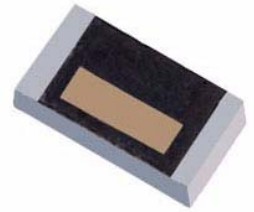


- Features:**
- A photo lithographic single layer ceramic chip
  - Provides high SRF, excellent Q, superior temperature stability
  - SRF controlled within 10%
  - Stable inductance in high frequency circuits
  - Highly stable design for critical needs
  - Tight tolerances of  $\pm 1\%$  down to  $\pm 0.1\text{nH}$  available
  - For inductance values outside those listed in the datasheet, contact factory
  - Find frequency curves, environmental and packaging specifications in relevant supplemental documents



- Applications:**
- Cellular phones
  - Pagers
  - GPS receiver
  - Bluetooth module
  - VCO and TCXO circuits
  - RF transceiver modules
  - Wireless LAN
  - Communication appliances

- Inductance and Current Ranges:**
- AL01 1 – 10 nH 300 – 80 mA
  - AL02 0.2 – 33 nH 800 – 75 mA
  - AL02 1 – 100 nH 800 – 100 mA

**New Part Number Format:**

**How to Order**

1	2	3	4	5	6	7	8	9	10	11	12
A	L	0	4	0	2	G	T	1	0	N	0

Product Series	
AL	Thin Film

Code	Size
0201	01
0402	02
0603	03

Tolerance	
Code	Tol
B	0.1%
C	0.25%
S	0.3%
F	1%
G	2%
H	3%
J	5%

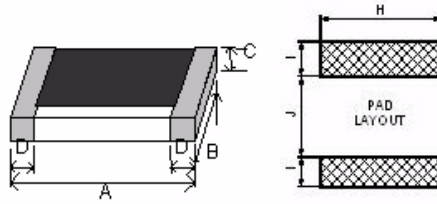
Code	Description	Size	Quantity
T	Tape & Reel	0201, 0402	10,000
		0603	5,000

Inductance	
Code	Inductance
0N20	0.2 nH
1N00	1 nH
10N0	10 nH
20N8	20.8 nH
R100	100 nH

Four characters with the multiplier used as the decimal holder.

**Legacy Part Number (before January 3, 2011):**

SEI Type		Dimensions		Tolerance		Packaging	Inductance		
<b>AL</b>		<b>02</b>		<b>G</b>		<b>T</b>	<b>10N</b>		
Type	Description	Code	EIA	Code	Tolerance				
AL	Thin Film	01	0201	B	$\pm 0.1\text{ nH}$				
		02	0402	C	$\pm 0.2\text{ nH}$				
		03	0603	S	$\pm 0.3\text{ nH}$				
				F	$\pm 1\%$				
				G	$\pm 2\%$				
				H	$\pm 3\%$				
				J	$\pm 5\%$				
						Code	Inductance		
						0N2	0.2 nH		
						1N0	1 nH		
						10N	10 nH		
						20N8	20.8 nH		
						R10	100 nH		



Mechanical Specifications - Standard								
Type / Code	A	B	C	D	H	I	J	Units
AL01	0.024 ± 0.002	0.012 ± 0.002	0.009 ± 0.002	0.006 ± 0.002	0.02	0.016	0.008	inches
	0.60 ± 0.05	0.30 ± 0.05	0.23 ± 0.05	0.15 ± 0.05	0.5	0.4	0.2	mm
AL02	0.039 ± 0.002	0.020 ± 0.002	0.013 ± 0.002	0.008 ± 0.004	0.026	0.02	0.018	inches
	1.00 ± 0.05	0.50 ± 0.05	0.32 ± 0.05	0.20 ± 0.10	0.66	0.5	0.46	mm
AL03	0.063 ± 0.004	0.032 ± 0.004	0.018 ± 0.004	0.012 ± 0.008	0.04	0.025	0.025	inches
	1.60 ± 0.10	0.80 ± 0.10	0.45 ± 0.10	0.30 ± 0.20	1.02	0.64	0.64	mm

