SMD Wire Wound
Chip Inductors

NL Series

PRODUCT IDENTIFICATION

NL □□□□□□□-□□□□-□

- Internal No.
- Tolerance
- Inductance
- Packaging Style
- Dimensions (A, B, C)
- Product Symbol

■ Packaging: T = Tape and Reel, B = Bulk
■ Internal No.: N = Lead-Free

APPLICATIONS

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

OUTLINE

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

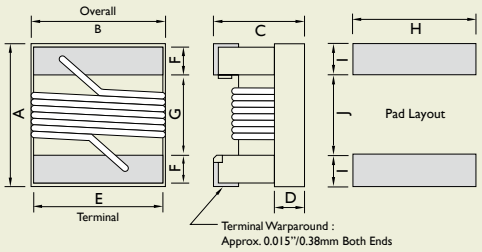
FEATURES

- Very strong solderability by reflow soldering and 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.
- Superior Q characteristics and the broadest L selections among peers.

SHAPES AND DIMENSIONS

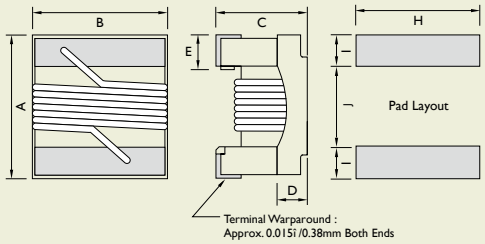
Unit: mm

NL201614



TYPE	A	B	C	D	E	F	G	H	I	J
	Max.	Max.	Max.	Ref.						
NL201614	2.4	1.72	1.52	0.7	1.27	0.5	1.02	1.78	1.02	0.76

NL252018



TYPE	A	B	C	D	E	F	G	H	I	J
	Max.	Max.	Max.	Ref.						
NL252018	2.92	2.5 / 2.79	2.2	0.51	0.51	-	-	2.54	1.02	1.27

NL252018 B Max: at 5N0~R10 = 2.79 mm, at R12~101 = 2.50 mm

ELECTRICAL CHARACTERISTICS NL201614

PART NO.	INDUCTANCE (µH)	TOLERANCE (±%)	Q Min.	TEST FREQUENCY (MHz)	SRF (MHz) Min.	DC RESISTANCE (Ω) Max.	RATED CURRENT (mA) Max.	COLOR CODING
NL201614T-R12☐-N	0.12	5 / 10	25	25.20	500	0.20	600	White
NL201614T-R15☐-N	0.15	5 / 10	25	25.20	450	0.25	600	Black
NL201614T-R18☐-N	0.18	5 / 10	25	25.20	410	0.30	570	Brown
NL201614T-R22☐-N	0.22	5 / 10	25	25.20	350	0.35	550	Red
NL201614T-R27☐-N	0.27	5 / 10	25	25.20	280	0.40	530	Orange
NL201614T-R33☐-N	0.33	5 / 10	25	25.20	235	0.45	510	Yellow
NL201614T-R39☐-N	0.39	5 / 10	25	25.20	210	0.50	490	Green
NL201614T-R47☐-N	0.47	5 / 10	25	25.20	170	0.55	470	Blue
NL201614T-R56☐-N	0.56	5 / 10	25	25.20	150	0.60	450	Violet
NL201614T-R68☐-N	0.68	5 / 10	25	25.20	140	0.70	420	Gray
NL201614T-R82☐-N	0.82	5 / 10	25	25.20	130	0.75	400	White
NL201614T-1R0☐-N	1.00	5 / 10	15	7.96	115	0.80	350	Black
NL201614T-1R2☐-N	1.20	5 / 10	15	7.96	95	0.90	325	Brown
NL201614T-1R5☐-N	1.50	5 / 10	15	7.96	85	1.05	300	Red
NL201614T-1R8☐-N	1.80	5 / 10	15	7.96	80	1.20	270	Orange
NL201614T-2R2☐-N	2.20	5 / 10	15	7.96	75	1.40	250	Yellow
NL201614T-2R7☐-N	2.70	5 / 10	15	7.96	70	1.60	230	Green
NL201614T-3R3☐-N	3.30	5 / 10	15	7.96	60	1.80	210	Blue
NL201614T-3R9☐-N	3.90	5 / 10	15	7.96	55	2.00	190	Violet
NL201614T-4R7☐-N	4.70	5 / 10	15	7.96	45	2.40	170	Gray
NL201614T-5R6☐-N	5.60	5 / 10	15	7.96	40	2.70	150	White
NL201614T-6R8☐-N	6.80	5 / 10	15	7.96	36	3.20	140	Black
NL201614T-8R2☐-N	8.20	5 / 10	15	7.96	33	3.60	120	Brown
NL201614T-100☐-N	10.0	5 / 10	15	2.52	30	4.50	110	Red
NL201614T-120☐-N	12.0	5 / 10	15	2.52	25	5.70	105	Orange
NL201614T-150☐-N	15.0	5 / 10	15	2.52	23	6.50	90	Yellow
NL201614T-180☐-N	18.0	5 / 10	15	2.52	21	7.00	85	Green
NL201614T-220☐-N	22.0	5 / 10	15	2.52	20	8.00	78	Blue
NL201614T-270☐-N	27.0	5 / 10	15	2.52	18	9.00	75	Violet
NL201614T-330☐-N	33.0	5 / 10	15	2.52	17	10.00	70	Gray

