

SUNLEI TECHNOLOGY CORP.

Wire Wound Ferrite Chip Inductors- NL Series

NL series Wire Wound Chip inductors



Features

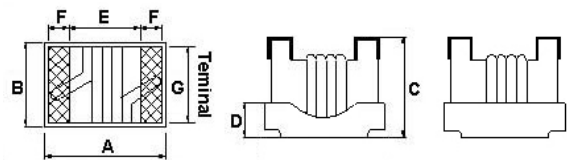
- 1.Highly accurate dimensions can be mounted automatically.
- 2.Terminals are highly resistant to pull forces.
- 3.High reliable in environments of sudden temperature change and humidity.
- 4 .Highly resistant to mechanical shocks and presure.
- 5.Superior Q characteristics and broadest selections amount peers.

Applications

Micro TVs, liquid crystal TVs, video cameras, protable VCRs, car radios,car stereos, thin radios, television tuners, mobile phones, radio and other electronic devices.

Dimensions (mm)

Open Type:



Product Identification

NL 453232 – 100 K -PF

NL: SERIES NAME

453232:Dimensions CODE

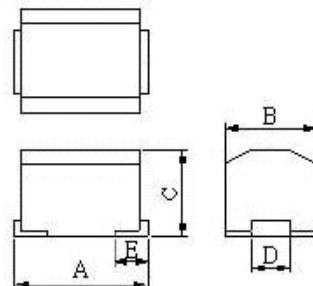
100: INDUCTANCE CODE.

k: TOLERANCE, G=2% J=5%

K=10% M=20%.

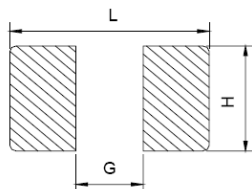
PF:Pb-Free

Molded Type:



PART NO.	A	B	C	D	E	F	G
NL201614	2.29max	1.73max	1.52max	0.50ref	1.02ref	0.50ref	1.27ref
NL252018	2.92max	2.79max	2.20max	0.50ref	1.52ref	0.51ref	2.03ref
NL322522	3.2 ± 0.2	2.5 ± 0.2	2.2 ± 0.2	1.2± 0.4	0.6 ± 0.1		
NL453232	4.5 ± 0.3	3.2± 0.3	3.2± 0.3	1.4± 0.4	1.0 ± 0.2		
NL565050	5.6 ± 0.3	5.0 ± 0.3	5.0 ± 0.3	1.8 ± 0.3	1.3 ± 0.2		

Recommended Pattern(mm)



PART NO.	L	G	H
NL201614	2.80	0.76	1.78
NL252018	3.30	1.30	2.54
NL322522	4.00	1.60	2.00
NL453232	6.00	3.00	2.80
NL565050	8.00	4.00	4.50

