

## Data Sheet

Customer :

Product : Thin Film Chip Inductor - AL Series

Size.: 0201/0402

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## Thin Film Chip Inductor

### ■ Scope

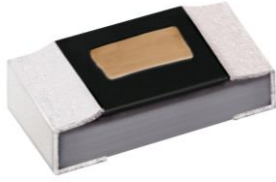
– Viking’s 0201 and 0402 series inductor is a photo lithographically etched single layer ceramic chip. Viking’s design provides high SRF, excellent Q, and superior temperature stability. This highly stable inductor family is specifically designed for critical tolerance needs.

### ■ Features

- Photolithographic 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

### ■ Applications

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



### ■ Construction

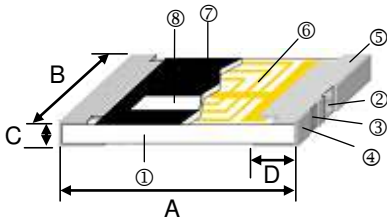


Figure1

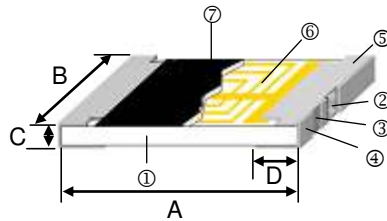
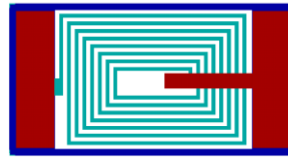


Figure2



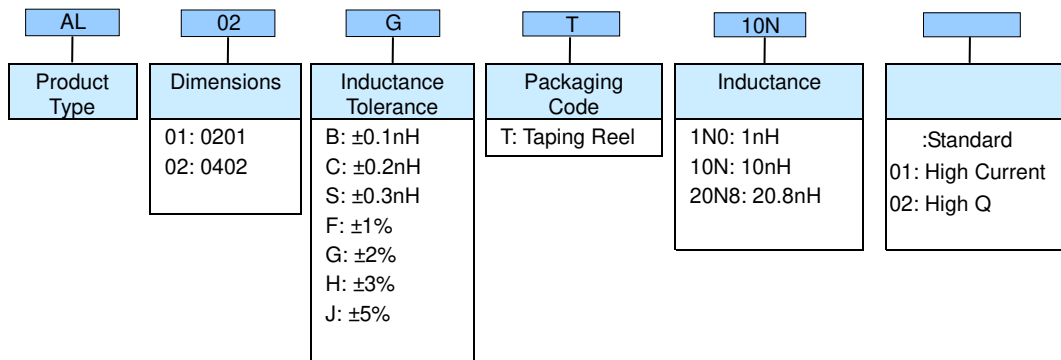
① Alumina Substrate	④ External Electrode	⑦ Overcoat
② Inner Electrode	⑤ Edge Electrode	⑧ Marking
③ Barrier Layer	⑥ Cu Circuits	

### ■ 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

### ■ Part Numbering



■ Viking is capable of manufacturing the optional spec based on customer’s requirement.

**■ Standard Electrical Specifications**

AL01 Chip Inductors / Standard Type

Inductance (nH)	Inductance Tolerance (nH or %)	Quality Factor min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.
0.1	±0.1nH	8 / 500MHz	9	0.20	400
0.2	±0.1, 0.2nH	8 / 500MHz	9	0.20	400
0.3	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.20	400
0.4	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.25	350
0.5	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.25	350
0.6	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.25	350
0.7	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.30	300
0.8	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.30	300
0.9	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.30	300
1.0	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.30	300
1.1	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.35	300
1.2	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.35	300
1.3	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.45	250
1.4	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.45	250
1.5	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.45	250
1.6	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.55	200
1.7	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.55	200
1.8	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.55	200
1.9	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.55	200
2.0	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.70	200
2.1	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.70	200
2.2	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.70	200
2.3	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.80	150
2.4	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.80	150
2.5	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.80	150
2.6	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.80	150
2.7	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.80	150
2.8	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.00	150
2.9	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.00	150
3.0	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.00	150
3.1	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.00	150
3.2	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.00	150
3.3	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.00	150
3.4	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.20	150
3.5	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.20	150
3.6	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.20	150
3.7	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.20	150
3.8	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.20	150
3.9	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.20	150
4.0	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.20	150
4.4	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.30	140
4.7	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.40	130
4.9	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.60	130
5.6	±2, ±3, ±5%	8 / 500MHz	4	1.80	130
6.1	±2, ±3, ±5%	8 / 500MHz	4	2.00	120
6.8	±2, ±3, ±5%	8 / 500MHz	4	2.30	110
7.4	±2, ±3, ±5%	8 / 500MHz	4	2.80	110
8.2	±2, ±3, ±5%	8 / 500MHz	3	3.00	110
9.1	±2, ±3, ±5%	8 / 500MHz	3	3.25	100
9.2	±2, ±3, ±5%	8 / 500MHz	3	3.25	100
10	±2, ±3, ±5%	8 / 500MHz	2	3.50	80

