 0.3nH	16 / 500MHz	0.12	850	12
1.2	±0.1, 0.2, 0.3nH	16 / 500MHz	0.12	850	12
1.3	±0.1, 0.2, 0.3nH	16 / 500MHz	0.2	850	10
1.4	±0.1, 0.2, 0.3nH	16 / 500MHz	0.2	850	10
1.5	±0.1, 0.2, 0.3nH	16 / 500MHz	0.2	850	10
1.6	±0.1, 0.2, 0.3nH	16 / 500MHz	0.2	675	10
1.7	±0.1, 0.2, 0.3nH	16 / 500MHz	0.2	675	10
1.8	±0.1, 0.2, 0.3nH	16 / 500MHz	0.2	675	10
1.9	±0.1, 0.2, 0.3nH	16 / 500MHz	0.28	675	8
2.0	±0.1, 0.2, 0.3nH	16 / 500MHz	0.28	675	8
2.1	±0.1, 0.2, 0.3nH	16 / 500MHz	0.28	530	8
2.2	±0.1, 0.2, 0.3nH	16 / 500MHz	0.28	530	8
2.3	±0.1, 0.2, 0.3nH	16 / 500MHz	0.28	530	8
2.4	±0.1, 0.2, 0.3nH	16 / 500MHz	0.28	530	8
2.5	±0.1, 0.2, 0.3nH	16 / 500MHz	0.28	530	8
2.6	±0.1, 0.2, 0.3nH	16 / 500MHz	0.28	530	8
2.7	±0.1, 0.2, 0.3nH	16 / 500MHz	0.28	530	8
2.8	±0.1, 0.2, 0.3nH	16 / 500MHz	0.35	460	6
2.9	±0.1, 0.2, 0.3nH	16 / 500MHz	0.35	460	6
3.0	±0.1, 0.2, 0.3nH	16 / 500MHz	0.35	460	6
3.1	±0.1, 0.2, 0.3nH	16 / 500MHz	0.35	460	6
3.2	±0.1, 0.2, 0.3nH	16 / 500MHz	0.35	460	6
3.3	±0.1, 0.2, 0.3nH	16 / 500MHz	0.35	460	6
3.4	±0.1, 0.2, 0.3nH	16 / 500MHz	0.45	460	6
3.5	±0.1, 0.2, 0.3nH	16 / 500MHz	0.45	460	6
3.6	±0.1, 0.2, 0.3nH	16 / 500MHz	0.45	460	6
3.7	±0.1, 0.2, 0.3nH	16 / 500MHz	0.45	410	6
3.8	±0.1, 0.2, 0.3nH	16 / 500MHz	0.45	410	6
3.9	±0.1, 0.2, 0.3nH	16 / 500MHz	0.45	410	6
4.3	±0.1, 0.2, 0.3nH	16 / 500MHz	0.55	350	6
4.7	±0.1, 0.2, 0.3nH	16 / 500MHz	0.55	350	6
5.4	±0.1, 0.2, 0.3nH	16 / 500MHz	0.7	310	6
5.6	±0.1, 0.2, 0.3nH	16 / 500MHz	0.7	310	6
5.9	±0.1, 0.2, 0.3nH	16 / 500MHz	0.7	310	6
6.5	±0.1, 0.2, 0.3nH	16 / 500MHz	0.9	290	6
6.8	±0.1, 0.2, 0.3nH	16 / 500MHz	0.9	290	6
7.2	±0.1, 0.2, 0.3nH	16 / 500MHz	0.9	290	6
8.0	±0.1, 0.2, 0.3nH	16 / 500MHz	1.0	245	5.5
8.1	±0.1, 0.2, 0.3nH	16 / 500MHz	1.0	245	5.5
8.2	±0.1, 0.2, 0.3nH	16 / 500MHz	1.0	245	5.5
9.1	±0.1, 0.2, 0.3nH	16 / 500MHz	1.0	245	5.5
10	±1, 2, 3, 5%	16 / 500MHz	1.1	220	4.5

Operating Temperature Range: -40°C to +85°C

Test Equipment: HP4287A+Agilent 16196B

* Viking is capable to manufacture the optional spec based on customer's requirement.

