Inductors for Standard Circuits

Wound/STD

NLV/NL series

Type:	**NLV25**	**2520[1008 inch]***
	NLV32	**3225[1210 inch]**
	NL453232	**4532[1812 inch]**
	NL565050	**5650[2220 inch]**

*** Dimensions Code JIS[EIA]**

Issue date: September 2011

- All specifications are subject to change without notice.
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

TDK

Inductors for Standard Circuits
Wound/STD

Conformity to RoHS Directive

NLV Series NLV25

FEATURES

- The product has good heat durability that withstands lead-free compatible reflow soldering conditions.
- Lead-free material is used for the plating on the terminal
- The electrical characteristics, reliability, shape and pad shape are the same as the previous NL series.
- The product uses metal terminals, which realize excellent connection reliability.
- Highly heat resistant thermoplastic resin is used to form the exterior package.
- From 0.01µH to 100µH, all of the products in the E-12 series are J(±5%) tolerance products.
- This product is in compliance with the RoHS Directive. Other products with specifications that do not include exemption regulations are also available.

APPLICATIONS

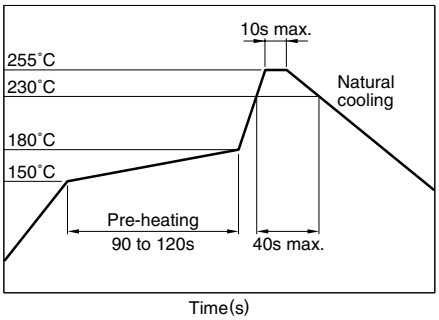
- Audio-visual equipment including TVs, VCRs and digital cameras.
- Electronic equipment used in communication infrastructures including xDSL and mobile base stations.
- Electronic equipment used in onboard automobile equipment including car audio and ECU systems.
- Other electronic equipment including HDDs and ODDs.

SPECIFICATIONS

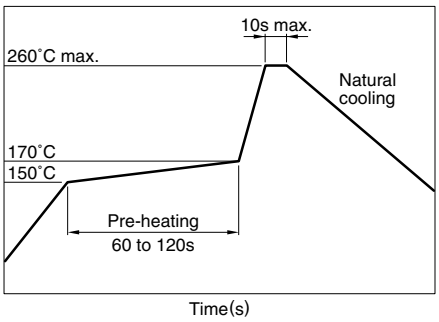
Operating temperature range	–40 to +105°C [Including self-temperature rise]
Storage temperature range	–40 to +105°C

RECOMMENDED SOLDERING CONDITIONS

REFLOW SOLDERING



FLOW SOLDERING



IRON SOLDERING

Tip temperature	300 to 350°C
Heating time	3 secconds/soldering
Soldering rod specifications	Output: 30W Tip diameter: 1mm

- Based on the above conditions, use a maximum product temperature of 260°C and a maximum accumulated heating time of 10 seconds as a guideline.
- Please contact us for details.

PRODUCT IDENTIFICATION

NLV	25	T-	2R2	J	- PF
(1)	(2)	(3)	(4)	(5)	(6)

(1) Series name

(2) Dimensions

25	2.5×2.0×1.8mm (L×W×T)

(3) Packaging style

T	Taping (reel)

(4) Inductance value

010	0.01µH
R10	0.1µH
1R0	1µH
100	10µH
101	100µH

(5) Inductance tolerance

J	±5%

(6) Lead-free compatible product

PF	Conformity to RoHS directive, exemption regulations apply
EF	Conformity to RoHS directive

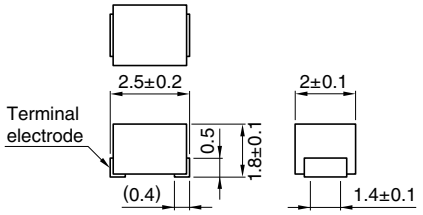
PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	2000 pieces/reel

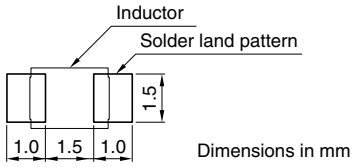
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