Operating Temperature Range: -55°C to +125°C

Test Equipment: HP4287A+Agilent 16196C

AL01-01 Chip Inductors / High Current Type

Inductance (nH)	Inductance Tolerance (nH or %)	Quality Factor min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.
0.1	±0.1nH	10 / 500MHz	6	0.05	600
0.2	±0.1, 0.2nH	10 / 500MHz	6	0.05	600
0.3	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.05	600
0.4	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.05	600
0.5	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.10	600
0.6	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.10	600
0.7	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.10	600
0.8	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.10	600
0.9	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.10	600
1.0	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.15	600
1.1	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.15	600
1.2	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.15	600
1.3	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.20	600
1.4	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.20	600
1.5	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.25	600
1.6	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.25	600
1.7	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.30	500
1.8	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.30	500
1.9	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.30	500
2.0	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.30	500
2.1	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.30	500
2.2	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.35	500
2.3	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.35	500
2.4	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.35	450
2.5	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.35	450
2.6	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.35	450
2.7	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.35	450
2.8	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.50	450
2.9	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.50	450
3.0	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.50	400
3.1	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.50	400
3.2	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.50	400
3.3	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.50	400
3.4	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.80	350
3.5	±0.1, 0.2, 0.3nH	10 / 500MHz	6	0.80	350
3.6	±0.1, 0.2, 0.3nH/±3, ±5%	10 / 500MHz	6	0.80	350
3.7	±0.1, 0.2, 0.3nH/±3, ±5%	10 / 500MHz	6	0.80	350
3.8	±0.1, 0.2, 0.3nH/±3, ±5%	10 / 500MHz	6	0.80	350
3.9	±0.1, 0.2, 0.3nH/±3, ±5%	10 / 500MHz	6	0.80	350
4.0	±0.1, 0.2, 0.3nH/±3, ±5%	10 / 500MHz	6	0.80	350
4.4	±0.1, 0.2, 0.3nH/±3, ±5%	10 / 500MHz	6	0.50	300
4.7	±0.1, 0.2, 0.3nH/±3, ±5%	10 / 500MHz	6	0.50	300
4.9	±0.1, 0.2, 0.3nH/±3, ±5%	10 / 500MHz	6	0.60	300
5.6	±2, ±3,±5%	10 / 500MHz	6	0.60	250
6.1	±2, ±3,±5%	10 / 500MHz	5.5	0.70	250
6.8	±2, ±3,±5%	10 / 500MHz	5	0.75	250
7.4	±2, ±3,±5%	10 / 500MHz	5	0.80	200
8.2	±2, ±3,±5%	10 / 500MHz	4.5	0.90	200
9.1	±2, ±3,±5%	10 / 500MHz	4	1.05	175
9.2	±2, ±3,±5%	10 / 500MHz	4	1.15	150
10	±2, ±3,±5%	10 / 500MHz	3.5	1.30	150

