

Wound Chip Inductors (Ferrite) – NL Series



These revolutionary, highly reliable wound chip inductors for automatic mounting, have been developed in response to the trend toward high density in electronic equipment.

With metal terminals and a body of heat resistant resin, these inductors offer many superior features.

Feature

- Very strong solderability by flow soldering, soldering iron or wave soldering.
- Highly accurate dimensions, can be mounted automatically.
- Terminals are highly resistant to pull forces.
- Highly resistant to mechanical shocks and pressure.
- Highly reliable in environments of sudden temperature change and humidity. Super Q characteristics.

Application

- Micro televisions, liquid crystal televisions, video cameras, portable VCRs, car radios, car stereos, thin tape radios, television tuners, mobile telephones, radio and other electronic devices.

Part Numbering

NL	05	K	T	C	1R0
①	②	③	④	⑤	⑥

Product Type

Product Type	
NL	Wound Chip Inductor (Ferrite)

Dimensions (L×W×H)

Codes	Dimensions (L×W×H) mm	EIA
05	2.0×1.2	0805
08	2.5×2.0	1008
10	3.2×2.5	1210
12	4.5×3.2	1812
20	5.6×5.0	2220

Inductance Tolerance

Code	Type
J	5%
K	10%

Packaging

Code	Type
T	Taping Reel

Current

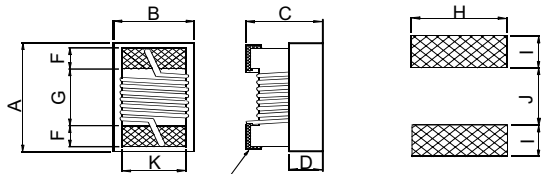
Code	Type
	Standard
C	Large current

Inductance

Codes	Inductance
R12	120nH
R27	270nH
2R7	2700nH
100	10μH

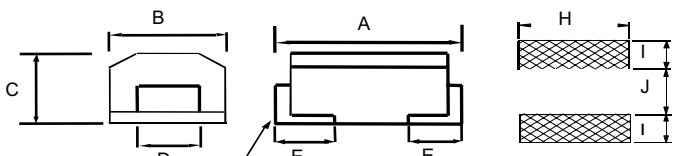
Dimensions

Figure 1



Terminal Wraparound:

Figure 2



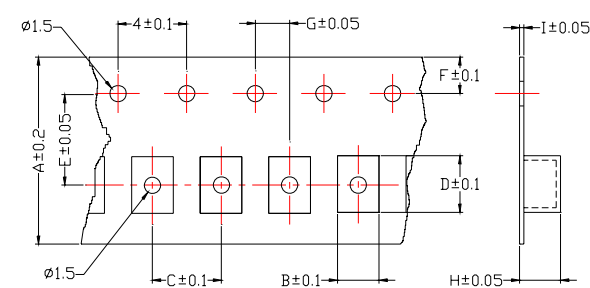
Terminal Wraparound:

Unit: mm

Part No.	Size	Figure	A Max.	B Max.	C Max.	D Ref.	E	F	G	K Max	H Max	I Max	J Max
NL05	0805	1	2.29	1.71	1.45	0.51	-	0.44	1.02	1.27	1.78	1.02	0.76
NL08	1008	1	2.92	2.79	2.10	1.20	-	0.45	1.52	2.03	2.54	1.02	1.27
NL10	1210	2	3.50	2.80	2.50	1.40	0.6	-	-	-	2.00	1.20	1.60
NL12	1812	2	4.80	3.50	3.50	1.80	0.9	-	-	-	2.80	1.50	3.00
NL20	2220	2	5.90	5.20	5.20	2.10	1.3	-	-	-	4.50	2.00	4.00
NL08 (C)	1008	1	2.92	2.79	2.10	1.20	-	0.51	1.52	2.03	2.54	1.02	1.27
NL12 (C)	1812	2	4.80	3.50	3.50	1.40	0.9	-	-	-	2.80	1.50	3.00
NL20 (C)	2220	2	5.90	5.20	5.20	1.80	1.3	-	-	-	4.50	2.00	4.00