Weight:25mg



Dimensions in mm

ELECTRICAL CHARACTERISTICS

Inductance (μH)	Inductance tolerance	Q typ.	Test frequency L,Q (MHz)	Self-resonant frequency (MHz)min.	DC resistance (Ω)max.	Rated current*1 (mA)max.	Part No.
0.01	±5%	15	100	2150	0.26	530	NLV25T-010J-□*2
0.012	±5%	15	100	2050	0.27	500	NLV25T-012J-□
0.015	±5%	15	100	2000	0.29	480	NLV25T-015J-□
0.018	±5%	15	100	1850	0.31	450	NLV25T-018J-□
0.022	±5%	15	100	1650	0.37	420	NLV25T-022J-□
0.027	±5%	15	100	1550	0.4	410	NLV25T-027J-□
0.033	±5%	20	100	1450	0.42	400	NLV25T-033J-□
0.039	±5%	20	100	1350	0.45	380	NLV25T-039J-□
0.047	±5%	20	100	1200	0.5	360	NLV25T-047J-□
0.056	±5%	20	100	1100	0.6	340	NLV25T-056J-□
0.068	±5%	20	100	1050	0.65	320	NLV25T-068J-□
0.082	±5%	20	100	900	0.75	300	NLV25T-082J-□
0.1	±5%	20	100	800	0.8	280	NLV25T-R10J-□
0.12	±5%	30	25.2	700	0.3	550	NLV25T-R12J-□
0.15	±5%	30	25.2	550	0.35	500	NLV25T-R15J-□
0.18	±5%	30	25.2	500	0.4	460	NLV25T-R18J-□
0.22	±5%	30	25.2	450	0.5	430	NLV25T-R22J-□
0.27	±5%	30	25.2	425	0.55	420	NLV25T-R27J-□
0.33	±5%	30	25.2	400	0.6	400	NLV25T-R33J-□
0.39	±5%	30	25.2	375	0.65	375	NLV25T-R39J-□
0.47	±5%	30	25.2	350	0.68	350	NLV25T-R47J-□
0.56	±5%	30	25.2	325	0.75	325	NLV25T-R56J-□
0.68	±5%	30	25.2	300	0.85	300	NLV25T-R68J-□
0.82	±5%	30	25.2	260	1	260	NLV25T-R82J-□
1	±5%	30	7.96	245	1.1	245	NLV25T-1R0J-□
1.2	±5%	30	7.96	230	1.2	230	NLV25T-1R2J-□
1.5	±5%	30	7.96	182	1.3	220	NLV25T-1R5J-□
1.8	±5%	30	7.96	135	1.45	210	NLV25T-1R8J-□
2.2	±5%	30	7.96	105	1.55	200	NLV25T-2R2J-□
2.7	±5%	30	7.96	70	1.7	195	NLV25T-2R7J-□
3.3	±5%	30	7.96	55	1.9	185	NLV25T-3R3J-□
3.9	±5%	30	7.96	48	2.1	180	NLV25T-3R9J-□
4.7	±5%	30	7.96	43	2.3	175	NLV25T-4R7J-□
5.6	±5%	25	7.96	42	2.5	170	NLV25T-5R6J-□
6.8	±5%	25	7.96	39	2.7	165	NLV25T-6R8J-□
8.2	±5%	25	7.96	36	3.05	160	NLV25T-8R2J-□
10	±5%	25	2.52	33	3.5	155	NLV25T-100J-□
12	±5%	25	2.52	30	3.8	150	NLV25T-120J-□
15	±5%	25	2.52	26	4.4	140	NLV25T-150J-□
18	±5%	25	2.52	24	4.8	130	NLV25T-180J-□
22	±5%	25	2.52	22	5.5	125	NLV25T-220J-□
27	±5%	25	2.52	21	6.3	115	NLV25T-270J-□
33	±5%	25	2.52	20	7.1	110	NLV25T-330J-□
39	±5%	20	2.52	18	9.5	90	NLV25T-390J-□

*1 Rated current: Value obtained when current flows and the temperature has risen to 20°C or when DC current flows and the initial value of inductance has fallen by 10%, whichever is smaller.

*2 □: Please specify lead-free compatible product, PF (Conformity to RoHS directive, exemption regulations apply) or EF (Conformity to RoHS directive)

• Test equipment L, Q: YHP4191A IMPEDANCE ANALYZER (16092A) [L≦0.1μH]
YHP4194A IMPEDANCE ANALYZER (16085A+16093B+TDK TF-1) [L≧0.12μH]
SRF:HP8753C NETWORK ANALYZER
Rdc:MATSUSHITA VP-2941A DIGITAL MILLIOHM METER

ELECTRICAL CHARACTERISTICS

Inductance (μH)	Inductance tolerance	Q typ.	Test frequency L,Q (MHz)	Self-resonant frequency (MHz)min.	DC resistance (Ω)max.	Rated current*1 (mA)max.	Part No.
47	±5%	20	2.52	17	11.1	80	NLV25T-470J-□*2
56	±5%	20	2.52	16	12.1	75	NLV25T-560J-□
68	±5%	20	2.52	15	16.6	70	NLV25T-680J-□
82	±5%	20	2.52	13	19	66	NLV25T-820J-□
100	±5%	15	0.796	12	21	60	NLV25T-101J-□

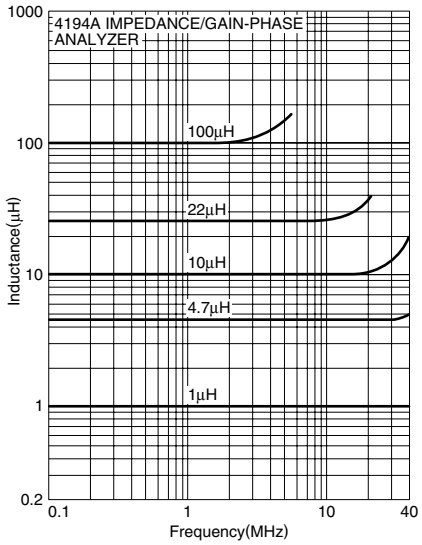
*1 Rated current: Value obtained when current flows and the temperature has risen to 20°C or when DC current flows and the initial value of inductance has fallen by 10%, whichever is smaller.