Operating Temperature Range: -55°C to +125°C

Test Equipment: HP4287A+Agilent 16196C

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	10	0.05	850
0.2	±0.1, 0.2nH	14 / 500MHz	10	0.05	800
0.3	±0.1, 0.2, 0.3nH	14 / 500MHz	10	0.05	800
0.4	±0.1, 0.2, 0.3nH	14 / 500MHz	10	0.05	750
0.5	±0.1, 0.2, 0.3nH	14 / 500MHz	10	0.10	750
0.6	±0.1, 0.2, 0.3nH	14 / 500MHz	9	0.10	750
0.7	±0.1, 0.2, 0.3nH	14 / 500MHz	9	0.10	600
0.8	±0.1, 0.2, 0.3nH	14 / 500MHz	9	0.10	600
0.9	±0.1, 0.2, 0.3nH	14 / 500MHz	9	0.10	600
1.0	±0.1, 0.2, 0.3nH	14 / 500MHz	9	0.15	600
1.1	±0.1, 0.2, 0.3nH	14 / 500MHz	8	0.15	600
1.2	±0.1, 0.2, 0.3nH	14 / 500MHz	8	0.15	600
1.3	±0.1, 0.2, 0.3nH	14 / 500MHz	8	0.15	600
1.4	±0.1, 0.2, 0.3nH	14 / 500MHz	8	0.15	600
1.5	±0.1, 0.2, 0.3nH	14 / 500MHz	8	0.15	600
1.6	±0.1, 0.2, 0.3nH	14 / 500MHz	8	0.15	600
1.7	±0.1, 0.2, 0.3nH	14 / 500MHz	8	0.2	500
1.8	±0.1, 0.2, 0.3nH	14 / 500MHz	8	0.2	500
1.9	±0.1, 0.2, 0.3nH	14 / 500MHz	8	0.2	500
2.0	±0.1, 0.2, 0.3nH	14 / 500MHz	8	0.2	500
2.1	±0.1, 0.2, 0.3nH	14 / 500MHz	7.5	0.2	500
2.2	±0.1, 0.2, 0.3nH	14 / 500MHz	7.5	0.2	500
2.3	±0.1, 0.2, 0.3nH	14 / 500MHz	7.5	0.2	500
2.4	±0.1, 0.2, 0.3nH	14 / 500MHz	7.5	0.25	450
2.5	±0.1, 0.2, 0.3nH	14 / 500MHz	7.5	0.25	450
2.6	±0.1, 0.2, 0.3nH	14 / 500MHz	7.5	0.25	450
2.7	±0.1, 0.2, 0.3nH	14 / 500MHz	7.5	0.25	450
2.8	±0.1, 0.2, 0.3nH	14 / 500MHz	7.5	0.25	450
2.9	±0.1, 0.2, 0.3nH	14 / 500MHz	7.5	0.25	450
3.0	±0.1, 0.2, 0.3nH	14 / 500MHz	7.5	0.3	400
3.1	±0.1, 0.2, 0.3nH	14 / 500MHz	7	0.3	400
3.2	±0.1, 0.2, 0.3nH	14 / 500MHz	7	0.3	400
3.3	±0.1, 0.2, 0.3nH	14 / 500MHz	7	0.3	400
3.4	±0.1, 0.2, 0.3nH	14 / 500MHz	7	0.4	350
3.5	±0.1, 0.2, 0.3nH	14 / 500MHz	7	0.4	350
3.6	±0.1, 0.2, 0.3nH	14 / 500MHz	7	0.4	350
3.7	±0.1, 0.2, 0.3nH	14 / 500MHz	7	0.4	350
3.8	±0.1, 0.2, 0.3nH	14 / 500MHz	6.5	0.4	350
3.9	±0.1, 0.2, 0.3nH	14 / 500MHz	6.5	0.4	350
4.0	±0.1, 0.2, 0.3nH	14 / 500MHz	6.5	0.4	350
4.4	±0.1, 0.2, 0.3nH	14 / 500MHz	6.5	0.5	300
4.7	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.5	300
4.9	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.6	300
5.6	±2, ±5%	14 / 500MHz	6	0.6	250
6.1	±2, ±5%	14 / 500MHz	5.5	0.7	250
6.8	±2, ±5%	14 / 500MHz	5	0.75	250
7.4	±2, ±5%	14 / 500MHz	5	0.8	200
8.2	±2, ±5%	14 / 500MHz	4.5	0.9	200
9.1	±2, ±5%	14 / 500MHz	4	1.05	175
9.2	±2, ±5%	14 / 500MHz	4	1.15	150
10	±2, ±5%	14 / 500MHz	3.5	1.3	150