Packaging

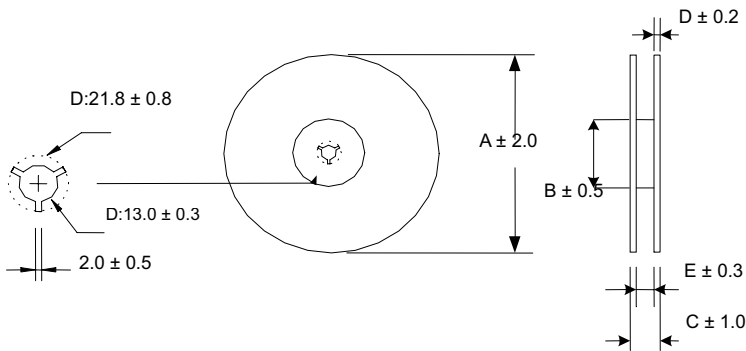
Tape Dimensions



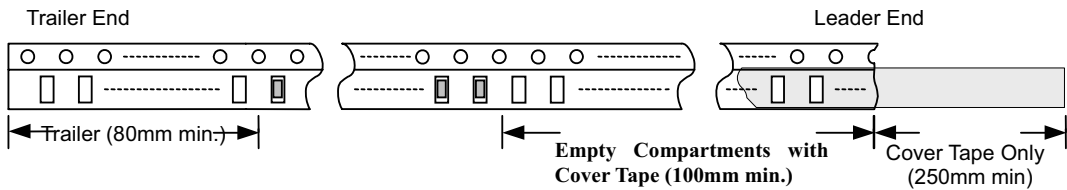
Unit: mm

TYPE	Tape Dimensions									Reel Dimensions					Quantity /Reel
	A	B	C	D	E	F	G	H	I	A	B	C	D	E	
NL05(201614)	8	1.85	4	2.45	3.5	1.75	2	1.45	0.23	178	60	12	1.5	9	2000
NL08(252018)	8	2.80	4	2.95	3.5	1.75	2	2.22	0.23	178	60	12	1.5	9	2000
NL10(322522)	8	2.96	4	3.60	3.5	1.75	2	2.40	0.23	178	60	12	1.5	9	2000
NL12(453232)	12	3.30	8	5.00	5.5	1.75	2	3.50	0.30	178	60	16	1.4	13.2	500
NL20(565050)	16	5.35	12	6.10	7.5	1.75	2	5.50	0.35	330	80	22	2.3	17.4	1000

Reel Dimensions (Unit: mm)

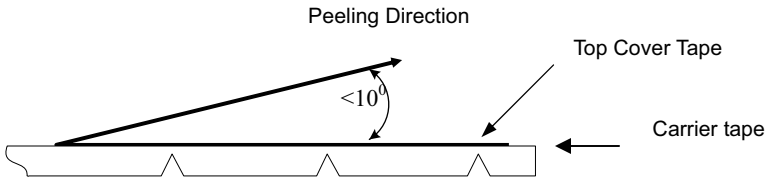


Leader / Trailer Tape (Unit: mm)



Peel-off Force

Peel-off force should be in the range of 0.1~0.6N at a peel-off speed of 300 ± 10 mm/min



Environmental Characteristics

1-1 Mechanical Performance

No	Item	Specification	Test Method
1-1-1	Vibration	Appearance: No damage L change: within $\pm 10\%$ Q change: within $\pm 30\%$ RDC: within specification	Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55 to 10Hz for 1min Amplitude: 1.5mm Time: 2hrs for each axis (X, Y & Z), total 6hrs
1-1-2	Resistance to Soldering Heat	Appearance: No damage	Pre-heating: 150°C, 1min Solder Temperature: 260 ± 5 °C Immersion Time: 10 ± 1 sec
1-1-3	Solderability	The electrodes shall be at least 90% covered with new solder coating	Lead-free inductor: after fluxing(alpha 100 or equiv), inductor shall be dipped in a melted solder bath at 245 ± 5 °C, 5 ± 0.5 seconds.