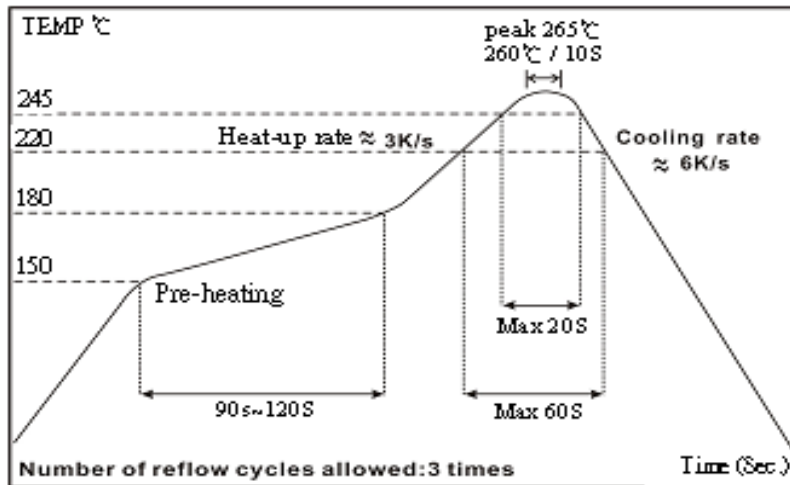
8. Environmental Characteristics

Item	Specification	Test Method	
1	Insulation Resistance	>1000MΩ	Apply 100V _{DC} for 1 minute
2	Damp Heat with Load	$\Delta L \leq 10\%$	40±2°C, 90~95% R.H. Max. working voltage For 1000 hrs with 1.5 hrs "ON" and 0.5hrs "OFF"
3	Bending Strength	As Spec	Bending Amplitude 3mm for 10 seconds
4	Solderability	95% min. coverage	245±5°C for 3 seconds
5	Resistance to Soldering Heat	$\Delta L \leq 10\%$	260±5°C for 10 seconds
6	Dielectric Withstand Voltage	>100V	Apply 100VA(rms) for 1 minute
7	High Temperature Exposure	$\Delta L \leq 10\%$	85±2°C, 1000 +48/-0 hours
8	Low Temperature Storage	$\Delta L \leq 10\%$	-40±3°C, 1000 +48/-0 hours
9	Temperature Cycle	$\Delta L \leq 10\%$	-40/RT/85/RT, 10 cycles

* Reference Standards : MIL-STD-202, JIS-C 5201-1

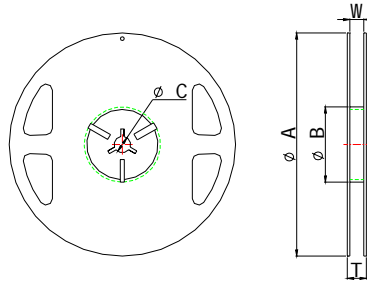
* Storage Temperature :15~28 °C; Humidity <80%RH

9. Reflow



10. Packaging

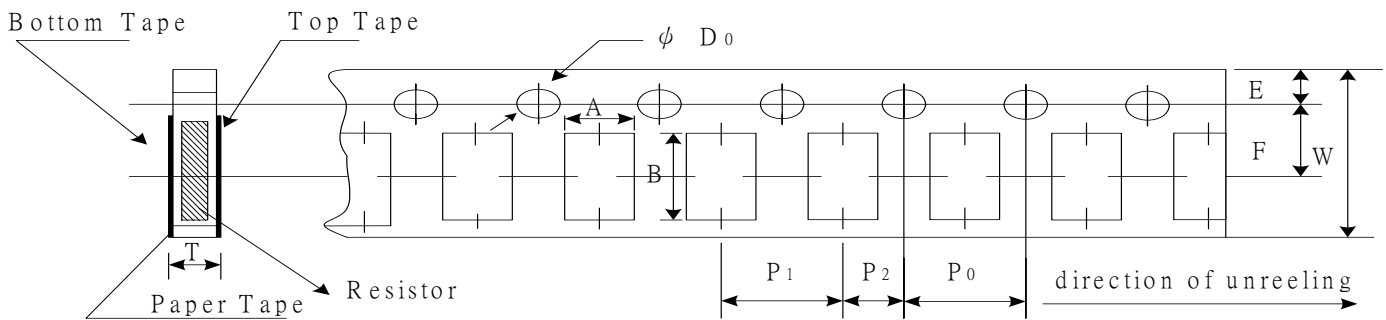
10-1. Reel Specifications & Packaging Quantity