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Electrical Characteristics

Part Number	Inductance (nH)	Test Frequency (MHz)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF Min (MHz)	Rdc Max (Ω)	Idc Max (mA)	Color
NL201614-R12□-PF	0.12	25.2	10/5	25	25.2	500	0.20	600	White
NL201614-R15□-PF	0.15	25.2	10/5	25	25.2	450	0.25	600	Black
NL201614-R18□-PF	0.18	25.2	10/5	25	25.2	410	0.30	570	Brown
NL201614-R22□-PF	0.22	25.2	10/5	25	25.2	350	0.35	550	Red
NL201614-R27□-PF	0.27	25.2	10/5	25	25.2	280	0.40	530	Orange
NL201614-R33□-PF	0.33	25.2	10/5	25	25.2	235	0.45	510	Yellow
NL201614-R39□-PF	0.39	25.2	10/5	25	25.2	210	0.5	490	Green
NL201614-R47□-PF	0.47	25.2	10/5	25	25.2	170	0.55	470	Blue
NL201614-R56□-PF	0.56	25.2	10/5	25	25.2	150	0.60	450	Violet
NL201614-R68□-PF	0.68	25.2	10/5	25	25.2	140	0.70	420	Gray
NL201614-R82□-PF	0.82	25.2	10/5	25	25.2	130	0.75	400	White
NL201614-1R0□-PF	1.00	7.96	10/5	15	7.96	115	0.80	350	Black
NL201614-1R2□-PF	1.20	7.96	10/5	15	7.96	95	0.90	325	Brown
NL201614-1R5□-PF	1.50	7.96	10/5	15	7.96	85	1.05	300	Red
NL201614-1R8□-PF	1.80	7.96	10/5	15	7.96	80	1.20	270	Orange
NL201614-2R2□-PF	2.20	7.96	10/5	15	7.96	75	1.40	250	Yellow
NL201614-2R7□-PF	2.70	7.96	10/5	15	7.96	70	1.60	230	Green
NL201614-3R3□-PF	3.30	7.96	10/5	15	7.96	60	1.80	210	Blue
NL201614-3R9□-PF	3.90	7.96	10/5	15	7.96	55	2.00	190	Violet
NL201614-4R7□-PF	4.70	7.96	10/5	15	7.96	45	2.40	170	Gray
NL201614-5R6□-PF	5.60	7.96	10/5	15	7.96	40	2.70	150	White
NL201614-6R8□-PF	6.80	7.96	10/5	15	7.96	36	3.20	140	Black
NL201614-8R2□-PF	8.20	7.96	10/5	15	7.96	33	3.60	120	Brown
NL201614-100□-PF	10.0	2.52	10/5	15	2.52	30	4.50	110	Red
NL201614-120□-PF	12.0	2.52	10/5	15	2.52	25	5.70	105	Orange
NL201614-150□-PF	15.0	2.52	10/5	15	2.52	23	6.50	90	Yellow
NL201614-180□-PF	18.0	2.52	10/5	15	2.52	21	7.00	85	Green
NL201614-220□-PF	22.0	2.52	10/5	15	2.52	20	8.00	78	Blue
NL201614-270□-PF	27.0	2.52	10/5	15	2.52	18	9.00	75	Violet
NL201614-330□-PF	33.0	2.52	10/5	15	2.52	17	10.0	70	Gray

NOTE:

□-tolerance J=±5% / K=±10% / M=±20%

1.Operating temperature range - 25℃ ~ 85℃

2.IDC:Applied the current to coils, the inductance shall be less than 10% initial value.

Wire Wound Ferrite Chip Inductors-NL-Series

NL series Open Type Wire Wound Chip Inductors

Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF Min (MHz)	Rdc Max (Ω)	Idc Max (mA)
NL252018-5N0□-PF	0.005	100	10	10	100	3000	0.25	2000
NL252018-10N□-PF	0.010	100	10	10	100	2500	0.25	1800
NL252018-12N□-PF	0.012	100	10	15	100	2400	0.26	1700
NL252018-15N□-PF	0.015	100	10	15	100	2300	0.28	1600
NL252018-18N□-PF	0.018	100	10	15	100	2200	0.3	1550
NL252018-22N□-PF	0.022	100	10/5	20	100	2100	0.35	1500
NL252018-27N□-PF	0.027	100	10/5	20	100	2000	0.4	1450
NL252018-33N□-PF	0.033	100	10/5	30	100	1600	0.42	1400
NL252018-39N□-PF	0.039	100	10/5	35	100	1500	0.45	1350
NL252018-47N□-PF	0.047	100	10/5	35	100	1400	0.5	1300
NL252018-56N□-PF	0.056	100	10/5	35	100	1300	0.6	1250
NL252018-68N□-PF	0.068	100	10/5	35	100	1200	0.65	1240
NL252018-82N□-PF	0.082	100	10/5	35	100	1100	0.75	1230
NL252018-R10□-PF	0.10	100	10/5	35	100	800	0.80	1220
NL252018-R12□-PF	0.12	25.2	10/5	30	25.2	700	0.30	900
NL252018-R15□-PF	0.15	25.2	10/5	30	25.2	550	0.35	900
NL252018-R18□-PF	0.18	25.2	10/5	30	25.2	500	0.40	850
NL252018-R22□-PF	0.22	25.2	10/5	30	25.2	450	0.50	840
NL252018-R27□-PF	0.27	25.2	10/5	30	25.2	425	0.55	830
NL252018-R33□-PF	0.33	25.2	10/5	30	25.2	400	0.60	820
NL252018-R39□-PF	0.39	25.2	10/5	30	25.2	375	0.65	810
NL252018-R47□-PF	0.47	25.2	10/5	30	25.2	350	0.68	800
NL252018-R56□-PF	0.56	25.2	10/5	30	25.2	325	0.75	800
NL252018-R68□-PF	0.68	25.2	10/5	30	25.2	300	0.85	800
NL252018-R82□-PF	0.82	25.2	10/5	30	25.2	260	1.00	800
NL252018-1R0□-PF	1.0	7.96	10/5	25	7.96	245	1.10	800
NL252018-1R2□-PF	1.2	7.96	10/5	25	7.96	230	1.20	790
NL252018-1R5□-PF	1.5	7.96	10/5	25	7.96	182	1.30	750
NL252018-1R8□-PF	1.8	7.96	10/5	25	7.96	135	1.45	750