Electrical Characteristics – AL01							
Part Number	L (nH)	Q Factor /Min	Test Freq (MHz)	Tolerance (% or nH)	SRF (GHz)	DCR (Ω) Max	I DC (mA) Max
AL01-T1N0	1.0	8	500	0.1nH, 0.2nH	9	0.30	300
AL01-T1N1	1.1	8	500	0.1nH, 0.2nH	9	0.35	300
AL01-T1N2	1.2	8	500	0.1nH, 0.2nH	9	0.35	300
AL01-T1N3	1.3	8	500	0.1nH, 0.2nH	9	0.45	250
AL01-T1N4	1.4	8	500	0.1nH, 0.2nH	9	0.45	250
AL01-T1N5	1.5	8	500	0.1nH, 0.2nH	9	0.45	250
AL01-T1N6	1.6	8	500	0.1nH, 0.2nH	9	0.55	200
AL01-T1N7	1.7	8	500	0.1nH, 0.2nH	9	0.55	200
AL01-T1N8	1.8	8	500	0.1nH, 0.2nH	9	0.55	200
AL01-T1N9	1.9	8	500	0.1nH, 0.2nH	9	0.55	200
AL01-T2N0	2.0	8	500	0.1nH, 0.2nH	8	0.70	200
AL01-T2N1	2.1	8	500	0.1nH, 0.2nH	8	0.70	200
AL01-T2N2	2.2	8	500	0.1nH, 0.2nH	8	0.70	200
AL01-T2N3	2.3	8	500	0.1nH, 0.2nH	8	0.80	150
AL01-T2N4	2.4	8	500	0.1nH, 0.2nH	8	0.80	150
AL01-T2N5	2.5	8	500	0.1nH, 0.2nH	8	0.80	150
AL01-T2N6	2.6	8	500	0.1nH, 0.2nH	8	0.80	150
AL01-T2N7	2.7	8	500	0.1nH, 0.2nH	8	0.80	150
AL01-T2N8	2.8	8	500	0.1nH, 0.2nH	6	1.00	150
AL01-T2N9	2.9	8	500	0.1nH, 0.2nH	6	1.00	150
AL01-T3N0	3.0	8	500	0.1nH, 0.2nH	6	1.00	150
AL01-T3N1	3.1	8	500	0.1nH, 0.2nH	6	1.00	150
AL01-T3N2	3.2	8	500	0.1nH, 0.2nH	6	1.00	150
AL01-T3N3	3.3	8	500	0.1nH, 0.2nH	6	1.00	150
AL01-T3N4	3.4	8	500	0.1nH, 0.2nH	6	1.20	150
AL01-T3N5	3.5	8	500	0.1nH, 0.2nH	6	1.20	150
AL01-T3N6	3.6	8	500	0.1nH, 0.2nH	6	1.20	150
AL01-T3N7	3.7	8	500	0.1nH, 0.2nH	6	1.20	150
AL01-T3N9	3.9	8	500	0.1nH, 0.2nH	6	1.20	150
AL01-T4N7	4.7	8	500	0.1nH, 0.2nH	6	1.40	130
AL01-T5N6	5.6	8	500	2%, 5%	4	1.80	130
AL01-T6N8	6.8	8	500	2%, 5%	4	2.30	110
AL01-T8N2	8.2	8	500	2%, 5%	3	3.00	110
AL01-T10N	10.0	8	500	2%, 5%	2	3.50	80