Unit: mm

Codes	ϕA	ϕB	ϕC	W	T	Paper Tape (EA)
AL01	178.0±1.0	60.0±1.0	13.5±0.7	9.5±1.0	11.5±1.0	10,000
AL02	178.0±1.0	60.0±1.0	13.5±0.7	9.5±1.0	11.5±1.0	10,000

10-2. Paper Tape Specifications



Unit: mm

Codes	A	B	W	E	F	P0	P1	P2	$\phi D0$	T
AL01	0.40±0.05	0.70±0.05	8.00±0.10	1.75±0.05	3.5±0.05	4.00±0.10	2.00±0.05	2.00±0.05	1.55±0.03	0.42±0.02
AL02	0.70±0.05	1.16±0.05	8.00±0.10	1.75±0.05	3.5±0.05	4.00±0.10	2.00±0.05	2.00±0.05	1.55±0.05	0.40±0.03

Remark : Test Method

1. Test fixture : HP16196
2. Test direction: bar mark faces left

11. p/n and Description Correspondence (between Viking and Murata)

0201 Series

Inductance (nH)	Tolerance (nH or %)	Viking Series P/N	Murata Series P/N
0.1nH	±0.1nH	AL01BT0N7M	LQP03TN0N7B
0.1nH	±0.2nH	AL01CT0N7M	LQP03TN0N7C
0.2nH	±0.1nH	AL01BT0N8M	LQP03TN0N8B
0.2nH	±0.2nH	AL01CT0N8M	LQP03TN0N8C
0.3nH	±0.1nH	AL01BT0N9M	LQP03TN0N9B
0.3nH	±0.2nH	AL01CT0N9M	LQP03TN0N9C
0.4nH	±0.1nH	AL01BT1N0M	LQP03TN1N0B04
0.4nH	±0.2nH	AL01CT1N0M	LQP03TN1N0C04
0.5nH	±0.1nH	AL01BT1N1M	LQP03TN1N1B04
0.5nH	±0.2nH	AL01CT1N1M	LQP03TN1N1C04
0.6nH	±0.1nH	AL01BT1N2M	LQP03TN1N2B04
0.6nH	±0.2nH	AL01CT1N2M	LQP03TN1N2C04
0.7nH	±0.1nH	AL01BT1N3M	LQP03TN1N3B04
0.7nH	±0.2nH	AL01CT1N3M	LQP03TN1N3C04
0.8nH	±0.1nH	AL01BT1N4M	LQP03TN1N4B04
0.8nH	±0.2nH	AL01CT1N4M	LQP03TN1N4C04
0.9nH	±0.1nH	AL01BT1N5M	LQP03TN1N5B04
0.9nH	±0.2nH	AL01CT1N5M	LQP03TN1N5C04
1.0nH	±0.1nH	AL01BT1N6M	LQP03TN1N6B04
1.0nH	±0.2nH	AL01CT1N6M	LQP03TN1N6C04
1.1nH	±0.1nH	AL01BT1N7M	LQP03TN1N7B04
1.1nH	±0.2nH	AL01CT1N7M	LQP03TN1N7C04
1.2nH	±0.1nH	AL01BT1N8M	LQP03TN1N8B04
1.2nH	±0.2nH	AL01CT1N8M	LQP03TN1N8C04
1.3nH	±0.1nH	AL01BT1N9M	LQP03TN1N9B04
1.3nH	±0.2nH	AL01CT1N9M	LQP03TN1N9C04
1.4nH	±0.1nH	AL01BT2N0M	LQP03TN2N0B04
1.4nH	±0.2nH	AL01CT2N0M	LQP03TN2N0C04
1.5nH	±0.1nH	AL01BT2N1M	LQP03TN2N1B04
1.5nH	±0.2nH	AL01CT2N1M	LQP03TN2N1C04
1.6nH	±0.1nH	AL01BT2N2M	LQP03TN2N2B04
1.6nH	±0.2nH	AL01CT2N2M	LQP03TN2N2C04
1.7nH	±0.1nH	AL01BT2N3M	LQP03TN2N3B04
1.7nH	±0.2nH	AL01CT2N3M	LQP03TN2N3C04
1.8nH	±0.1nH	AL01BT2N4M	LQP03TN2N4B04
1.8nH	±0.2nH	AL01CT2N4M	LQP03TN2N4C04
1.9nH	±0.1nH	AL01BT2N5M	LQP03TN2N5B04
1.9nH	±0.2nH	AL01CT2N5M	LQP03TN2N5C04
2.0nH	±0.1nH	AL01BT2N6M	LQP03TN2N6B04
2.0nH	±0.2nH	AL01CT2N6M	LQP03TN2N6C04
2.1nH	±0.1nH	AL01BT2N7M	LQP03TN2N7B04
2.1nH	±0.2nH	AL01CT2N7M	LQP03TN2N7C04
2.2nH	±0.1nH	AL01BT2N8M	LQP03TN2N8B04
2.2nH	±0.2nH	AL01CT2N8M	LQP03TN2N8C04
2.3nH	±0.1nH	AL01BT2N9M	LQP03TN2N9B04
2.3nH	±0.2nH	AL01CT2N9M	LQP03TN2N9C04
2.4nH	±0.1nH	AL01BT3N0M	LQP03TN3N0B04
2.4nH	±0.2nH	AL01CT3N0M	LQP03TN3N0C04