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NL252018-2R2□-PF	2.2	7.96	10/5	25	7.96	105	1.55	750
NL252018-2R7□-PF	2.7	7.96	10/5	25	7.96	70	1.70	740
NL252018-3R3□-PF	3.3	7.96	10/5	25	7.96	55	1.90	730
NL252018-3R9□-PF	3.9	7.96	10/5	25	7.96	48	2.10	700
NL252018-4R7□-PF	4.7	7.96	10/5	25	7.96	43	2.30	650
NL252018-5R6□-PF	5.6	7.96	10/5	20	7.96	42	2.50	640
NL252018-6R8□-PF	6.8	7.96	10/5	20	7.96	39	2.70	630
NL252018-8R2□-PF	8.2	7.96	10/5	20	7.96	36	3.05	600
NL252018-100□-PF	10	2.52	10/5	15	2.52	33	3.50	600
NL252018-120□-PF	12	2.52	10/5	15	2.52	30	3.80	550
NL252018-150□-PF	15	2.52	10/5	15	2.52	26	4.40	430
NL252018-180□-PF	18	2.52	10/5	15	2.52	24	4.80	400
NL252018-220□-PF	22	2.52	10/5	15	2.52	22	5.50	400
NL252018-270□-PF	27	2.52	10/5	15	2.52	21	6.30	360
NL252018-330□-PF	33	2.52	10/5	15	2.52	20	7.10	350
NL252018-390□-PF	39	2.52	10/5	10	2.52	18	9.50	330
NL252018-470□-PF	47	2.52	10/5	10	2.52	17	11.1	300
NL252018-560□-PF	56	2.52	10/5	10	2.52	16	12.1	270
NL252018-680□-PF	68	2.52	10/5	10	2.52	15	16.6	250
NL252018-820□-PF	82	2.52	10/5	10	2.52	13	19	200
NL252018-101□-PF	100	0.796	10/5	8	0.80	12	21	120

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NL series Molded Type Wire Wound Chip Inductors