1-2 Environmental Performance

1.2 Environmental Performance																		
No	Item	Specification	Test Method															
1-2-1	Temperature Cycle	Appearance: No damage L change: within±10% Q change: within±30% RDC: within specification	One cycle: <table><tr><th>Step</th><th>Temperature (℃)</th><th>Time (min)</th></tr><tr><td>1</td><td>-25±3</td><td>30</td></tr><tr><td>2</td><td>25±2</td><td>3</td></tr><tr><td>3</td><td>85±3</td><td>30</td></tr><tr><td>4</td><td>25±2</td><td>3</td></tr></table> Total: 100cycles Measured after exposure in the room condition for 24hrs	Step	Temperature (℃)	Time (min)	1	-25±3	30	2	25±2	3	3	85±3	30	4	25±2	3
Step	Temperature (℃)	Time (min)																
1	-25±3	30																
2	25±2	3																
3	85±3	30																
4	25±2	3																
1-2-2	Humidity Resistance		Temperature: 40±2℃ Relative Humidity: 90 ~ 95% Time: 1000hrs Measured after exposure in the room condition for 24hrs															
1-2-3	High Temperature Resistance		Temperature: 85±3℃ Relative Humidity: 20% Applied Current: Rated Current Time: 1000hrs Measured after exposure in the room condition for 24hrs															
1-2-4	Low Temperature Resistance		Temperature: -25±3℃ Relative Humidity: 0% Time: 1000hrs Measured after exposure in the room condition for 24hrs															

Standard Electrical Specifications

■ Wound Chip Inductors (Ferrite) – NL05 Series (0805)



Part Number	Inductance (μH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	Self Resonant Frequency (MHz)Min	DC Resistance (Ω)max	Rated current (mA)max
NL05□TR12	0.12	J,K	20	25.2	700	0.18	1100
NL05□TR15	0.15	J,K	20	25.2	900	0.18	1100
NL05□TR18	0.18	J,K	20	25.2	600	0.20	800
NL05□TR22	0.22	J,K	20	25.2	550	0.25	700
NL05□TR27	0.27	J,K	20	25.2	550	0.30	700
NL05□TR33	0.33	J,K	20	25.2	550	0.35	650
NL05□TR39	0.39	J,K	20	25.2	420	0.35	600
NL05□TR47	0.47	J,K	20	25.2	350	0.45	600
NL05□TR56	0.56	J,K	20	25.2	300	0.45	550
NL05□TR68	0.68	J,K	20	25.2	300	0.60	500
NL05□TR82	0.82	J,K	20	25.2	300	0.55	500
NL05□T1R0	1.00	J,K	15	7.96	280	0.80	450
NL05□T1R2	1.20	J,K	15	7.96	280	0.90	400
NL05□T1R5	1.50	J,K	15	7.96	250	1.05	350
NL05□T1R8	1.80	J,K	15	7.96	120	0.90	350
NL05□T2R2	2.20	J,K	15	7.96	110	1.10	320
NL05□T2R7	2.70	J,K	15	7.96	70	1.20	320
NL05□T3R3	3.30	J,K	15	7.96	60	1.50	300
NL05□T3R9	3.90	J,K	15	7.96	55	1.60	300
NL05□T4R7	4.70	J,K	15	7.96	45	2.10	200
NL05□T5R6	5.60	J,K	15	7.96	40	2.30	250
NL05□T6R8	6.80	J,K	15	7.96	36	2.70	200
NL05□T8R2	8.20	J,K	15	7.96	33	3.30	180
NL05□T100	10	J,K	10	2.52	30	4.00	180

1.DC current at which the inductance drops 10%(typ) from its value without current.

2.Operating temperature range -25℃ to 85℃.

3.Tolerance: J = ±5%, K = ±10%

4.Packaging: Clear tape and reel (standard)

5. L , Q : HP4291 for 0.12uH~82uH

6.SRF: HP4291

7.RDC: AX-1152B

Standard Electrical Specifications

■ Wound Chip Inductors (Ferrite) – NL08 Series (1008)