**Electrical Characteristics – AL02**

Part Number	L (nH)	Q Factor /Min	Test Freq (MHz)	Tolerance (% or nH)	SRF (GHz)	DCR (Ω) Max	I DC (mA) Max
AL02-T0N2	0.2	13	500	0.1nH, 0.2nH, 0.3nH	14.0	0.10	800
AL02-T0N4	0.4	13	500	0.1nH, 0.2nH, 0.3nH	14.0	0.10	800
AL02-T0N8	0.8	13	500	0.1nH, 0.2nH, 0.3nH	14.0	0.15	700
AL02-T1N0	1.0	13	500	0.1nH, 0.2nH, 0.3nH	12.0	0.15	700
AL02-T1N1	1.1	13	500	0.1nH, 0.2nH, 0.3nH	12.0	0.15	700
AL02-T1N2	1.2	13	500	0.1nH, 0.2nH, 0.3nH	12.0	0.15	700
AL02-T1N3	1.3	13	500	0.1nH, 0.2nH, 0.3nH	10.0	0.25	700
AL02-T1N4	1.4	13	500	0.1nH, 0.2nH, 0.3nH	10.0	0.25	700
AL02-T1N5	1.5	13	500	0.1nH, 0.2nH, 0.3nH	10.0	0.25	700
AL02-T1N6	1.6	13	500	0.1nH, 0.2nH, 0.3nH	10.0	0.25	560
AL02-T1N7	1.7	13	500	0.1nH, 0.2nH, 0.3nH	10.0	0.25	560
AL02-T1N8	1.8	13	500	0.1nH, 0.2nH, 0.3nH	10.0	0.25	560
AL02-T1N9	1.9	13	500	0.1nH, 0.2nH, 0.3nH	10.0	0.35	560
AL02-T2N0	2.0	13	500	0.1nH, 0.2nH, 0.3nH	8.0	0.35	560
AL02-T2N1	2.1	13	500	0.1nH, 0.2nH, 0.3nH	8.0	0.35	440
AL02-T2N2	2.2	13	500	0.1nH, 0.2nH, 0.3nH	8.0	0.35	440
AL02-T2N3	2.3	13	500	0.1nH, 0.2nH, 0.3nH	8.0	0.35	440
AL02-T2N4	2.4	13	500	0.1nH, 0.2nH, 0.3nH	8.0	0.35	440
AL02-T2N5	2.5	13	500	0.1nH, 0.2nH, 0.3nH	8.0	0.35	440
AL02-T2N6	2.6	13	500	0.1nH, 0.2nH, 0.3nH	8.0	0.35	440
AL02-T2N7	2.7	13	500	0.1nH, 0.2nH, 0.3nH	8.0	0.35	440
AL02-T2N8	2.8	13	500	0.1nH, 0.2nH, 0.3nH	6.0	0.45	380
AL02-T2N9	2.9	13	500	0.1nH, 0.2nH, 0.3nH	6.0	0.45	380
AL02-T3N0	3.0	13	500	0.1nH, 0.2nH, 0.3nH	6.0	0.45	380
AL02-T3N1	3.1	13	500	0.1nH, 0.2nH, 0.3nH	6.0	0.45	380
AL02-T3N2	3.2	13	500	0.1nH, 0.2nH, 0.3nH	6.0	0.45	380
AL02-T3N3	3.3	13	500	0.1nH, 0.2nH, 0.3nH	6.0	0.45	380
AL02-T3N4	3.4	13	500	0.1nH, 0.2nH, 0.3nH	6.0	0.55	380
AL02-T3N5	3.5	13	500	0.1nH, 0.2nH, 0.3nH	6.0	0.55	380
AL02-T3N6	3.6	13	500	0.1nH, 0.2nH, 0.3nH	6.0	0.55	380
AL02-T3N7	3.7	13	500	0.1nH, 0.2nH, 0.3nH	6.0	0.55	340
AL02-T3N8	3.8	13	500	0.1nH, 0.2nH, 0.3nH	6.0	0.55	340
AL02-T3N9	3.9	13	500	0.1nH, 0.2nH, 0.3nH	6.0	0.55	340
AL02-T4N7	4.7	13	500	0.1nH, 0.2nH, 0.3nH	6.0	0.65	320
AL02-T5N6	5.6	13	500	0.1nH, 0.2nH, 0.3nH	6.0	0.85	280
AL02-T5N9	5.9	13	500	0.1nH, 0.2nH, 0.3nH	6.0	0.85	280
AL02-T6N8	6.8	13	500	0.1nH, 0.2nH, 0.3nH	6.0	1.05	260
AL02-T7N2	7.2	13	500	0.1nH, 0.2nH, 0.3nH	6.0	1.05	260
AL02-T8N0	8.0	13	500	0.1nH, 0.2nH, 0.3nH	5.5	1.25	220
AL02-T8N2	8.2	13	500	0.1nH, 0.2nH, 0.3nH	5.5	1.25	220
AL02-T9N1	9.1	13	500	0.1nH, 0.2nH, 0.3nH	5.5	1.25	220
AL02-T10N	10.0	13	500	1%, 2%, 3%, 5%	4.5	1.35	200
AL02-T12N	12.0	13	500	1%, 2%, 3%, 5%	3.7	1.55	180
AL02-T13N8	13.8	13	500	1%, 2%, 3%, 5%	3.7	1.75	180
AL02-T15N	15.0	13	500	1%, 2%, 3%, 5%	3.3	1.75	130
AL02-T17N	17.0	13	500	1%, 2%, 3%, 5%	3.1	1.95	100
AL02-T18N	18.0	13	500	1%, 2%, 3%, 5%	3.1	2.15	100
AL02-T20N8	20.8	13	500	1%, 2%, 3%, 5%	2.8	2.55	90
AL02-T22N	22.0	13	500	1%, 2%, 3%, 5%	2.8	2.65	90
AL02-T27N	27.0	13	500	1%, 2%, 3%, 5%	2.5	3.25	75
AL02-T33N	33.0	13	500	5%	2.5	4.50	75