*2 □: Please specify lead-free compatible product, PF (Conformity to RoHS directive, exemption regulations apply) or EF (Conformity to RoHS directive)

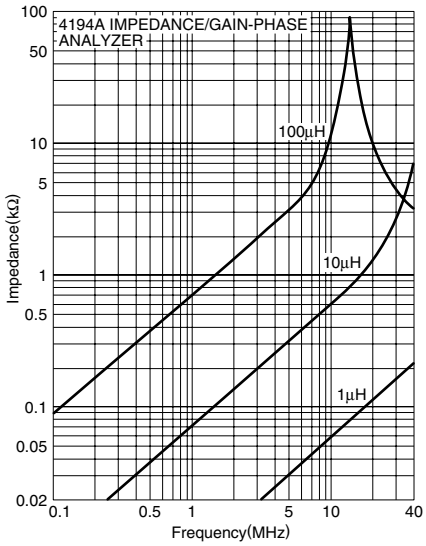
• Test equipment L, Q: HP4194A IMPEDANCE/GAIN PHASE ANALYZER(16085A+16093B+TDK TF-1)
SRF: HP8753C NETWORK ANALYZER
Rdc: MATSUSHITA VP-2941A DIGITAL MILLIOHM METER

TYPICAL ELECTRICAL CHARACTERISTICS

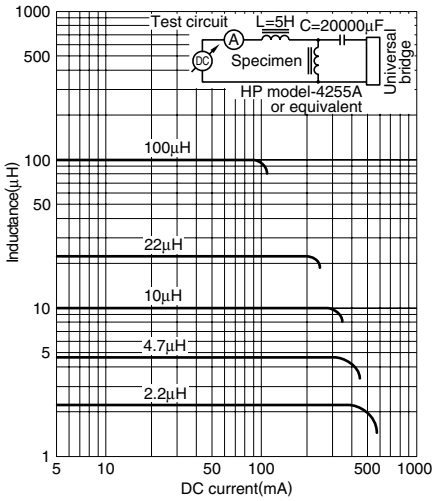
INDUCTANCE vs. FREQUENCY CHARACTERISTICS



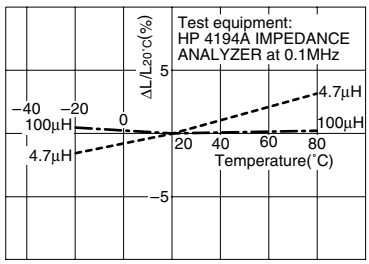
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



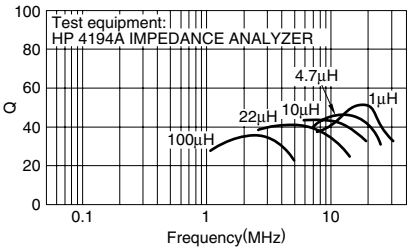
INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



INDUCTANCE CHANGE vs. TEMPERATURE CHARACTERISTICS



Q vs. FREQUENCY CHARACTERISTICS



Inductors for Standard Circuits
Wound/STD

Conformity to RoHS Directive

NLV Series NLV32

FEATURES

- This is a renewed version of NL322522.
- The product has good heat durability that withstands lead-free compatible reflow soldering conditions.
- Lead-free material is used for the plating on the terminal.
- The electrical characteristics, reliability, shape and pad shape are the same as the previous NL series.
- The product uses metal terminals, which realize excellent connection reliability.
- Highly heat resistant thermoplastic resin is used to form the exterior package.
- From 0.01µH to 470µH, all of the products in the E-12 series are J(±5%) tolerance products.
- This product is in compliance with the RoHS Directive. Other products with specifications that do not include exemption regulations are also available.

APPLICATIONS

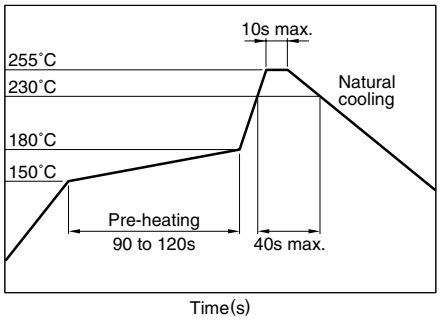
- Audio-visual equipment including TVs, VCRs and digital cameras.
- Electronic equipment used in communication infrastructures including xDSL and mobile base stations.
- Electronic equipment used in onboard automobile equipment including car audio and ECU systems.
- Other electronic equipment including HDDs and ODDs.

SPECIFICATIONS

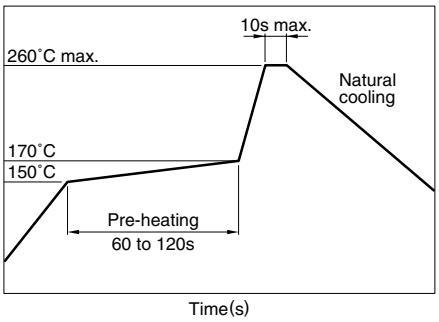
Operating temperature range	–40 to +105°C [Including self-temperature rise]
Storage temperature range	–40 to +105°C

RECOMMENDED SOLDERING CONDITIONS

REFLOW SOLDERING



FLOW SOLDERING



IRON SOLDERING

Tip temperature	300 to 350°C
Heating time	3 seconds/soldering
Soldering rod specifications	Output: 30W Tip diameter: 1mm

- Based on the above conditions, use a maximum product temperature of 260°C and a maximum accumulated heating time of 10 seconds as a guideline.
- Please contact us for details.