Part Number	Inductance (μH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	Self Resonant Frequency (MHz)Min	DC Resistance (Ω) max.	Rated current (mA) max.
NL08□TR12	0.12	J,K	30	25.2	800	0.10	1200
NL08□TR15	0.15	J,K	30	25.2	800	0.15	1200
NL08□TR18	0.18	J,K	30	25.2	600	0.20	1200
NL08□TR22	0.22	J,K	30	25.2	600	0.25	1200
NL08□TR27	0.27	J,K	30	25.2	425	0.30	1200
NL08□TR33	0.33	J,K	30	25.2	400	0.20	1100
NL08□TR39	0.39	J,K	30	25.2	375	0.40	1000
NL08□TR47	0.47	J,K	30	25.2	350	0.45	900
NL08□TR56	0.56	J,K	30	25.2	325	0.30	850
NL08□TR68	0.68	J,K	30	25.2	300	0.40	800
NL08□TR82	0.82	J,K	30	25.2	260	0.45	800
NL08□T1R0	1.0	J,K	25	7.96	245	0.50	800
NL08□T1R2	1.2	J,K	25	7.96	230	0.55	800
NL08□T1R5	1.5	J,K	25	7.96	182	0.65	750
NL08□T1R8	1.8	J,K	25	7.96	135	0.80	750
NL08□T2R2	2.2	J,K	25	7.96	105	0.95	750
NL08□T2R7	2.7	J,K	25	7.96	70	1.05	750
NL08□T3R3	3.3	J,K	25	7.96	55	1.15	730
NL08□T3R9	3.9	J,K	25	7.96	48	1.25	700
NL08□T4R7	4.7	J,K	25	7.96	43	1.28	650
NL08□T5R6	5.6	J,K	25	7.96	42	1.35	640
NL08□T6R8	6.8	J,K	25	7.96	39	1.60	630
NL08□T8R2	8.2	J,K	25	7.96	36	1.80	600
NL08□T100	10	J,K	20	2.52	33	2.30	600
NL08□T120	12	J,K	20	2.52	28	2.40	550
NL08□T150	15	J,K	20	2.52	24	2.70	450
NL08□T180	18	J,K	20	2.52	20	2.80	400
NL08□T220	22	J,K	20	2.52	18	3.30	400
NL08□T270	27	J,K	20	2.52	17	3.50	360
NL08□T330	33	J,K	20	2.52	16	4.00	350
NL08□T390	39	J,K	18	2.52	15	5.50	330
NL08□T470	47	J,K	18	2.52	14	5.90	300
NL08□T560	56	J,K	18	2.52	13	6.80	270
NL08□T680	68	J,K	18	2.52	12	9.50	250
NL08□T820	82	J,K	18	2.52	10	11.0	200
NL08□T101	100	J,K	12	1	8	11.0	120

1.DC current at which the inductance drops 10%(typ) from its value without current.

2.Operating temperature range -25℃ to 85℃.

3.Tolerance: J = ±5%, K = ±10%

4.Packaging: Clear tape and reel (standard)

5. L , Q : HP4291 for 0.12uH~100uH

6.SRF: HP4291

7.RDC: AX-1152B



Standard Electrical Specifications

■ Wound Chip Inductors (Ferrite) – NL10 Series / Molding (1210)

Part Number	Inductance (μH)	Tolerance (± %)	Q Min.	Test Frequency (MHz)	Self Resonant Frequency (MHz)min.	DC Resistance (Ω)max.	Rated current (mA)
NL10□T10N	0.010	K,M	15	100	2500	0.13	450
NL10□T12N	0.012	K,M	17	100	2300	0.14	450
NL10□T15N	0.015	K,M	19	100	2100	0.16	450
NL10□T18N	0.018	K,M	21	100	1900	0.18	450
NL10□T22N	0.022	K,M	23	100	1700	0.20	450
NL10□T27N	0.027	K,M	23	100	1500	0.22	450
NL10□T33N	0.033	K,M	25	100	1400	0.24	450
NL10□T39N	0.039	K,M	25	100	1300	0.27	450
NL10□T47N	0.047	K,M	26	100	1200	0.30	450
NL10□T56N	0.056	K,M	26	100	1100	0.33	450
NL10□T68N	0.068	K,M	27	100	1000	0.36	450
NL10□T82N	0.082	K,M	27	100	900	0.40	450