2.5nH	±0.1nH	AL01BT3N1M	LQP03TN3N1B04
2.5nH	±0.2nH	AL01CT3N1M	LQP03TN3N1C04
2.6nH	±0.1nH	AL01BT3N2M	LQP03TN3N2B04
2.6nH	±0.2nH	AL01CT3N2M	LQP03TN3N2C04
2.7nH	±0.1nH	AL01BT3N3M	LQP03TN3N3B04
2.7nH	±0.2nH	AL01CT3N3M	LQP03TN3N3C04
2.8nH	±0.1nH	AL01BT3N4M	LQP03TN3N4B04
2.8nH	±0.2nH	AL01CT3N4M	LQP03TN3N4C04
2.9nH	±0.1nH	AL01BT3N5M	LQP03TN3N5B04
2.9nH	±0.2nH	AL01CT3N5M	LQP03TN3N5C04
3.0nH	±0.1nH	AL01BT3N6M	LQP03TN3N6B04
3.0nH	±0.2nH	AL01CT3N6M	LQP03TN3N6C04
3.1nH	±0.1nH	AL01BT3N7M	LQP03TN3N7B04
3.1nH	±0.2nH	AL01CT3N7M	LQP03TN3N7C04
3.2nH	±0.1nH	AL01BT3N8M	LQP03TN3N8B04
3.2nH	±0.2nH	AL01CT3N8M	LQP03TN3N8C04
3.3nH	±0.1nH	AL01BT3N9M	LQP03TN3N9B04
3.3nH	±0.2nH	AL01CT3N9M	LQP03TN3N9C04
3.4nH	±0.1nH	AL01BT4N0M	LQP03TN4N0B04
3.4nH	±0.2nH	AL01CT4N0M	LQP03TN4N0C04
3.5nH	±0.1nH	AL01BT4N1M	LQP03TN4N1B04
3.5nH	±0.2nH	AL01CT4N1M	LQP03TN4N1C04
3.6nH	±0.1nH	AL01BT4N2M	LQP03TN4N2B04
3.6nH	±0.2nH	AL01CT4N2M	LQP03TN4N2C04
3.7nH	±3%	AL01HT4N3M	LQP03TN4N3H04
3.7nH	±5%	AL01JT4N3M	LQP03TN4N3J04
4.0nH	±3%	AL01HT4N7M	LQP03TN4N7H04
4.0nH	±5%	AL01JT4N7M	LQP03TN4N7J04
4.4nH	±3%	AL01HT5N1M	LQP03TN5N1H04
4.4nH	±5%	AL01JT5N1M	LQP03TN5N1J04
4.9nH	±3%	AL01HT5N6M	LQP03TN5N6H04
4.9nH	±5%	AL01JT5N6M	LQP03TN5N6J04
5.6nH	±3%	AL01HT6N2M	LQP03TN6N2H04
5.6nH	±5%	AL01JT6N2M	LQP03TN6N2J04
6.1nH	±3%	AL01HT6N8M	LQP03TN6N8H04
6.1nH	±5%	AL01JT6N8M	LQP03TN6N8J04
6.8nH	±3%	AL01HT7N5M	LQP03TN7N5H04
6.8nH	±5%	AL01JT7N5M	LQP03TN7N5J04
7.4nH	±3%	AL01HT8N2M	LQP03TN8N2H04
7.4nH	±5%	AL01JT8N2M	LQP03TN8N2J04
8.2nH	±3%	AL01HT9N1M	LQP03TN9N1H04
8.2nH	±5%	AL01JT9N1M	LQP03TN9N1J04
9.2nH	±3%	AL01HT10NM	LQP03TN10NH04
9.2nH	±5%	AL01JT10NM	LQP03TN10NJ04
10nH	±3%	AL01HT10N8M	LQP03TN10N8H04
10nH	±5%	AL01JT10N8M	LQP03TN10N8J04