**Electrical Characteristics – AL03**

Part Number	L (nH)	Q Factor /Min	Test Freq (MHz)	Tolerance (% or nH)	SRF (GHz)	DCR (Ω) Max	I DC (mA) Max
AL03-T1N0	1.0	15	300	0.1nH, 0.2nH	13.0	0.35	800
AL03-T1N2	1.2	15	300	0.1nH, 0.2nH	13.0	0.35	800
AL03-T1N5	1.5	15	300	0.1nH, 0.2nH	10.0	0.35	800
AL03-T1N8	1.8	15	300	0.1nH, 0.2nH	10.0	0.35	300
AL03-T2N2	2.2	15	300	0.1nH, 0.2nH	8.0	0.35	300
AL03-T2N7	2.7	15	300	0.1nH, 0.2nH	6.0	0.45	300
AL03-T3N3	3.3	15	300	0.1nH, 0.2nH	6.0	0.45	300
AL03-T3N9	3.9	15	300	0.1nH, 0.2nH	6.0	0.45	300
AL03-T4N7	4.7	15	300	0.1nH, 0.2nH	5.0	0.55	300
AL03-T5N6	5.6	15	300	0.1nH, 0.2nH	5.0	0.65	300
AL03-T6N8	6.8	15	300	0.1nH, 0.2nH	5.0	0.75	300
AL03-T8N2	8.2	15	300	0.1nH, 0.2nH	4.0	0.95	300
AL03-T10N	10.0	15	300	1%, 2%, 3%, 5%	4.0	0.95	300
AL03-T12N	12.0	15	300	1%, 2%, 3%, 5%	3.0	1.05	300
AL03-T15N	15.0	15	300	1%, 2%, 3%, 5%	3.0	1.35	300
AL03-T18N	18.0	15	300	1%, 2%, 3%, 5%	2.0	1.65	300
AL03-T22N	22.0	15	300	1%, 2%, 3%, 5%	2.0	1.95	250
AL03-T27N	27.0	15	300	1%, 2%, 3%, 5%	2.0	2.35	250
AL03-T33N	33.0	15	300	1%, 2%, 3%, 5%	1.5	2.75	250
AL03-T39N	39.0	15	300	1%, 2%, 3%, 5%	1.5	3.00	200
AL03-T47N	47.0	15	300	1%, 2%, 3%, 5%	1.5	3.00	200
AL03-T56N	56.0	15	300	1%, 2%, 3%, 5%	1.0	5.00	150
AL03-T68N	68.0	15	300	1%, 2%, 3%, 5%	1.0	5.00	150
AL03-TR10	100.0	15	300	2%, 3%, 5%	1.0	7.50	100