Operating Temperature Range: -55°C to +125°C

Test Equipment: HP4287A+Agilent 16196B

AL02 Chip Inductors / Standard Type

Inductance (nH)	Inductance Tolerance (nH or %)	Quality Factor min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.
0.2	±0.1, 0.2nH	13 / 500MHz	14	0.10	800
0.3	±0.1, 0.2, 0.3nH	13 / 500MHz	14	0.10	800
0.4	±0.1, 0.2, 0.3nH	13 / 500MHz	14	0.10	800
0.5	±0.1, 0.2, 0.3nH	13 / 500MHz	14	0.15	700
0.6	±0.1, 0.2, 0.3nH	13 / 500MHz	14	0.15	700
0.8	±0.1, 0.2, 0.3nH	13 / 500MHz	14	0.15	700
0.9	±0.1, 0.2, 0.3nH	13 / 500MHz	14	0.15	700
1.0	±0.1, 0.2, 0.3nH	13 / 500MHz	12	0.15	700
1.1	±0.1, 0.2, 0.3nH	13 / 500MHz	12	0.15	700
1.2	±0.1, 0.2, 0.3nH	13 / 500MHz	12	0.15	700
1.3	±0.1, 0.2, 0.3nH	13 / 500MHz	10	0.25	700
1.4	±0.1, 0.2, 0.3nH	13 / 500MHz	10	0.25	700
1.5	±0.1, 0.2, 0.3nH	13 / 500MHz	10	0.25	700
1.6	±0.1, 0.2, 0.3nH	13 / 500MHz	10	0.25	560
1.7	±0.1, 0.2, 0.3nH	13 / 500MHz	10	0.25	560
1.8	±0.1, 0.2, 0.3nH	13 / 500MHz	10	0.25	560
1.9	±0.1, 0.2, 0.3nH	13 / 500MHz	8	0.35	560
2.0	±0.1, 0.2, 0.3nH	13 / 500MHz	8	0.35	560
2.1	±0.1, 0.2, 0.3nH	13 / 500MHz	8	0.35	440
2.2	±0.1, 0.2, 0.3nH	13 / 500MHz	8	0.35	440
2.3	±0.1, 0.2, 0.3nH	13 / 500MHz	8	0.35	440
2.4	±0.1, 0.2, 0.3nH	13 / 500MHz	8	0.35	440
2.5	±0.1, 0.2, 0.3nH	13 / 500MHz	8	0.35	440
2.6	±0.1, 0.2, 0.3nH	13 / 500MHz	8	0.35	440
2.7	±0.1, 0.2, 0.3nH	13 / 500MHz	8	0.35	440
2.8	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.45	380
2.9	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.45	380
3.0	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.45	380
3.1	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.45	380
3.2	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.45	380
3.3	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.45	380
3.4	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.55	380
3.5	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.55	380
3.6	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.55	380
3.7	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.55	340
3.8	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.55	340
3.9	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.55	340
4.3	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.65	320
4.7	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.65	320
5.4	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.85	280
5.6	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.85	280
5.9	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.85	280
6.5	±0.1, 0.2, 0.3nH	13 / 500MHz	6	1.05	260
6.8	±0.1, 0.2, 0.3nH	13 / 500MHz	6	1.05	260
7.2	±0.1, 0.2, 0.3nH	13 / 500MHz	6	1.05	260
8.0	±0.1, 0.2, 0.3nH	13 / 500MHz	5.5	1.25	220
8.1	±0.1, 0.2, 0.3nH	13 / 500MHz	5.5	1.25	220
8.2	±0.1, 0.2, 0.3nH	13 / 500MHz	5.5	1.25	220
9.1	±0.1, 0.2, 0.3nH	13 / 500MHz	5.5	1.25	220
10.0	±1, 2, 3, 5%	13 / 500MHz	4.5	1.35	200
10.8	±1, 2, 3, 5%	13 / 500MHz	4.5	1.35	200
12.0	±1, 2, 3, 5%	13 / 500MHz	3.7	1.55	180
13.8	±1, 2, 3, 5%	13 / 500MHz	3.7	1.75	180
15.0	±1, 2, 3, 5%	13 / 500MHz	3.3	1.75	130
17.0	±1, 2, 3, 5%	13 / 500MHz	3.1	1.95	100
18.0	±1, 2, 3, 5%	13 / 500MHz	3.1	2.15	100
20.8	±1, 2, 3, 5%	13 / 500MHz	2.8	2.55	90
22.0	±1, 2, 3, 5%	13 / 500MHz	2.8	2.65	90
27.0	±1, 2, 3, 5%	13 / 500MHz	2.5	3.25	75
33.0	±5%	13 / 500MHz	2.5	4.50	75