Test Equipment: HP4287A+Agilent 16196C

11. p/n and Description Correspondence (between Viking and Murata)

0201-02 Series

Inductance (nH)	Tolerance (nH or %)	Viking Series P/N	Murata Series P/N
0.1nH	±0.1nH	AL01BT0N7M02	LQP03TN0N7B02
0.1nH	±0.2nH	AL01CT0N7M02	LQP03TN0N7C02
0.2nH	±0.1nH	AL01BT0N8M02	LQP03TN0N8B02
0.2nH	±0.2nH	AL01CT0N8M02	LQP03TN0N8C02
0.3nH	±0.1nH	AL01BT0N9M02	LQP03TN0N9B02
0.3nH	±0.2nH	AL01CT0N9M02	LQP03TN0N9C02
0.4nH	±0.1nH	AL01BT1N0M02	LQP03TN1N0B02
0.4nH	±0.2nH	AL01CT1N0M02	LQP03TN1N0C02
0.5nH	±0.1nH	AL01BT1N1M02	LQP03TN1N1B02
0.5nH	±0.2nH	AL01CT1N1M02	LQP03TN1N1C02
0.6nH	±0.1nH	AL01BT1N2M02	LQP03TN1N2B02
0.6nH	±0.2nH	AL01CT1N2M02	LQP03TN1N2C02
0.7nH	±0.1nH	AL01BT1N3M02	LQP03TN1N3B02
0.7nH	±0.2nH	AL01CT1N3M02	LQP03TN1N3C02
0.8nH	±0.1nH	AL01BT1N4M02	LQP03TN1N4B02
0.8nH	±0.2nH	AL01CT1N4M02	LQP03TN1N4C02
0.9nH	±0.1nH	AL01BT1N5M02	LQP03TN1N5B02
0.9nH	±0.2nH	AL01CT1N5M02	LQP03TN1N5C02
1.0nH	±0.1nH	AL01BT1N6M02	LQP03TN1N6B02
1.0nH	±0.2nH	AL01CT1N6M02	LQP03TN1N6C02
1.1nH	±0.1nH	AL01BT1N7M02	LQP03TN1N7B02
1.1nH	±0.2nH	AL01CT1N7M02	LQP03TN1N7C02
1.2nH	±0.1nH	AL01BT1N8M02	LQP03TN1N8B02
1.2nH	±0.2nH	AL01CT1N8M02	LQP03TN1N8C02
1.3nH	±0.1nH	AL01BT1N9M02	LQP03TN1N9B02
1.3nH	±0.2nH	AL01CT1N9M02	LQP03TN1N9C02
1.4nH	±0.1nH	AL01BT2N0M02	LQP03TN2N0B02
1.4nH	±0.2nH	AL01CT2N0M02	LQP03TN2N0C02
1.5nH	±0.1nH	AL01BT2N1M02	LQP03TN2N1B02
1.5nH	±0.2nH	AL01CT2N1M02	LQP03TN2N1C02
1.6nH	±0.1nH	AL01BT2N2M02	LQP03TN2N2B02
1.6nH	±0.2nH	AL01CT2N2M02	LQP03TN2N2C02
1.7nH	±0.1nH	AL01BT2N3M02	LQP03TN2N3B02
1.7nH	±0.2nH	AL01CT2N3M02	LQP03TN2N3C02
1.8nH	±0.1nH	AL01BT2N4M02	LQP03TN2N4B02
1.8nH	±0.2nH	AL01CT2N4M02	LQP03TN2N4C02
1.9nH	±0.1nH	AL01BT2N5M02	LQP03TN2N5B02
1.9nH	±0.2nH	AL01CT2N5M02	LQP03TN2N5C02
2.0nH	±0.1nH	AL01BT2N6M02	LQP03TN2N6B02
2.0nH	±0.2nH	AL01CT2N6M02	LQP03TN2N6C02
2.1nH	±0.1nH	AL01BT2N7M02	LQP03TN2N7B02
2.1nH	±0.2nH	AL01CT2N7M02	LQP03TN2N7C02
2.2nH	±0.1nH	AL01BT2N8M02	LQP03TN2N8B02
2.2nH	±0.2nH	AL01CT2N8M02	LQP03TN2N8C02
2.3nH	±0.1nH	AL01BT2N9M02	LQP03TN2N9B02
2.3nH	±0.2nH	AL01CT2N9M02	LQP03TN2N9C02
2.4nH	±0.1nH	AL01BT3N0M02	LQP03TN3N0B02
2.4nH	±0.2nH	AL01CT3N0M02	LQP03TN3N0C02

