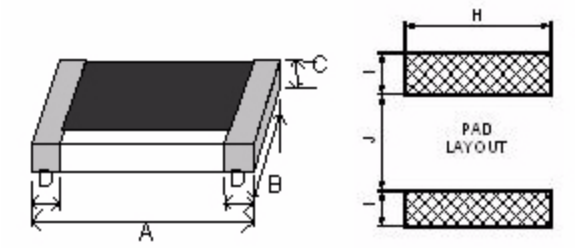
CL Series
Multilayer Chip Inductor

Stackpole Electronics, Inc.
Resistive Product Solutions

Features:
- Provides tight tolerances and excellent Q values
- Tight physical dimension tolerances
- Stable inductance in high frequency circuits (~10GHz)
- For inductance values outside those listed in the datasheet contact factory
- Find environmental information and packaging specs in related supplemental documents

Applications:
- Cellular phones
- Pagers
- GPS receiver
- Bluetooth module
- EMI countermeasures for HF circuit
- RF transceiver modules
- Wireless LAN
- Communication appliances

Inductance and Current Ranges		
CL02	1 ~ 100 nH	300 ~ 100 mA
CL03	1 ~ 100 nH	500 ~ 300 mA
CL05	1 ~ 100 nH	300 mA



Mechanical Specifications - Standard								
Type / Code	**A**	**B**	**C**	**D**	**H**	**I**	**J**	**Units**
CL02	0.04 ± 0.004 1 ± 0.1	0.02 ± 0.004 0.5 ± 0.1	0.02 ± 0.004 0.5 ± 0.1	0.008 ± 004 0.2 ± 0.1	0.026 0.66	0.02 0.5	0.018 0.46	inches mm
CL03	0.063 ± 0.006 1.6 ± 0.15	0.032 ± 0.006 0.8 ± 0.15	0.032 ± 0.006 0.8 ± 0.15	0.014 ± 0.004 0.35 ± 0.1	0.04 1.02	0.025 0.64	0.025 0.64	inches mm
CL05	0.079 ± 0.008 2 ± 0.15	0.047 ± 0.008 1.2 ± 0.2	0.035 ± 0.008 0.9 ± 0.2	0.02 ± 0.004 0.5 ± 0.1	0.07 1.78	0.04 1.02	0.03 0.76	inches mm

How to Order

SEI Type	Dimensions	Tolerance	Packaging	Inductance
CL	**02**	**J**	**T**	**10N**

Type	Description
CL	Multilayer

Code	EIA
02	0402
03	0603
05	0805

Code	Tolerance
S	±0.3 nH
J	±5%
k	±10%

Code	Inductance
0N2	0.2 nH
1N0	1 nH
10N	10 nH
20N8	20.8 nH
R10	100 nH

Electrical Characteristics – CL02										
Part Number	L (nH)	Q Factor Min.	Test Freq (MHz)	Tolerance (nH or %)	SRF (GHz)	DCR (Ω) Max	I DC (mA) Max	Q Typical (MHz)		
								100	500	800
CL02-T1N0	1	8	100	±0.3nH	10.00	0.12	300	11	33	37
CL02-T1N2	1.2	8	100	±0.3nH	10.00	0.12	300	11	29	26
CL02-T1N5	1.5	8	100	±0.3nH	6.00	0.13	300	12	29	40
CL02-T1N8	1.8	8	100	±0.3nH	6.00	0.14	300	11	26	34
CL02-T2N2	2.2	8	100	±0.3nH	6.00	0.16	300	11	26	36
CL02-T2N7	2.7	8	100	±0.3nH	6.00	0.17	300	12	29	38
CL02-T3N3	3.3	8	100	±0.3nH, 5%, 10%	6.00	0.19	300	11	28	37
CL02-T3N9	3.9	8	100	±0.3nH, 5%, 10%	4.00	0.22	300	11	26	32
CL02-T4N7	4.7	8	100	±0.3nH, 5%, 10%	4.00	0.24	300	12	28	37
CL02-T5N6	5.6	8	100	±0.3nH, 5%, 10%	4.00	0.27	300	11	26	35
CL02-T6N8	6.8	8	100	5%, 10%	3.90	0.32	300	11	26	34
CL02-T8N2	8.2	8	100	5%, 10%	3.50	0.37	300	12	26	36
CL02-T10N	10	8	100	5%, 10%	3.20	0.42	300	11	25	31
CL02-T12N	12	8	100	5%, 10%	2.60	0.50	300	11	25	31
CL02-T15N	15	8	100	5%, 10%	2.30	0.55	300	11	24	30
CL02-T18N	18	8	100	5%, 10%	2.00	0.65	300	11	24	30
CL02-T22N	22	8	100	5%, 10%	1.60	0.80	300	12	24	30
CL02-T27N	27	8	100	5%, 10%	1.40	0.90	300	11	24	28
CL02-T33N	33	8	100	5%, 10%	1.20	1.00	200	12	23	26
CL02-T39N	39	8	100	5%, 10%	1.10	1.20	150	11	21	24
CL02-T47N	47	8	100	5%, 10%	0.90	1.30	150	11	21	23
CL02-T56N	56	8	100	5%, 10%	0.75	2.00	150	12	21	21
CL02-T68N	68	8	100	5%, 10%	0.75	2.20	100	11	19	19
CL02-T82N	82	8	100	5%, 10%	0.60	2.50	100	10	19	16
CL02-TR10	100	8	100	5%, 10%	0.60	2.50	100	10	18	-