Part Number	Inductance (μH)	Tolerance (± %)	Q Min.	Test Frequency (MHz)	Self Resonant Frequency (MHz)min.	DC Resistance (Ω)max.	Rated current (mA)
NL10□TR10	0.10	K	30	25.2	700	0.44	450
NL10□TR12	0.12	K	30	25.2	500	0.22	450
NL10□TR15	0.15	K	30	25.2	450	0.25	450
NL10□TR18	0.18	K	30	25.2	400	0.28	450
NL10□TR22	0.22	K	30	25.2	350	0.32	450
NL10□TR27	0.27	K	30	25.2	320	0.36	450
NL10□TR33	0.33	K	30	25.2	300	0.40	450
NL10□TR39	0.39	K	30	25.2	250	0.45	450
NL10□TR47	0.47	K	30	25.2	220	0.50	450
NL10□TR56	0.56	K	30	25.2	180	0.55	450
NL10□TR68	0.68	K	30	25.2	160	0.60	450
NL10□TR82	0.82	K	30	25.2	140	0.65	450
NL10□T1R0	1.0	K	30	7.96	95	0.70	400
NL10□T1R2	1.2	K	30	7.96	80	0.75	390
NL10□T1R5	1.5	K	30	7.96	70	0.85	370
NL10□T1R8	1.8	K	30	7.96	60	0.90	350
NL10□T2R2	2.2	K	30	7.96	50	1.00	320
NL10□T2R7	2.7	K	30	7.96	45	1.10	290
NL10□T3R3	3.3	K	30	7.96	40	1.20	260
NL10□T3R9	3.9	K	30	7.96	37	1.30	250
NL10□T4R7	4.7	K	30	7.96	32	1.50	220
NL10□T5R6	5.6	K	30	7.96	30	1.60	200
NL10□T6R8	6.8	K	30	7.96	27	1.80	180
NL10□T8R2	8.2	K	30	7.96	25	2.00	170
NL10□T100	10	K	30	2.52	20	2.10	150
NL10□T120	12	K	30	2.52	18	2.50	140
NL10□T150	15	K	30	2.52	17	2.80	130
NL10□T180	18	K	30	2.52	15	3.30	120
NL10□T220	22	K	30	2.52	14	3.70	110
NL10□T270	27	K	30	2.52	13	5.00	80
NL10□T330	33	K	30	2.52	12	5.60	70
NL10□T390	39	K	30	2.52	12	6.40	65
NL10□T470	47	K	30	2.52	10	7.00	60
NL10□T560	56	K	30	2.52	9	8.00	55
NL10□T680	68	K	30	2.52	9	9.00	50
NL10□T820	82	K	30	2.52	8	10.00	45
NL10□T101	100	K	20	0.796	7	11.00	40
NL10□T121	120	K	20	0.796	7	12.00	70
NL10□T151	150	K	20	0.796	6	15.00	65
NL10□T181	180	K	20	0.796	6	17.00	60
NL10□T221	220	K	20	0.796	5	21.00	50

1.DC current at which the inductance drops 10%(typ) from its value without current.

2.Operating temperature range -25℃ to 85℃.

3.Tolerance: K = ±10%, M = ±20%

4.Packaging: Clear tape and reel (standard)

5. L , Q : HP4291 for 0.010uH~82uH ; HP4284 for 100uH~220uH

6.SRF: HP4291

7.RDC: AX-1152B



Standard Electrical Specifications

■ Wound Chip Inductors (Ferrite) – NL12 Series / Molding (1812)