2.5nH	±0.1nH	AL01BT3N1M02	LQP03TN3N1B02
2.5nH	±0.2nH	AL01CT3N1M02	LQP03TN3N1C02
2.6nH	±0.1nH	AL01BT3N2M02	LQP03TN3N2B02
2.6nH	±0.2nH	AL01CT3N2M02	LQP03TN3N2C02
2.7nH	±0.1nH	AL01BT3N3M02	LQP03TN3N3B02
2.7nH	±0.2nH	AL01CT3N3M02	LQP03TN3N3C02
2.8nH	±0.1nH	AL01BT3N4M02	LQP03TN3N4B02
2.8nH	±0.2nH	AL01CT3N4M02	LQP03TN3N4C02
2.9nH	±0.1nH	AL01BT3N5M02	LQP03TN3N5B02
2.9nH	±0.2nH	AL01CT3N5M02	LQP03TN3N5C02
3.0nH	±0.1nH	AL01BT3N6M02	LQP03TN3N6B02
3.0nH	±0.2nH	AL01CT3N6M02	LQP03TN3N6C02
3.1nH	±0.1nH	AL01BT3N7M02	LQP03TN3N7B02
3.1nH	±0.2nH	AL01CT3N7M02	LQP03TN3N7C02
3.2nH	±0.1nH	AL01BT3N8M02	LQP03TN3N8B02
3.2nH	±0.2nH	AL01CT3N8M02	LQP03TN3N8C02
3.3nH	±0.1nH	AL01BT3N9M02	LQP03TN3N9B02
3.3nH	±0.2nH	AL01CT3N9M02	LQP03TN3N9C02
3.4nH	±0.1nH	AL01BT4N0M02	LQP03TN4N0B02
3.4nH	±0.2nH	AL01CT4N0M02	LQP03TN4N0C02
3.5nH	±0.1nH	AL01BT4N1M02	LQP03TN4N1B02
3.5nH	±0.2nH	AL01CT4N1M02	LQP03TN4N1C02
3.6nH	±0.1nH	AL01BT4N2M02	LQP03TN4N2B02
3.6nH	±0.2nH	AL01CT4N2M02	LQP03TN4N2C02
3.7nH	±3%	AL01HT4N3M02	LQP03TN4N3H02
3.7nH	±5%	AL01JT4N3M02	LQP03TN4N3J02
4.0nH	±3%	AL01HT4N7M02	LQP03TN4N7H02
4.0nH	±5%	AL01JT4N7M02	LQP03TN4N7J02
4.4nH	±3%	AL01HT5N1M02	LQP03TN5N1H02
4.4nH	±5%	AL01JT5N1M02	LQP03TN5N1J02
4.9nH	±3%	AL01HT5N6M02	LQP03TN5N6H02
4.9nH	±5%	AL01JT5N6M02	LQP03TN5N6J02
5.6nH	±3%	AL01HT6N2M02	LQP03TN6N2H02
5.6nH	±5%	AL01JT6N2M02	LQP03TN6N2J02
6.1nH	±3%	AL01HT6N8M02	LQP03TN6N8H02
6.1nH	±5%	AL01JT6N8M02	LQP03TN6N8J02
6.8nH	±3%	AL01HT7N5M02	LQP03TN7N5H02
6.8nH	±5%	AL01JT7N5M02	LQP03TN7N5J02
7.4nH	±3%	AL01HT8N2M02	LQP03TN8N2H02
7.4nH	±5%	AL01JT8N2M02	LQP03TN8N2J02
8.2nH	±3%	AL01HT9N1M02	LQP03TN9N1H02
8.2nH	±5%	AL01JT9N1M02	LQP03TN9N1J02
9.2nH	±3%	AL01HT10NM02	LQP03TN10NH02
9.2nH	±5%	AL01JT10NM02	LQP03TN10NJ02
10nH	±3%	AL01HT10N8M02	LQP03TN10N8H02
10nH	±5%	AL01JT10N8M02	LQP03TN10N8J02