PRODUCT IDENTIFICATION

NLV	32	T-	2R2	J	- PF
(1)	(2)	(3)	(4)	(5)	(6)

(1) Series name

(2) Dimensions

32	3.2×2.5×2.2mm (L×W×T)

(3) Packaging style

T	Taping (reel)

(4) Inductance value

010	0.01µH
R10	0.1µH
1R0	1µH
100	10µH
101	100µH

(5) Inductance tolerance

J	±5%

(6) Lead-free compatible product

PF	Conformity to RoHS directive, exemption regulations apply
EF	Conformity to RoHS directive

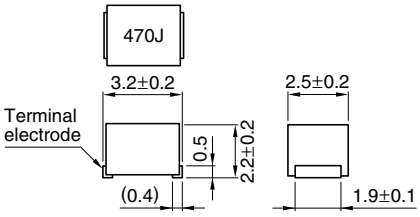
PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	2000 pieces/reel

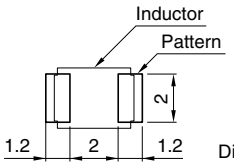
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



Weight: 50mg



Dimensions in mm

ELECTRICAL CHARACTERISTICS

Inductance(μH)	Inductance tolerance	Q min.	Test frequency L,Q (MHz)	Self-resonant frequency (MHz)min.	DC resistance (Ω)max.	Rated current*1 (mA)max.	Part No.
0.01	±5%	15	100	2500	0.13	450	NLV32T-010J-□*2
0.012	±5%	17	100	2300	0.14	450	NLV32T-012J-□
0.015	±5%	19	100	2100	0.16	450	NLV32T-015J-□
0.018	±5%	21	100	1900	0.18	450	NLV32T-018J-□
0.022	±5%	23	100	1700	0.2	450	NLV32T-022J-□
0.027	±5%	23	100	1500	0.22	450	NLV32T-027J-□
0.033	±5%	25	100	1400	0.24	450	NLV32T-033J-□
0.039	±5%	25	100	1300	0.27	450	NLV32T-039J-□
0.047	±5%	26	100	1200	0.3	450	NLV32T-047J-□
0.056	±5%	26	100	1100	0.33	450	NLV32T-056J-□
0.068	±5%	27	100	1000	0.36	450	NLV32T-068J-□
0.082	±5%	27	100	900	0.4	450	NLV32T-082J-□
0.1	±5%	28	100	700	0.44	450	NLV32T-R10J-□
0.12	±5%	30	25.2	500	0.22	450	NLV32T-R12J-□
0.15	±5%	30	25.2	450	0.25	450	NLV32T-R15J-□
0.18	±5%	30	25.2	400	0.28	450	NLV32T-R18J-□
0.22	±5%	30	25.2	350	0.32	450	NLV32T-R22J-□
0.27	±5%	30	25.2	320	0.36	450	NLV32T-R27J-□
0.33	±5%	30	25.2	300	0.4	450	NLV32T-R33J-□
0.39	±5%	30	25.2	250	0.45	450	NLV32T-R39J-□
0.47	±5%	30	25.2	220	0.5	450	NLV32T-R47J-□
0.56	±5%	30	25.2	180	0.55	450	NLV32T-R56J-□
0.68	±5%	30	25.2	160	0.6	450	NLV32T-R68J-□
0.82	±5%	30	25.2	140	0.65	450	NLV32T-R82J-□
1	±5%	30	7.96	120	0.7	400	NLV32T-1R0J-□
1.2	±5%	30	7.96	100	0.75	390	NLV32T-1R2J-□
1.5	±5%	30	7.96	85	0.85	370	NLV32T-1R5J-□
1.8	±5%	30	7.96	80	0.9	350	NLV32T-1R8J-□
2.2	±5%	30	7.96	75	1	320	NLV32T-2R2J-□
2.7	±5%	30	7.96	70	1.1	290	NLV32T-2R7J-□
3.3	±5%	30	7.96	60	1.2	260	NLV32T-3R3J-□
3.9	±5%	30	7.96	55	1.3	250	NLV32T-3R9J-□
4.7	±5%	30	7.96	50	1.5	220	NLV32T-4R7J-□
5.6	±5%	30	7.96	45	1.6	200	NLV32T-5R6J-□
6.8	±5%	30	7.96	40	1.8	180	NLV32T-6R8J-□
8.2	±5%	30	7.96	35	2	170	NLV32T-8R2J-□
10	±5%	30	2.52	30	2.1	150	NLV32T-100J-□
12	±5%	30	2.52	20	2.5	140	NLV32T-120J-□

*1 Rated current: Value obtained when current flows and the temperature has risen to 20°C or when DC current flows and the initial value of inductance has fallen by 10%, whichever is smaller.