Part Number	Inductance (μH)	Tolerance (± %)	Q Min.	Test Frequency (MHz)	Self Resonant Frequency (MHz)min.	DC Resistance (Ω)max.	Rated current (mA)
NL12□TR10	0.10	K	28	25.2	700	0.44	450
NL12□TR12	0.12	K	30	25.2	500	0.22	450
NL12□TR15	0.15	K	30	25.2	450	0.25	450
NL12□TR18	0.18	K	30	25.2	400	0.28	450
NL12□TR22	0.22	K	30	25.2	350	0.32	450
NL12□TR27	0.27	K	30	25.2	320	0.36	450
NL12□TR33	0.33	K	30	25.2	300	0.40	450
NL12□TR39	0.39	K	30	25.2	350	0.45	450
NL12□TR47	0.47	K	30	25.2	220	0.50	450
NL12□TR56	0.56	K	30	25.2	180	0.55	450
NL12□TR68	0.68	K	30	25.2	160	0.60	450
NL12□TR82	0.82	K	30	25.2	140	0.67	450
NL12□T1R0	1.0	K	50	7.96	100	0.50	450
NL12□T1R2	1.2	K	50	7.96	80	0.55	430
NL12□T1R5	1.5	K	50	7.96	70	0.60	410
NL12□T1R8	1.8	K	50	7.96	60	0.65	390
NL12□T2R2	2.2	K	50	7.96	55	0.70	380
NL12□T2R7	2.7	K	50	7.96	50	0.75	370
NL12□T3R3	3.3	K	50	7.96	45	0.80	355
NL12□T3R9	3.9	K	50	7.96	40	0.90	330
NL12□T4R7	4.7	K	50	7.96	35	1.00	315
NL12□T5R6	5.6	K	50	7.96	33	1.10	300
NL12□T6R8	6.8	K	50	7.96	27	1.20	285
NL12□T8R2	8.2	K	50	7.96	25	1.40	270
NL12□T100	10	K	50	2.52	20	1.60	250
NL12□T120	12	K	50	2.52	18	2.00	225
NL12□T150	15	K	50	2.52	17	2.50	200
NL12□T180	18	K	50	2.52	15	2.80	190
NL12□T220	22	K	50	2.52	13	3.20	180
NL12□T270	27	K	50	2.52	12	3.60	170
NL12□T330	33	K	50	2.52	11	4.00	160
NL12□T390	39	K	50	2.52	10	4.50	150
NL12□T470	47	K	50	2.52	10	5.00	140
NL12□T560	56	K	50	2.52	9	5.50	135
NL12□T680	68	K	50	2.52	9	6.00	130
NL12□T820	82	K	50	2.52	8	7.00	120
NL12□T101	100	K	40	0.796	7	8.00	110
NL12□T121	120	K	40	0.796	6	8.00	110
NL12□T151	150	K	40	0.796	5	9.00	105
NL12□T181	180	K	40	0.796	5	9.50	102
NL12□T221	220	K	40	0.796	4	12.0	100
NL12□T271	270	K	40	0.796	3	12.0	92
NL12□T331	330	K	40	0.796	3	14.0	85
NL12□T391	390	K	40	0.796	3	16.0	80
NL12□T471	470	K	40	0.796	3	26.0	62
NL12□T561	560	K	30	0.796	2	30.0	50
NL12□T681	680	K	30	0.796	2	40.0	50
NL12□T821	820	K	30	0.796	2	35.0	30
NL12□T102	1000	K	30	0.252	2	46.0	30

1.DC current at which the inductance drops 10%(typ) from its value without current.

2.Operating temperature range -25℃ to 85℃.

3.Tolerance: K = ±10%

4.Packaging: Clear tape and reel (standard)

5. L , Q : HP4291 for 0.10uH~82uH ; HP4284 for 100uH~1000uH

6.SRF: HP4291

7.RDC: AX-1152B

Standard Electrical Specifications

■ Wound Chip Inductors (Ferrite) – NL20 Series (2220)



Part Number	Inductance (mH)	Tolerance (± %)	Q Min.	Test Frequency (MHz)	Self Resonant Frequency (MHz)min.	DC Resistance (Ω)max.	Rated current (mA)
NL20□T-122	1.2	J,K	30	0.252	1.5	17	75
NL20□T-152	1.5	J,K	30	0.252	1.4	20	70
NL20□T-182	1.8	J,K	30	0.252	1.3	30	60
NL20□T-222	2.2	J,K	30	0.252	1.2	35	55
NL20□T-272	2.7	J,K	30	0.252	1.1	55	45
NL20□T-332	3.3	J,K	30	0.252	1	60	40
NL20□T-392	3.9	J,K	30	0.252	1	70	38
NL20□T-472	4.7	J,K	30	0.252	0.9	78	36
NL20□T-562	5.6	J,K	30	0.252	0.8	85	33
NL20□T-682	6.8	J,K	30	0.252	0.7	110	30
NL20□T-822	8.2	J,K	30	0.252	0.6	125	28
NL20□T-103	10	J,K	20	0.0796	0.5	150	25

1.DC current at which the inductance drops 10%(typ) from its value without current.

2.Operating temperature range -25℃ to 85℃.