Test Equipment: HP4287A+Agilent 16196C

11.p/n and Description Correspondence (between Viking and Murata)

0402 Series

Inductance (nH)	Tolerance (nH or %)	Viking Series P/N	Murata Series P/N
0.2nH	± 0.1nH	AL02BT1N0M	LQP15MN1N0B02
0.3nH	± 0.1nH	AL02BT1N1M	LQP15MN1N1B02
0.4nH	± 0.1nH	AL02BT1N2M	LQP15MN1N2B02
0.5nH	± 0.1nH	AL02BT1N3M	LQP15MN1N3B00
0.8nH	± 0.1nH	AL02BT1N5M	LQP15MN1N5B00
0.9nH	± 0.1nH	AL02BT1N6M	LQP15MN1N6B00
1.0nH	± 0.1nH	AL02BT1N7M	LQP15MN1N7B00
1.2nH	± 0.1nH	AL02BT1N8M	LQP15MN1N8B00
1.3nH	± 0.1nH	AL02BT2N0M	LQP15MN2N0B00
1.5nH	± 0.1nH	AL02BT2N2M	LQP15MN2N2B00
1.6nH	± 0.1nH	AL02BT2N3M	LQP15MN2N3B00
1.7nH	± 0.1nH	AL02BT2N4M	LQP15MN2N4B00
1.8nH	± 0.1nH	AL02BT2N7M	LQP15MN2N7B00
2.0nH	± 0.1nH	AL02BT2N9M	LQP15MN2N9B00
2.1nH	± 0.1nH	AL02BT3N0M	LQP15MN3N0B00
2.2nH	± 0.1nH	AL02BT3N1M	LQP15MN3N1B00
2.4nH	± 0.1nH	AL02BT3N2M	LQP15MN3N2B00
2.7nH	± 0.1nH	AL02BT3N3M	LQP15MN3N3B00
2.9nH	± 0.1nH	AL02BT3N6M	LQP15MN3N6B00
3.0nH	± 0.1nH	AL02BT3N7M	LQP15MN3N7B00
3.1nH	± 0.1nH	AL02BT3N9M	LQP15MN3N9B00
3.3nH	± 0.1nH	AL02BT4N1M	LQP15MN4N1B00
3.6nH	± 0.1nH	AL02BT4N3M	LQP15MN4N3B00
3.7nH	± 0.1nH	AL02BT4N5M	LQP15MN4N5B00
3.9nH	± 0.1nH	AL02BT4N7M	LQP15MN4N7B00
4.3nH	± 0.1nH	AL02BT5N1M	LQP15MN5N1B00
4.7nH	± 0.1nH	AL02BT5N6M	LQP15MN5N6B00
5.4nH	± 0.1nH	AL02BT6N2M	LQP15MN6N2B00
5.6nH	± 0.1nH	AL02BT6N5M	LQP15MN6N5B00
5.9nH	± 0.1nH	AL02BT6N8M	LQP15MN6N8B00
6.5nH	± 0.1nH	AL02BT7N5M	LQP15MN7N5B00
6.8nH	± 0.1nH	AL02BT7N7M	LQP15MN7N7B00
7.2nH	± 0.1nH	AL02BT8N2M	LQP15MN8N2B00
8.0nH	± 0.1nH	AL02BT9N0M	LQP15MN9N0B00
8.1nH	± 0.1nH	AL02BT9N1M	LQP15MN9N1B00
8.2nH	± 0.1nH	AL02BT9N2M	LQP15MN9N2B00
9.1nH	± 2%	AL02GT10NM	LQP15MN10NG02
10.8nH	± 2%	AL02GT12NM	LQP15MN12NG02
13.8nH	± 2%	AL02GT15NM	LQP15MN15NG02
17nH	± 2%	AL02GT18NM	LQP15MN18NG00
20.8nH	± 2%	AL02GT22NM	LQP15MN22NG00
25.7nH	± 2%	AL02GT27NM	LQP15MN27NG02
31.6nH	± 2%	AL02GT33NM	LQP15MN33NG02