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance ±%	Q Min.	Test Frequency (MHz)	SRF (MHz)min	DC Resistance (Ω) Max	IDC (mA)Max
NL322522-010□-PF	0.010	10	15	100	2500	0.13	450
NL322522-012□-PF	0.012	10	17	100	2300	0.14	450
NL322522-015□-PF	0.015	10	19	100	2100	0.16	450
NL322522-018□-PF	0.018	10	21	100	1900	0.18	450
NL322522-022□-PF	0.022	10	23	100	1700	0.2	450
NL322522-027□-PF	0.027	10	23	100	1500	0.22	450
NL322522-033□-PF	0.033	10	25	100	1400	0.24	450
NL322522-039□-PF	0.039	10	25	100	1300	0.27	450
NL322522-047□-PF	0.047	10	26	100	1200	0.3	450
NL322522-056□-PF	0.056	10	26	100	1100	0.33	450
NL322522-068□-PF	0.068	10	27	100	1000	0.36	450
NL322522-082□-PF	0.082	10	27	100	900	0.4	450
NL322522-R10□-PF	0.10	10	28	100	700	0.44	450
NL322522-R12□-PF	0.12	10	30	25.2	500	0.22	450
NL322522-R15□-PF	0.15	10	30	25.2	450	0.25	450
NL322522-R18□-PF	0.18	10	30	25.2	400	0.28	450
NL322522-R22□-PF	0.22	10	30	25.2	350	0.32	450
NL322522-R27□-PF	0.27	10	30	25.2	320	0.36	450
NL322522-R33□-PF	0.33	10	30	25.2	300	0.40	450
NL322522-R39□-PF	0.39	10	30	25.2	250	0.45	450
NL322522-R47□-PF	0.47	10	30	25.2	220	0.50	450
NL322522-R56□-PF	0.56	10	30	25.2	180	0.55	450
NL322522-R68□-PF	0.68	10	30	25.2	160	0.60	450
NL322522-R82□-PF	0.82	10	30	25.2	140	0.65	450
NL322522-1R0□-PF	1.00	10	30	7.96	90	0.70	400
NL322522-1R2□-PF	1.20	10	30	7.96	85	0.75	390
NL322522-1R5□-PF	1.50	10	30	7.96	70	0.85	370
NL322522-1R8□-PF	1.80	10	30	7.96	60	0.90	350
NL322522-2R2□-PF	2.20	10	30	7.96	50	1.00	320
NL322522-2R7□-PF	2.70	10	30	7.96	45	1.10	290

NOTE:

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Part Number	Inductance (uH)	Tolerance ±%	Q Min.	Test Frequency (MHz)	SRF (MHz)min	DC Resistance (Ω) Max	IDC (mA)Max
NL322522-3R3□-PF	3.30	10	30	7.96	40	1.20	260
NL322522-3R9□-PF	3.90	10	30	7.96	37	1.30	250
NL322522-4R7□-PF	4.70	10	30	7.96	32	1.50	220
NL322522-5R6□-PF	5.60	10	30	7.96	30	1.60	200
NL322522-6R8□-PF	6.80	10	30	7.96	28	1.80	180
NL322522-8R2□-PF	8.20	10	30	7.96	25	2.00	170
NL322522-100□-PF	10	10	30	2.52	23	2.10	150
NL322522-120□-PF	12	10	30	2.52	20	2.50	140
NL322522-150□-PF	15	10	30	2.52	19	2.80	130
NL322522-180□-PF	18	10	30	2.52	17	3.30	120
NL322522-220□-PF	22	10	30	2.52	16	3.70	110
NL322522-270□-PF	27	10	30	2.52	14	5.00	80
NL322522-330□-PF	33	10	30	2.52	13	5.60	70
NL322522-390□-PF	39	10	30	2.52	12	6.40	65
NL322522-470□-PF	47	10	30	2.52	10	7	60
NL322522-560□-PF	56	10	30	2.52	9	8	55
NL322522-680□-PF	68	10	30	2.52	9	9	50
NL322522-820□-PF	82	10	30	2.52	8	10	45
NL322522-101□-PF	100	10	20	0.796	7	10	40
NL322522-121□-PF	120	10	20	0.796	7	11	70
NL322522-151□-PF	150	10	20	0.796	6	15	65
NL322522-181□-PF	180	10	20	0.796	6	17	60
NL322522-221□-PF	220	10	20	0.796	5	21	50
NL322522-271□-PF	270	10	20	0.796	6	22	45
NL322522-331□-PF	330	10	20	0.796	5	34	40

NOTE:

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Part Number	Inductance (uH)	Tolerance ±%	Q Min.	Test Frequency (MHz)	SRF (MHz)min	DC Resistance (Ω) Max	IDC (mA)Max
NL453232-R10□-PF	0.10	20	28	25.2	700	0.44	450
NL453232-R12□-PF	0.12	20	30	25.2	500	0.22	450
NL453232-R15□-PF	0.15	20	30	25.2	450	0.25	450
NL453232-R18□-PF	0.18	20	30	25.2	400	0.28	450
NL453232-R22□-PF	0.22	20	30	25.2	350	0.32	450
NL453232-R27□-PF	0.27	20	30	25.2	320	0.36	450
NL453232-R33□-PF	0.33	20	30	25.2	300	0.4	450
NL453232-R39□-PF	0.39	20	30	25.2	250	0.45	450
NL453232-R47□-PF	0.47	20	30	25.2	220	0.5	450
NL453232-R56□-PF	0.56	20	30	25.2	180	0.55	450
NL453232-R68□-PF	0.68	20	30	25.2	160	0.6	450
NL453232-R82□-PF	0.82	20	30	25.2	140	0.67	450
NL453232-1R0□-PF	1.00	10	50	7.96	100	0.50	450
NL453232-1R2□-PF	1.20	10	50	7.96	80	0.55	430
NL453232-1R5□-PF	1.50	10	50	7.96	70	0.60	410
NL453232-1R8□-PF	1.80	10	50	7.96	60	0.65	390
NL453232-2R2□-PF	2.20	10	50	7.96	55	0.70	380
NL453232-2R7□-PF	2.70	10	50	7.96	50	0.75	370
NL453232-3R3□-PF	3.30	10	50	7.96	45	0.80	355
NL453232-3R4□-PF	3.90	10	50	7.96	40	0.90	330
NL453232-4R7□-PF	4.70	10	50	7.96	35	1.00	315
NL453232-5R6□-PF	5.60	10	50	7.96	33	1.10	300
NL453232-6R8□-PF	6.80	10	50	7.96	27	1.20	285
NL453232-8R2□-PF	8.20	10	50	7.96	25	1.40	270

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Part Number	Inductance (uH)	Tolerance ±%	Q Min.	Test Frequency (MHz)	SRF (MHz)min	DC Resistance (Ω) Max	IDC (mA)Max
NL453232-100□-PF	10	10	50	2.52	20	1.60	250
NL453232-120□-PF	12	10	50	2.52	18	2.00	225
NL453232-150□-PF	15	10	50	2.52	17	2.50	200
NL453232-180□-PF	18	10	50	2.52	15	2.80	190
NL453232-220□-PF	22	10	50	2.52	13	3.20	180
NL453232-270□-PF	27	10	50	2.52	12	3.60	170
NL453232-330□-PF	33	10	50	2.52	11	4.00	160
NL453232-390□-PF	39	10	50	2.52	10	4.50	150
NL453232-470□-PF	47	10	50	2.52	10	5.00	140
NL453232-560□-PF	56	10	50	2.52	9	5.50	135
NL453232-680□-PF	68	10	50	2.52	9	6.00	130
NL453232-820□-PF	82	10	50	2.52	8	7.00	120
NL453232-101□-PF	100	10	40	0.796	8	8.00	110
NL453232-121□-PF	120	10	40	0.796	6	8.00	110
NL453232-151□-PF	150	10	40	0.796	5	9.00	105
NL453232-181□-PF	180	10	40	0.796	5	9.50	102
NL453232-221□-PF	220	10	40	0.796	4	12	100
NL453232-271□-PF	270	10	30	0.796	4	18	92
NL453232-331□-PF	330	10	30	0.796	3.5	20	85
NL453232-391□-PF	390	10	30	0.796	3	23	80
NL453232-471□-PF	470	10	30	0.796	3	26	62
NL453232-561□-PF	560	10	30	0.796	3	30	50
NL453232-681□-PF	680	10	30	0.796	3	40	50
NL453232-821□-PF	820	10	30	0.796	2.5	45	30
NL453232-102□-PF	1000	10	30	0.796	2.5	50	30

NOTE:

□-tolerance J=±5% / K=±10% / M=±20%

1.Operating temperature range — 2 5 °C ~ 8 5 °C

2.IDC:Applied the current to coils, the inductance shall be less than 10% initial value.