3.Tolerance: J = ±5% , K = ±10%

4.Packaging: Clear tape and reel (standard)

5. L , Q : HP4284

6.SRF: HP4291

7.RDC: AX-1152B

Standard Electrical Specifications

■ Wound Chip Inductors (Ferrite) Large Current – NL08 Series (1008)



Part Number	Inductance (μH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	Self Resonant Frequency (MHz)min	DC Resistance (Ω)max	Rated current (mA)
NL08□TC1R0	1.0	J,K	22	7.96	350	0.35	1500
NL08□TC1R2	1.2	J,K	25	7.96	300	0.40	1200
NL08□TC1R5	1.5	J,K	25	7.96	300	0.45	1200
NL08□TC1R8	1.8	J,K	25	7.96	300	0.55	1100
NL08□TC2R2	2.2	J,K	22	7.96	250	0.60	1050
NL08□TC2R7	2.7	J,K	25	7.96	70	0.70	1000
NL08□TC3R3	3.3	J,K	22	7.96	55	0.75	900
NL08□TC3R9	3.9	J,K	25	7.96	50	0.80	900
NL08□TC4R7	4.7	J,K	22	7.96	45	0.90	800
NL08□TC5R6	5.6	J,K	22	7.96	42	1.05	750
NL08□TC6R8	6.8	J,K	22	7.96	40	1.00	750
NL08□TC8R2	8.2	J,K	22	7.96	36	1.30	700
NL08□TC100	10	J,K	20	2.52	35	1.50	700
NL08□TC100	12	J,K	20	2.52	30	1.70	550
NL08□TC150	15	J,K	20	2.52	24	1.90	500
NL08□TC180	18	J,K	20	2.52	20	2.60	470
NL08□TC220	22	J,K	20	2.52	18	2.80	470
NL08□TC220	27	J,K	20	2.52	17	3.40	400
NL08□TC330	33	J,K	20	2.52	16	3.50	400

- 1.DC current at which the inductance drops 10%(typ) from its value without current.
- 2.Operating temperature range -25℃ to 85℃.
- 3.Tolerance: J = ±5% , K = ±10%
- 4.Packaging: Clear tape and reel (standard)
5. L , Q : HP4291
- 6.SRF: HP4291
- 7.RDC: AX-1152B

Standard Electrical Specifications

■ Wound Chip Inductors (Ferrite) Large Current – NL12 Series (1812)



Part Number	Inductance (μH)	Tolerance (± %)	Q Min.	Test Frequency (MHz)	Self Resonant Frequency (MHz)min.	DC Resistance (Ω)max.	Rated current (mA)
NL12□TC1R0	1.0	K	10	7.96	200	0.11	1050
NL12□TC1R2	1.2	K	10	7.96	160	0.12	1000
NL12□TC1R5	1.5	K	10	7.96	130	0.15	950
NL12□TC1R8	1.8	K	10	7.96	100	0.16	900
NL12□TC2R2	2.2	K	10	7.96	80	0.18	850
NL12□TC2R7	2.7	K	10	7.96	60	0.20	800
NL12□TC3R3	3.3	K	10	7.96	45	0.22	750
NL12□TC3R9	3.9	K	10	7.96	40	0.24	700
NL12□TC4R7	4.7	K	10	7.96	35	0.27	650
NL12□TC5R6	5.6	K	10	7.96	30	0.30	650
NL12□TC6R8	6.8	K	10	7.96	28	0.35	600
NL12□TC8R2	8.2	K	10	7.96	25	0.40	600
NL12□TC100	10	K	10	2.52	22	0.50	550
NL12□TC120	12	K	10	2.52	21	0.60	500
NL12□TC150	15	K	10	2.52	20	0.70	450
NL12□TC180	18	K	10	2.52	19	0.80	400
NL12□TC220	22	K	10	2.52	18	0.90	370
NL12□TC270	27	K	10	2.52	16	1.20	330
NL12□TC330	33	K	10	2.52	14	1.40	300
NL12□TC390	39	K	10	2.52	12	1.60	280
NL12□TC470	47	K	10	2.52	11.5	1.90	260
NL12□TC560	56	K	10	2.52	11	2.20	240
NL12□TC680	68	K	10	2.52	10	2.60	220
NL12□TC820	82	K	10	2.52	9	3.50	200
NL12□TC101	100	K	20	0.796	8	4.00	180
NL12□TC121	120	K	20	0.796	7.5	4.50	160
NL12□TC151	150	K	20	0.796	7	6.50	140
NL12□TC181	180	K	20	0.796	6.5	7.50	120
NL12□TC221	220	K	20	0.796	5.5	9.00	120
NL12□TC271	270	K	20	0.796	5	11.0	100
NL12□TC331	330	K	20	0.796	4	13.0	90
NL12□TC391	390	K	20	0.796	3.8	23.0	80
NL12□TC471	470	K	20	0.796	3.5	26	75
NL12□TC561	560	K	20	0.796	2.8	30	70
NL12□TC681	680	K	20	0.796	2.6	40	65
NL12□TC821	820	K	20	0.796	2.5	45	60
NL12□TC102	1000	K	20	0.796	2.3	50	55

1.DC current at which the inductance drops 10%(typ) from its value without current.