Operating Temperature Range: -55°C to +125°C

Test Equipment: HP4287A+Agilent 16196B

AL02-02 Chip Inductors / High Q Type

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

Operating Temperature Range: -55°C to +125°C

Test Equipment: HP4287A+Agilent 16196B

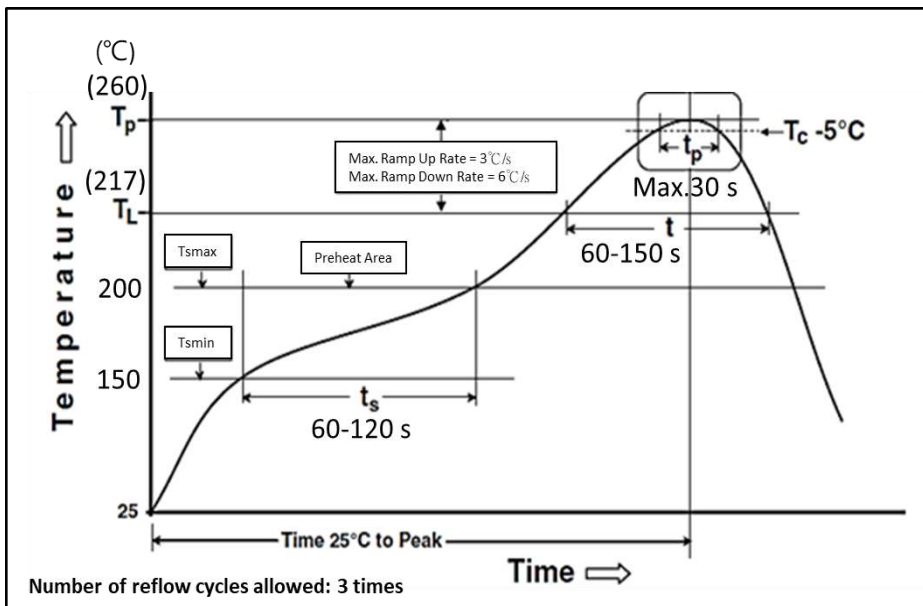
**■ Environmental Characteristics**

Item	Requirement	Test Method
Inductance	As Spec.	Measuring equipment and fixture: 0201: HP4287+Agilent 16196C 0402: HP4287+Agilent 16196B
Insulation Resistance	>1000MΩ	<b>MIL-STD-202 Method 302</b> Apply 100V <sub>DC</sub> for 1minute
Damp Heat with Load	$\Delta L \leq 10\%$	<b>MIL-STD-202 Method 103B</b> 40±2°C, 90~95% R.H. Max. working voltage for 1000 hrs with 1.5 hrs "ON" and 0.5 hrs "OFF"
Bending Strength	As Spec.	<b>JIS-C-5201-1 4.33</b> Bending amplitude 3 mm for 60 seconds.
Solderability	95% min. coverage	<b>MIL-STD-202 Method 208H</b> 245±5°C for 3 seconds
Resistance to Soldering Heat	$\Delta L \leq 10\%$	<b>MIL-STD-202 Method 210E</b> 260±5°C for 10 seconds
Dielectric Withstand Voltage	>100V	<b>MIL-STD-202 Method 301</b> Apply 100VA (rms) for 1minute
High Temperature Exposure	$\Delta L \leq 10\%$	<b>MIL-STD-202, Method 108</b> 125±3°C, 1000 hours
Low Temperature Storage	$\Delta L \leq 10\%$	<b>IEC 60068-2-1</b> Exposed to a temperature of -55±3°C for 2H
Temperature Cycle	$\Delta L \leq 10\%$	<b>JESD22 Method JA-104</b> -55°C to +125°C, 10 cycles

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

■ Shelf Life: 2 years from production date.