Wire Wound Ferrite Chip Inductors-NL-Series

NL series Molded Type Wire Wound Chip Inductors

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance ±%	Q Min.	Test Frequency (MHz)	SRF (MHz)min	DC Resistance (Ω) Max	IDC (mA)Max
NL565050-122□-PF	1.2	0.5	30	0.252	1.5	17	75
NL565050-152□-PF	1.5	0.5	30	0.252	1.4	20	70
NL565050-182□-PF	1.8	0.5	30	0.252	1.3	30	60
NL565050-222□-PF	2.2	0.5	30	0.252	1.2	35	55
NL565050-272□-PF	2.7	0.5	30	0.252	1.1	55	45
NL565050-332□-PF	3.3	0.5	30	0.252	1	60	40
NL565050-392□-PF	3.9	0.5	30	0.252	1	70	38
NL565050-472□-PF	4.7	0.5	30	0.252	0.9	78	36
NL565050-562□-PF	5.6	0.5	30	0.252	0.8	85	33
NL565050-682□-PF	6.8	0.5	30	0.252	0.7	110	30
NL565050-822□-PF	8.2	0.5	30	0.252	0.6	125	28
NL565050-103□-PF	10	0.5	20	0.0796	0.5	150	25

NOTE:

□-tolerance J=±5% / K=±10% / M=±20%

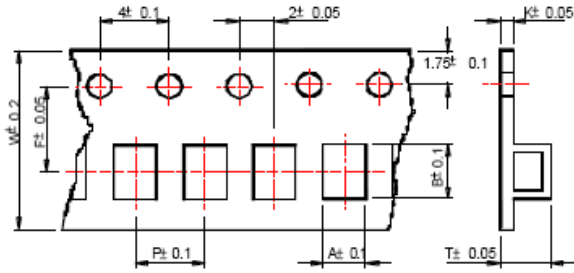
1. Operating temperature range - 25 °C ~ 85 °C

2. IDC: Applied the current to coils, the inductance shall be less than 10% initial value.

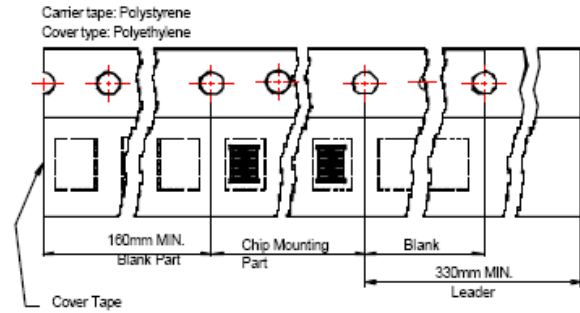
Wire Wound Ferrite Chip Inductors-NL-Series

PACKAGING

Tape Dimensions



Tape Material



Reel Dimensions

Figure 1

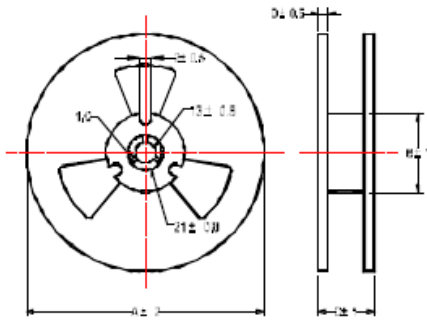
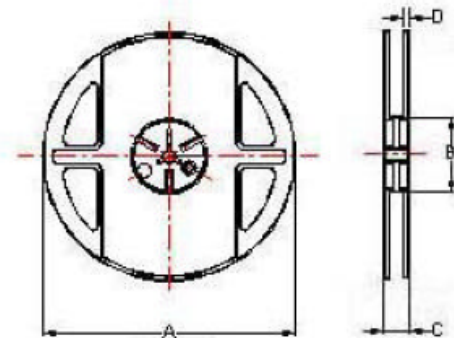


Figure 2



TYPE	Tape Dimensions							Reel Dimensions				Quantity/Reel	
	A	B	T	W	P	F	K	Fig	A	B	C		D
NL201614	1.85	2.45	0.23	8	4	3.5	1.45	2	178	60	12	1.5	2000
NL252018	2.7	2.95	0.23	8	4	3.5	2.25	2	178	60	12	1.5	2000
NL322522	2.96	3.6	2.4	8	4	3.5	0.23	2	178	60	12	1.5	2000
NL453232	3.30	5.0	3.5	12	8	5.5	0.30	2	178	60	16	1.4	500
NL565050	5.35	6.1	5.5	16	12	7.5	0.35	1	330	100	22	2.3	1000