2.Operating temperature range -25℃ to 85℃.

3.Tolerance: K = ±10%

4.Packaging: Clear tape and reel (standard)

5. L , Q : HP4291 for 0.10uH~82uH ; HP4284 for 100uH~1000uH

6.SRF: HP4291

7.RDC: AX-1152B



Standard Electrical Specifications

■ Wound Chip Inductors (Ferrite) Large Current – NL20 Series (2220)

Part Number	Inductance (μH)	Tolerance (± %)	Q Min.	Test Frequency (MHz)	Self Resonant Frequency (MHz)min.	DC Resistance (Ω)max.	Rated current (mA)
NL20□TC1R0	1.0	J,K	10	7.96	95	0.03	1800
NL20□TC1R2	1.2	J,K	10	7.96	70	0.035	1700
NL20□TC1R5	1.5	J,K	10	7.96	55	0.04	1600
NL20□TC1R8	1.8	J,K	10	7.96	47	0.05	1400
NL20□TC2R2	2.2	J,K	10	7.96	42	0.06	1300
NL20□TC2R7	2.7	J,K	10	7.96	37	0.07	1200
NL20□TC3R3	3.3	J,K	10	7.96	34	0.08	1120
NL20□TC3R9	3.9	J,K	10	7.96	32	0.09	1050
NL20□TC4R7	4.7	J,K	10	7.96	29	0.11	950
NL20□TC5R6	5.6	J,K	10	7.96	26	0.13	880
NL20□TC6R8	6.8	J,K	10	7.96	24	0.15	810
NL20□TC8R2	8.2	J,K	10	7.96	22	0.18	750
NL20□TC100	10	J,K	10	2.52	19	0.21	690
NL20□TC120	12	J,K	10	2.52	17	0.25	630
NL20□TC150	15	J,K	10	2.52	16	0.30	580
NL20□TC180	18	J,K	10	2.52	14	0.36	530
NL20□TC220	22	J,K	10	2.52	13	0.43	480
NL20□TC270	27	J,K	10	2.52	11.5	0.52	440
NL20□TC330	33	J,K	10	2.52	10.5	0.62	400
NL20□TC390	39	J,K	10	2.52	9.5	0.72	370
NL20□TC470	47	J,K	10	2.52	8.5	0.85	340
NL20□TC560	56	J,K	10	2.52	7.8	1.00	310
NL20□TC680	68	J,K	10	2.52	7	1.2	290
NL20□TC820	82	J,K	10	2.52	6.4	1.4	270
NL20□TC101	100	J,K	20	0.796	6	1.6	250
NL20□TC121	120	J,K	20	0.796	5.4	1.9	230
NL20□TC151	150	J,K	20	0.796	4.8	2.2	210
NL20□TC181	180	J,K	20	0.796	4.4	2.8	190
NL20□TC221	220	J,K	20	0.796	3.9	3.4	170
NL20□TC271	270	J,K	20	0.796	3.6	4.2	155
NL20□TC331	330	J,K	20	0.796	3.2	4.9	140
NL20□TC391	390	J,K	20	0.796	2.9	5.8	130
NL20□TC471	470	J,K	20	0.796	2.6	7	120
NL20□TC561	560	J,K	20	0.796	2.4	8.5	110
NL20□TC681	680	J,K	20	0.796	2.2	10	100
NL20□TC821	820	J,K	20	0.796	2	13	90
NL20□TC102	1000	J,K	20	0.252	1.8	15	85

1.DC current at which the inductance drops 10%(typ) from its value without current.

2.Operating temperature range -25℃ to 85℃.

3.Tolerance: J = ±10% , K = ±10%

4.Packaging: Clear tape and reel (standard)

5. L , Q : HP4291 for 1.0uH~82uH ; HP4284 for 100uH~1000uH

6.SRF: HP4291

7.RDC: AX-1152B