*2 □: Please specify lead-free compatible product, PF (Conformity to RoHS directive, exemption regulations apply) or EF (Conformity to RoHS directive)

- Test equipment L, Q: YHP4191A IMPEDANCE ANALYZER (16092A) [L≦0.1μH]
  YHP4194A IMPEDANCE ANALYZER (16085A+16093B+TDK TF-1) [L≧0.12μH]
  SRF:HP8753C NETWORK ANALYZER
  Rdc:MATSUSHITA VP-2941A DIGITAL MILLIOHM METER

ELECTRICAL CHARACTERISTICS

Inductance(μH)	Inductance tolerance	Q min.	Test frequency L,Q (MHz)	Self-resonant frequency (MHz)min.	DC resistance (Ω)max.	Rated current*1 (mA)max.	Part No.
15	±5%	30	2.52	20	2.8	130	NLV32T-150J-□*2
18	±5%	30	2.52	20	3.3	120	NLV32T-180J-□
22	±5%	30	2.52	20	3.7	110	NLV32T-220J-□
27	±5%	30	2.52	20	5	80	NLV32T-270J-□
33	±5%	30	2.52	17	5.6	70	NLV32T-330J-□
39	±5%	30	2.52	16	6.4	65	NLV32T-390J-□
47	±5%	30	2.52	15	7	60	NLV32T-470J-□
56	±5%	30	2.52	13	8	55	NLV32T-560J-□
68	±5%	30	2.52	12	9	50	NLV32T-680J-□
82	±5%	30	2.52	11	10	45	NLV32T-820J-□
100	±5%	20	0.796	10	10	40	NLV32T-101J-□
120	±5%	20	0.796	10	11	70	NLV32T-121J-□
150	±5%	20	0.796	8	15	65	NLV32T-151J-□
180	±5%	20	0.796	7	17	60	NLV32T-181J-□
220	±5%	20	0.796	7	21	50	NLV32T-221J-□
270	±5%	20	0.796	6	28	45	NLV32T-271J-□
330	±5%	20	0.796	5	34	40	NLV32T-331J-□
390	±5%	20	0.796	5	36	35	NLV32T-391J-□
470	±5%	20	0.796	4	40	25	NLV32T-471J-□

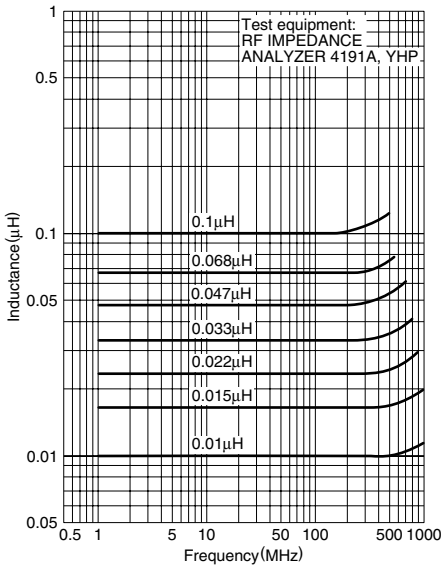
*1 Rated current: Value obtained when current flows and the temperature has risen to 20°C or when DC current flows and the initial value of inductance has fallen by 10%, whichever is smaller.

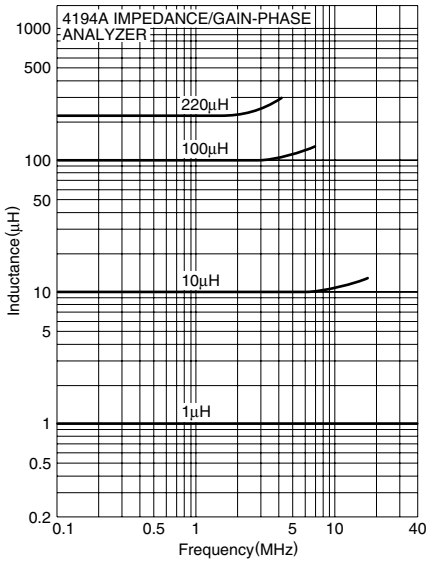
*2 □: Please specify lead-free compatible product, PF (Conformity to RoHS directive, exemption regulations apply) or EF (Conformity to RoHS directive)

• Test equipment L, Q: YHP4194A IMPEDANCE ANALYZER (16085A+16093B+TDK TF-1)
SRF: HP8753C NETWORK ANALYZER
Rdc: MATSUSHITA VP-2941A DIGITAL MILLIOHM METER

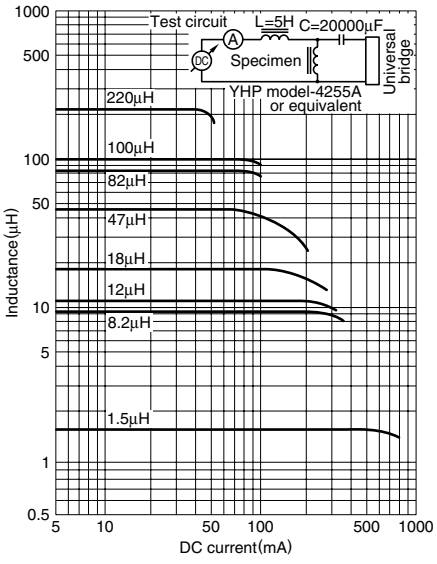
TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. FREQUENCY CHARACTERISTICS





INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



Inductors for Standard Circuits
Wound/STD

Conformity to RoHS Directive

NL Series NL453232

FEATURES

- The product has good heat durability that withstands lead-free compatible reflow soldering conditions.
- Lead-free material is used for the plating on the terminal.
- The product uses metal terminals, which realize excellent connection reliability.
- From 1µH to 1000µH, all of the products in the E-12 series are J(±5%) tolerance products.
- It is a product conforming to RoHS directive.