Electrical Characteristics – CL 03										
Part Number	L (nH)	Q Factor Min.	Test Freq (MHz)	Tolerance (nH or %)	SRF (GHz)	DCR (Ω) Max	I DC (mA) Max	Q Typical (MHz)		
								100	500	800
CL03-T1N0	1	8	100	±0.3nH	6.00	0.10	500	15	36	49
CL03-T1N2	1.2	8	100	±0.3nH	6.00	0.10	500	15	36	49
CL03-T1N5	1.5	8	100	±0.3nH	6.00	0.10	500	14	34	47
CL03-T1N8	1.8	8	100	±0.3nH	6.00	0.10	500	17	40	55
CL03-T2N2	2.2	8	100	±0.3nH	6.00	0.10	500	15	38	49
CL03-T2N7	2.7	8	100	±0.3nH	6.00	0.10	500	14	37	48
CL03-T3N3	3.3	10	100	±0.3nH, 5%, 10%	6.00	0.13	500	16	40	51
CL03-T3N9	3.9	10	100	±0.3nH, 5%, 10%	6.00	0.15	500	14	36	48
CL03-T4N7	4.7	10	100	±0.3nH, 5%, 10%	4.00	0.20	500	14	37	48
CL03-T5N6	5.6	10	100	±0.3nH, 5%, 10%	4.00	0.23	500	14	36	46
CL03-T6N8	6.8	10	100	5%, 10%	3.75	0.25	500	15	37	48
CL03-T8N2	8.2	10	100	5%, 10%	3.30	0.28	500	16	39	50
CL03-T10N	10	12	100	5%, 10%	3.00	0.30	300	16	37	47
CL03-T12N	12	12	100	5%, 10%	2.60	0.35	300	15	36	45
CL03-T15N	15	12	100	5%, 10%	2.30	0.40	300	16	38	48
CL03-T18N	18	12	100	5%, 10%	2.00	0.45	300	17	38	47
CL03-T22N	22	12	100	5%, 10%	1.60	0.50	300	18	40	49
CL03-T27N	27	12	100	5%, 10%	1.40	0.55	300	18	40	47
CL03-T33N	33	12	100	5%, 10%	1.20	0.60	300	17	40	46
CL03-T39N	39	12	100	5%, 10%	1.10	0.65	300	19	40	46
CL03-T47N	47	12	100	5%, 10%	0.90	0.70	300	17	36	39
CL03-T56N	56	12	100	5%, 10%	0.90	0.75	300	18	36	37
CL03-T68N	68	12	100	5%, 10%	0.70	0.85	300	18	35	36
CL03-T82N	82	12	100	5%, 10%	0.60	1.00	300	18	33	29
CL03-TR10	100	12	100	5%, 10%	0.60	1.20	300	18	28	16

Electrical Characteristics – CL05							
Part Number	L (nH)	Q Factor Min.	Test Freq (MHz)	Tolerance (nH or %)	SRF (GHz)	DCR (Ω) Max	I DC (mA) Max
CL05-T1N0	1	10	100	±0.3nH	6.00	0.10	300
CL05-T1N2	1.2	10	100	±0.3nH	6.00	0.10	300
CL05-T1N5	1.5	10	100	±0.3nH	6.00	0.10	300
CL05-T1N8	1.8	10	100	±0.3nH	6.00	0.10	300
CL05-T2N2	2.2	10	100	±0.3nH	6.00	0.10	300
CL05-T2N7	2.7	12	100	±0.3nH	6.00	0.10	300
CL05-T3N3	3.3	12	100	±0.3nH, 5%, 10%	6.00	0.13	300
CL05-T3N9	3.9	12	100	±0.3nH, 5%, 10%	5.40	0.15	300
CL05-T4N7	4.7	12	100	±0.3nH, 5%, 10%	4.50	0.20	300
CL05-T5N6	5.6	12	100	±0.3nH, 5%, 10%	4.00	0.23	300
CL05-T6N8	6.8	15	100	5%, 10%	3.65	0.25	300
CL05-T8N2	8.2	15	100	5%, 10%	3.00	0.28	300
CL05-T10N	10	15	100	5%, 10%	2.50	0.30	300
CL05-T12N	12	15	100	5%, 10%	2.45	0.35	300
CL05-T15N	15	15	100	5%, 10%	2.00	0.40	300
CL05-T18N	18	15	100	5%, 10%	1.75	0.45	300
CL05-T22N	22	15	100	5%, 10%	1.70	0.50	300
CL05-T27N	27	15	100	5%, 10%	1.55	0.55	300
CL05-T33N	33	15	100	5%, 10%	1.35	0.60	300
CL05-T39N	39	18	100	5%, 10%	1.30	0.65	300
CL05-T47N	47	18	100	5%, 10%	1.20	0.70	300
CL05-T56N	56	18	100	5%, 10%	1.15	0.75	300
CL05-T68N	68	18	100	5%, 10%	1.00	0.80	300
CL05-T82N	82	18	100	5%, 10%	0.85	0.90	300
CL05-TR10	100	18	100	5%, 10%	0.73	1.00	300