Note:
When ordering, please specify tolerance and packaging codes.
Tolerance: J = ± 5%, K = ± 10%
Packaging: Clear tape and reel (standard)
Test Instruments: L/Q- Agilent/HP4291A+Agilent/HP16197A
SRF- Agilent/HP4291A
RDC- CH502BC/ HP4338B
IDC- For Inductance drop 10% from its value without current
Operating Temperature Range: -25 °C to +85 °C

ELECTRICAL CHARACTERISTICS NL252018

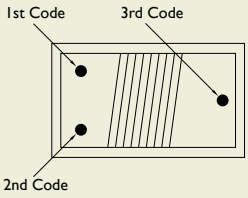
PART NO.	INDUCTANCE (μH)	TOLERANCE (±%)	Q Min.	TEST FREQUENCY (MHz)	SRF (MHz) Min.	DC RESISTANCE (Ω) Max.	RATED CURRENT (mA) Max.	COLOR CODING		
								1st	2nd	3rd
NL252018T-5N0☐-N	0.005	10	10	100	3,000	0.25	2,000	Black	Green	Black
NL252018T-10N☐-N	0.010	10	10	100	2,500	0.25	1,800	Brown	Black	Black
NL252018T-12N☐-N	0.012	10	15	100	2,400	0.26	1,700	Brown	Red	Black
NL252018T-15N☐-N	0.015	10	15	100	2,300	0.28	1,600	Brown	Green	Black
NL252018T-18N☐-N	0.018	10	15	100	2,200	0.30	1,550	Brown	Gray	Black
NL252018T-22N☐-N	0.022	5 / 10	20	100	2,100	0.35	1,500	Red	Red	Black
NL252018T-27N☐-N	0.027	5 / 10	20	100	2,000	0.40	1,450	Red	Violet	Black
NL252018T-33N☐-N	0.033	5 / 10	30	100	1,600	0.42	1,400	Orange	Orange	Black
NL252018T-39N☐-N	0.039	5 / 10	35	100	1,500	0.45	1,350	Orange	White	Black
NL252018T-47N☐-N	0.047	5 / 10	35	100	1,400	0.50	1,300	Yellow	Violet	Black
NL252018T-56N☐-N	0.056	5 / 10	35	100	1,300	0.60	1,250	Green	Blue	Black
NL252018T-68N☐-N	0.068	5 / 10	35	100	1,200	0.65	1,240	Blue	Gray	Black
NL252018T-82N☐-N	0.082	5 / 10	35	100	1,100	0.75	1,230	Gray	Red	Black
NL252018T-R10☐-N	0.10	5 / 10	35	100	800	0.80	1,220	Brown	Black	Brown
NL252018T-R12☐-N	0.12	5 / 10	30	25.20	700	0.30	900	Brown	Red	Brown
NL252018T-R15☐-N	0.15	5 / 10	30	25.20	550	0.35	900	Brown	Green	Brown
NL252018T-R18☐-N	0.18	5 / 10	30	25.20	500	0.40	850	Brown	Gray	Brown
NL252018T-R22☐-N	0.22	5 / 10	30	25.20	450	0.50	840	Red	Red	Brown
NL252018T-R27☐-N	0.27	5 / 10	30	25.20	425	0.55	830	Red	Violet	Brown
NL252018T-R33☐-N	0.33	5 / 10	30	25.20	400	0.60	820	Orange	Orange	Brown
NL252018T-R39☐-N	0.39	5 / 10	30	25.20	375	0.65	810	Orange	White	Brown
NL252018T-R47☐-N	0.47	5 / 10	30	25.20	350	0.68	800	Yellow	Violet	Brown
NL252018T-R56☐-N	0.56	5 / 10	30	25.20	325	0.75	800	Green	Blue	Brown
NL252018T-R68☐-N	0.68	5 / 10	30	25.20	300	0.85	800	Blue	Gray	Brown
NL252018T-R82☐-N	0.82	5 / 10	30	25.20	260	1.00	800	Gray	Red	Brown
NL252018T-1R0☐-N	1.00	5 / 10	25	7.96	245	1.10	800	Brown	Black	Red
NL252018T-1R2☐-N	1.20	5 / 10	25	7.96	230	1.20	790	Brown	Red	Red
NL252018T-1R5☐-N	1.50	5 / 10	25	7.96	182	1.30	750	Brown	Green	Red
NL252018T-1R8☐-N	1.80	5 / 10	25	7.96	135	1.45	750	Brown	Gray	Red
NL252018T-2R2☐-N	2.20	5 / 10	25	7.96	105	1.55	750	Red	Red	Red
NL252018T-2R7☐-N	2.70	5 / 10	25	7.96	70	1.70	740	Red	Violet	Red
NL252018T-3R3☐-N	3.30	5 / 10	25	7.96	55	1.90	730	Orange	Orange	Red
NL252018T-3R9☐-N	3.90	5 / 10	25	7.96	48	2.10	700	Orange	White	Red