APPLICATIONS

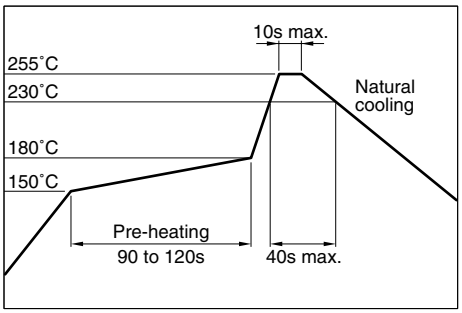
- Electronic equipment used in communication infrastructures including xDSL and mobile base stations.
- Audio-visual equipment including TVs and VCRs.
- Other electronic equipment including HDDs and ODDs.

SPECIFICATIONS

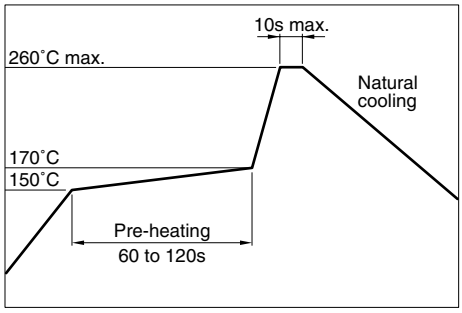
Operating temperature range	–40 to +105°C [Including self-temperature rise]
Storage temperature range	–40 to +105°C

RECOMMENDED SOLDERING CONDITIONS

REFLOW SOLDERING



FLOW SOLDERING



IRON SOLDERING

Tip temperature	300 to 350°C
Heating time	3 seconds/soldering
Soldering rod specifications	Output: 30W Tip diameter: 1mm

- Based on the above conditions, use a maximum product temperature of 260°C and a maximum accumulated heating time of 10 seconds as a guideline.
- Please contact us for details.

PRODUCT IDENTIFICATION

NL	453232	T-	2R2	J	- PF
(1)	(2)	(3)	(4)	(5)	(6)

(1)Series name

(2)Dimensions

453232	4.5×3.2×3.2mm (L×W×T)

(3)Packaging style

T	Taping (reel)

(4)Inductance value

1R0	1µH
100	10µH
101	100µH
102	1000µH

(5)Inductance tolerance

J	±5%

(6) Lead-free compatible product

PF	Lead-free compatible product

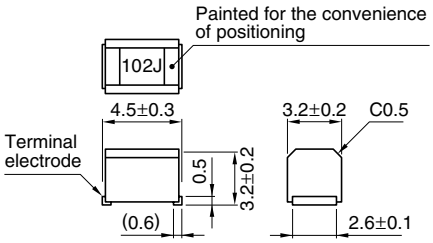
PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	500 pieces/reel

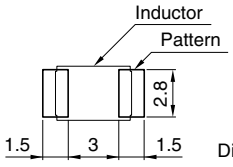
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



Weight: 180mg



Dimensions in mm

ELECTRICAL CHARACTERISTICS

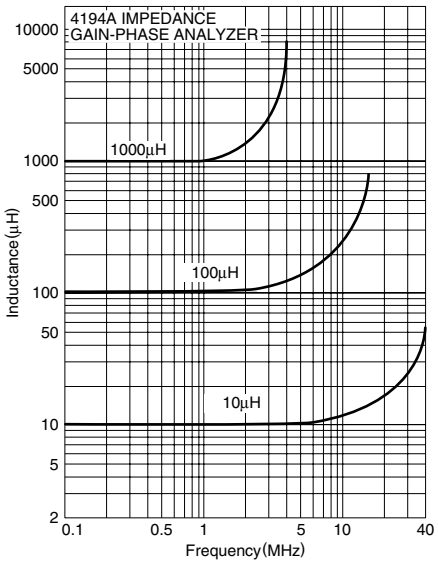
Inductance (μH)	Inductance tolerance	Q min.	Test frequency L, Q (MHz)	Self-resonant frequency (MHz)min.	DC resistance (Ω)max.	Rated current* (mA)max.	Part No.
1	±5%	50	7.96	100	0.5	450	NL453232T-1R0J-PF
1.2	±5%	50	7.96	80	0.55	430	NL453232T-1R2J-PF
1.5	±5%	50	7.96	70	0.6	410	NL453232T-1R5J-PF
1.8	±5%	50	7.96	60	0.65	390	NL453232T-1R8J-PF
2.2	±5%	50	7.96	55	0.7	380	NL453232T-2R2J-PF
2.7	±5%	50	7.96	50	0.75	370	NL453232T-2R7J-PF
3.3	±5%	50	7.96	45	0.8	355	NL453232T-3R3J-PF
3.9	±5%	50	7.96	40	0.9	330	NL453232T-3R9J-PF
4.7	±5%	50	7.96	35	1	315	NL453232T-4R7J-PF
5.6	±5%	50	7.96	33	1.1	300	NL453232T-5R6J-PF
6.8	±5%	50	7.96	27	1.2	285	NL453232T-6R8J-PF
8.2	±5%	50	7.96	25	1.4	270	NL453232T-8R2J-PF
10	±5%	50	2.52	20	1.6	250	NL453232T-100J-PF
12	±5%	50	2.52	18	2	225	NL453232T-120J-PF
15	±5%	50	2.52	17	2.5	200	NL453232T-150J-PF
18	±5%	50	2.52	15	2.8	190	NL453232T-180J-PF
22	±5%	50	2.52	13	3.2	180	NL453232T-220J-PF
27	±5%	50	2.52	12	3.6	170	NL453232T-270J-PF
33	±5%	50	2.52	11	4	160	NL453232T-330J-PF
39	±5%	50	2.52	10	4.5	150	NL453232T-390J-PF
47	±5%	50	2.52	10	5	140	NL453232T-470J-PF
56	±5%	50	2.52	9	5.5	135	NL453232T-560J-PF
68	±5%	50	2.52	9	6	130	NL453232T-680J-PF
82	±5%	50	2.52	8	7	120	NL453232T-820J-PF
100	±5%	40	0.796	8	8	110	NL453232T-101J-PF
120	±5%	40	0.796	6	8	110	NL453232T-121J-PF
150	±5%	40	0.796	5	9	105	NL453232T-151J-PF
180	±5%	40	0.796	5	9.5	102	NL453232T-181J-PF
220	±5%	40	0.796	4	10	100	NL453232T-221J-PF
270	±5%	40	0.796	4	12	92	NL453232T-271J-PF
330	±5%	40	0.796	3.5	14	85	NL453232T-331J-PF
390	±5%	40	0.796	3	16	80	NL453232T-391J-PF
470	±5%	40	0.796	3	26	62	NL453232T-471J-PF
560	±5%	30	0.796	3	30	50	NL453232T-561J-PF
680	±5%	30	0.796	3	30	50	NL453232T-681J-PF
820	±5%	30	0.796	2.5	35	30	NL453232T-821J-PF
1000	±5%	30	0.252	2.5	40	30	NL453232T-102J-PF