Test Equipment: HP4287A+Agilent 16196B

0402-02 Series

Inductance (nH)	Tolerance (nH or %)	Viking Series P/N	Murata Series P/N
0.2	± 0.1nH	AL02BT1N0M02	LQP15MN1N0B02
0.3	± 0.1nH	AL02BT1N1M02	LQP15MN1N1B02
0.4	± 0.1nH	AL02BT1N2M02	LQP15MN1N2B02
0.5	± 0.1nH	AL02BT1N3M02	LQP15MN1N3B02
0.8	± 0.1nH	AL02BT1N5M02	LQP15MN1N5B02
0.9	± 0.1nH	AL02BT1N6M02	LQP15MN1N6B02
1.0	± 0.1nH	AL02BT1N8M02	LQP15MN1N8B02
1.2	± 0.1nH	AL02BT2N0M02	LQP15MN2N0B02
1.5	± 0.1nH	AL02BT2N2M02	LQP15MN2N2B02
1.7	± 0.1nH	AL02BT2N4M02	LQP15MN2N4B02
1.8	± 0.1nH	AL02BT2N7M02	LQP15MN2N7B02
2.1	± 0.1nH	AL02BT3N0M02	LQP15MN3N0B02
2.7	± 0.1nH	AL02BT3N3M02	LQP15MN3N3B02
2.9	± 0.1nH	AL02BT3N6M02	LQP15MN3N6B02
3.1	± 0.1nH	AL02BT3N9M02	LQP15MN3N9B02
3.6	± 0.1nH	AL02BT4N3M02	LQP15MN4N3B02
3.9	± 0.1nH	AL02BT4N7M02	LQP15MN4N7B02
4.3	± 0.1nH	AL02BT5N1M02	LQP15MN5N1B02
4.7	± 0.1nH	AL02BT5N6M02	LQP15MN5N6B02
5.4	± 0.1nH	AL02BT6N2M02	LQP15MN6N2B02
5.9	± 0.1nH	AL02BT6N8M02	LQP15MN6N8B02
6.5	± 0.1nH	AL02BT7N5M02	LQP15MN7N5B02
7.2	± 0.1nH	AL02BT8N2M02	LQP15MN8N2B02
8.1	± 0.1nH	AL02BT9N1M02	LQP15MN9N1B02
9.1	± 2%	AL02GT10NM02	LQP15MN10NG02

Test Equipment: HP4287A+Agilent 16196B