ELECTRICAL CHARACTERISTICS NL252018

PART NO.	INDUCTANCE (µH)	TOLERANCE (±%)	Q Min.	TEST FREQUENCY (MHz)	SRF (MHz) Min.	DC RESISTANCE (Ω) Max.	RATED CURRENT (mA) Max.	COLOR CODING		
								1st	2nd	3rd
NL252018T-4R7☐-N	4.70	5 / 10	25	7.96	43	2.30	650	Yellow	Violet	Red
NL252018T-5R6☐-N	5.60	5 / 10	20	7.96	42	2.50	640	Green	Blue	Red
NL252018T-6R8☐-N	6.80	5 / 10	20	7.96	39	2.70	630	Blue	Gray	Red
NL252018T-8R2☐-N	8.20	5 / 10	20	7.96	36	3.05	600	Gray	Red	Red
NL252018T-100☐-N	10.0	5 / 10	15	2.52	33	3.50	600	Brown	Black	Orange
NL252018T-120☐-N	12.0	5 / 10	15	2.52	30	3.80	550	Brown	Red	Orange
NL252018T-150☐-N	15.0	5 / 10	15	2.52	26	4.40	430	Brown	Green	Orange
NL252018T-180☐-N	18.0	5 / 10	15	2.52	24	4.80	400	Brown	Gray	Orange
NL252018T-220☐-N	22.0	5 / 10	15	2.52	22	5.50	400	Red	Red	Orange
NL252018T-270☐-N	27.0	5 / 10	15	2.52	21	6.30	360	Red	Violet	Orange
NL252018T-330☐-N	33.0	5 / 10	15	2.52	20	7.10	350	Orange	Orange	Orange
NL252018T-390☐-N	39.0	5 / 10	10	2.52	18	9.50	330	Orange	White	Orange
NL252018T-470☐-N	47.0	5 / 10	10	2.52	17	11.10	300	Yellow	Violet	Orange
NL252018T-560☐-N	56.0	5 / 10	10	2.52	16	12.10	270	Green	Blue	Orange
NL252018T-680☐-N	68.0	5 / 10	10	2.52	15	16.60	250	Blue	Gray	Orange
NL252018T-820☐-N	82.0	5 / 10	10	2.52	13	19.00	200	Gray	Red	Orange
NL252018T-101☐-N	100	5 / 10	8	0.796	12	21.00	120	Brown	Black	Yellow

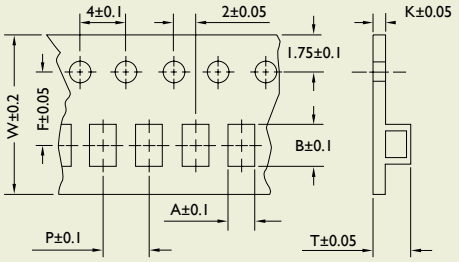
Note:
When ordering, please specify tolerance and packaging codes.
Tolerance: J = ± 5%, K = ± 10%
Packaging: Clear tape and reel (standard)
Test Instruments: L/Q- Agilent/HP4291A+Agilent/HP16197A (over 1MHz) or Agilent/HP4285A+ Agilent/HP16197A (under 1MHz)
SRF- Agilent/HP8753D+Agilent/HP4291A
RDC- Digital Multimeter CH502BC/HP4338B
IDC- For Inductance drop 10% from its value without current
Operating Temperature Range: -25 °C to +85 °C

Color Coding



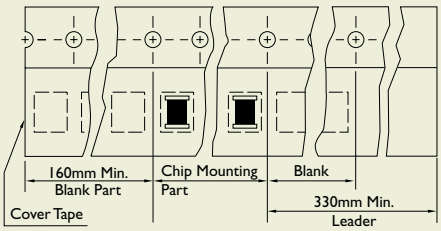
TAPE DIMENSIONS

Unit: mm



TYPE	A	B	K	W	P	F	T
NL201614	1.85	2.45	0.23	8	4	3.5	1.45
NL252018 (5N0~R10)	2.80	2.95	0.23	8	4	3.5	2.20
NL252018 (R12~101)	2.61	2.93	0.26	8	4	3.5	2.25

TAPE MATERIAL

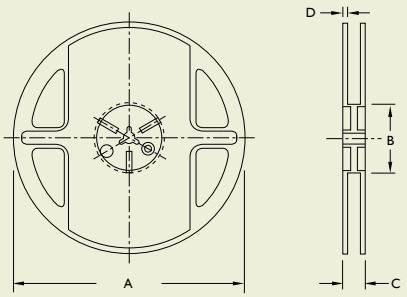


PACKAGING QUANTITY

TYPE	QUANTITY/REEL
NL201614	2,000
NL252018 (5N0~R10)	2,000
NL252018 (R12~101)	2,000

REEL DIMENSIONS

Unit: mm



TYPE	A	B	C	D
NL201614	178	60	12	1.5
NL252018 (5N0~R10)	178	60	12	1.5
NL252018 (R12~101)	178	60	12	1.5