* Rated current: Value obtained when current flows and the temperature has risen to 20°C or when DC current flows and the initial value of inductance has fallen by 10%, whichever is smaller.

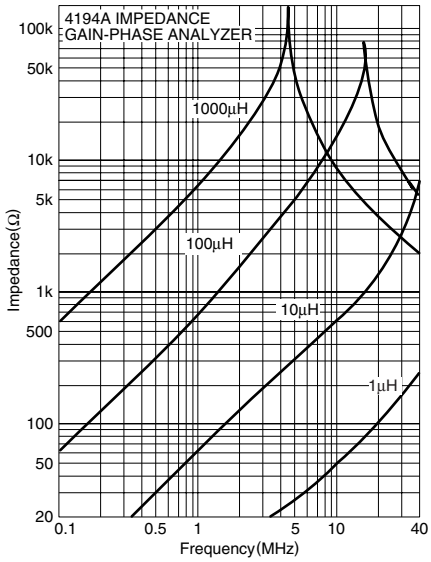
• Test equipment L, Q: YHP4194A IMPEDANCE ANALYZER (16085A+16093B+TDK TF-1)
SRF: HP8753C NETWORK ANALYZER (Zin=Zout=50Ω)
Rdc: MATSUSHITA VP-2941A DIGITAL MILLIOHM METER

TYPICAL ELECTRICAL CHARACTERISTICS

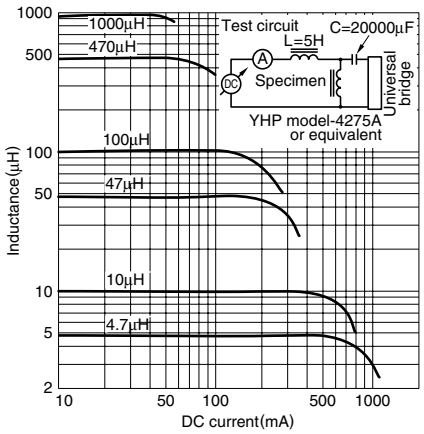
INDUCTANCE vs. FREQUENCY CHARACTERISTICS



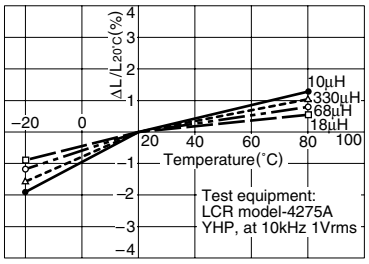
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



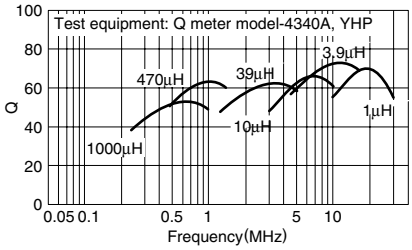
INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



INDUCTANCE CHANGE vs. TEMPERATURE CHARACTERISTICS



Q vs. FREQUENCY CHARACTERISTICS



Inductors for Standard Circuits
Wound/STD

Conformity to RoHS Directive

NL Series NL565050

FEATURES

- The product has good heat durability that withstands lead-free compatible reflow soldering conditions.
- Lead-free material is used for the plating on the terminal.
- The product uses metal terminals, which realize excellent connection reliability.
- It is a product conforming to RoHS directive.