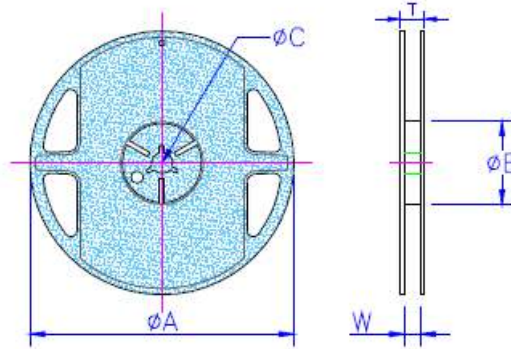
**■ Soldering Condition(IPC/JEDEC J-STD-020)**





**■ Packaging**

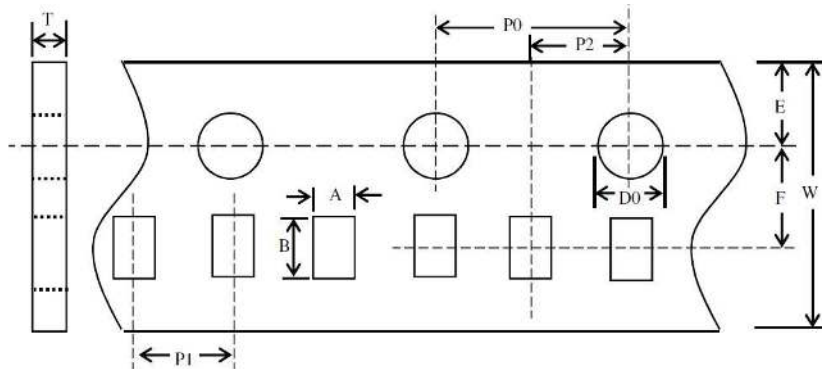
Reel Specifications & Packaging Quantity



Unit: mm

Type	$\psi A$	$\psi B$	$\psi C$	W	T	Quantity (EA)
AL01	178±1.0	60.0±1.0	13.5±0.70	9.5±1.0	11.5±1.0	10,000
AL02	178±1.0	60.0±1.0	13.5±0.70	9.5±1.0	11.5±1.0	10,000

Paper Tape Specifications



Unit: mm

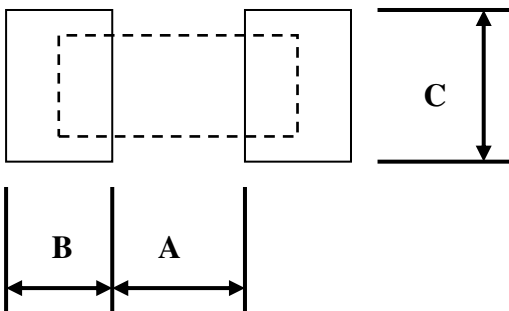
Type	A	B	W	E	F	P0	P1	P2	$\psi D0$	T
AL01	0.40±0.05	0.70±0.05	8.00±0.10	1.75±0.05	3.50±0.05	4.00±0.10	2.00±0.05	2.00±0.05	1.55±0.03	0.42±0.02
AL02	0.70±0.05	1.16±0.05	8.00±0.10	1.75±0.05	3.50±0.05	4.00±0.10	2.00±0.05	2.00±0.05	1.55±0.05	0.43±0.03

Remark : Test Method

Test direction : bar mark faces left

**■ Recommend Land Pattern**

Unit: mm



Type	A	B	C
AL01	0.30	0.25	0.30±0.2
AL02	0.50	0.45	0.60±0.2

**REVISION HISTORY**

<b>REVISION</b>	<b>DATE</b>	<b>CHANGE NOTIFICATION</b>	<b>DESCRIPTION</b>
Version C2	Feb. 27,2013	-	- Add AL01-02 (High Q) specification - Delete AL0603 series specification
Version C3	May 07,2015	-	- Modify SRF specifications of AL01-02 Type (from 6.0 to 6.5~10). - Add 4.4~10nH specifications of AL01-01 and AL01-02 Types.
Version C4	Jun. 02,2015	-	- Add AL02-02 Chip Inductors / High Q Type specification.
Version C5	Aug. 20,2015	-	- Note Operating Temperature Range and Test Equipment. - Correct the Inductance Tolerance for AL01-02 5.6~10 nH.
Version C6	May. 02, 2016	-	- Modify Storage Temperature. - Remove Material Description.
Version C7	Apr.05, 2017	-	- Modify Inductance Tolerance(nH or %). - Modify Paper Tape Specifications.
Version C8	Nov.11, 2017	-	- Correct the reference standard in Environmental Characteristics.
Version C9	Oct.21, 2020	-	- Change Operating Temperature Range. - Modify test methods and reference standard of Environmental Characteristics.
Version D	Jan.28, 2022	-	- Modify IR reflow profile to comply IPC/JEDEC J-STD-020. - Add shelf life description.