APPLICATIONS

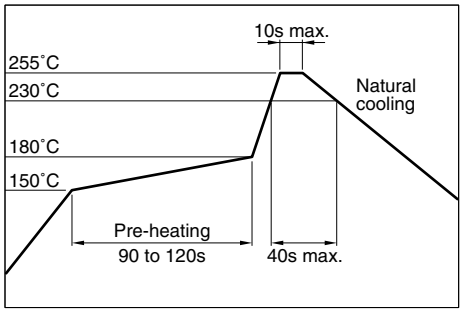
- Electronic equipment used in communication infrastructures including xDSL and mobile base stations.
- Audio-visual equipment including TVs and VCRs.
- Other electronic equipment including HDDs and ODDs.

SPECIFICATIONS

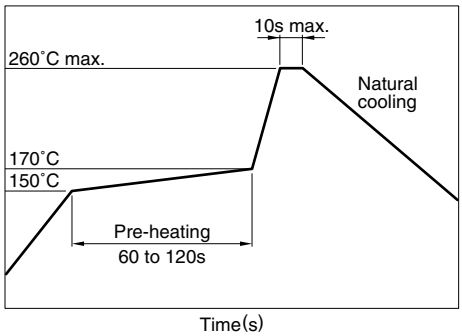
Operating temperature range	–40 to +105°C [Including self-temperature rise]
Storage temperature range	–40 to +105°C

RECOMMENDED SOLDERING CONDITIONS

REFLOW SOLDERING



FLOW SOLDERING



IRON SOLDERING

Tip temperature	300 to 350°C
Heating time	3 seconds/soldering
Soldering rod specifications	Output: 30W Tip diameter: 1mm

- Based on the above conditions, use a maximum product temperature of 260°C and a maximum accumulated heating time of 10 seconds as a guideline.
- Please contact us for details.

PRODUCT IDENTIFICATION

NL	565050	T-	122	J	- PF
(1)	(2)	(3)	(4)	(5)	(6)

(1)Series name

(2)Dimensions

565050	5.6×5.0×5.0mm (L×W×T)

(3)Packaging style

T	Taping (reel)

(4)Inductance value

122	1.2mH
103	10mH

(5)Inductance tolerance

J	±5%

(6) Lead-free compatible product

PF	Lead-free compatible product

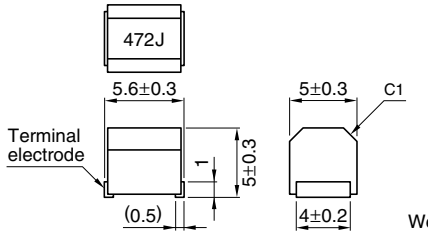
PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	400 pieces/reel

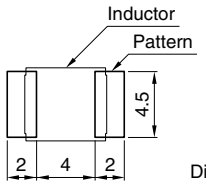
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



Weight: 380mg



Dimensions in mm

ELECTRICAL CHARACTERISTICS

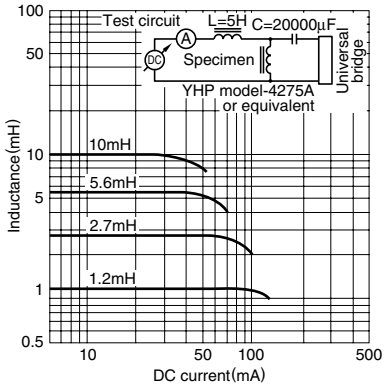
Inductance (mH)	Inductance tolerance	Q min.	Test frequency L, Q (MHz)	Self-resonant frequency (MHz)min.	DC resistance (Ω)max.	Rated current* (mA)max.	Part No.
1.2	±5%	30	0.252	1.5	17	75	NL565050T-122J-PF
1.5	±5%	30	0.252	1.4	20	70	NL565050T-152J-PF
1.8	±5%	30	0.252	1.3	30	60	NL565050T-182J-PF
2.2	±5%	30	0.252	1.2	35	55	NL565050T-222J-PF
2.7	±5%	30	0.252	1.1	55	45	NL565050T-272J-PF
3.3	±5%	30	0.252	1	60	40	NL565050T-332J-PF
3.9	±5%	30	0.252	1	70	38	NL565050T-392J-PF
4.7	±5%	30	0.252	0.9	78	36	NL565050T-472J-PF
5.6	±5%	30	0.252	0.8	85	33	NL565050T-562J-PF
6.8	±5%	30	0.252	0.7	110	30	NL565050T-682J-PF
8.2	±5%	30	0.252	0.6	125	28	NL565050T-822J-PF
10	±5%	20	0.0796	0.5	150	25	NL565050T-103J-PF

* Rated current: Value obtained when current flows and the temperature has risen to 20°C or when DC current flows and the initial value of inductance has fallen by 10%, whichever is smaller.

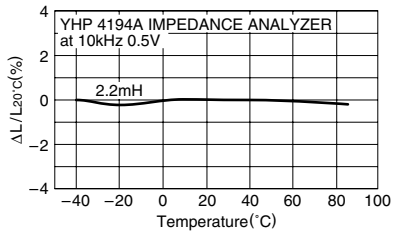
- Test equipment L, Q: YHP4194A IMPEDANCE ANALYZER (16085A+16093B+TDK TF-1)
  SRF: HP8753C NETWORK ANALYZER (Zin=Zout=50Ω)
  Rdc: MATSUSHITA VP-2941A DIGITAL MILLIOHM METER

TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



INDUCTANCE CHANGE vs. TEMPERATURE CHARACTERISTICS



Q vs. FREQUENCY CHARACTERISTICS