Inductors

For General Applications
SMD

NL Series NL4532 Type

FEATURES

- The NL series are available in 5 form factors ranging from 2016 to 5650.
- Utilizing a miniaturized winding structure, these products provide high Q characteristics.
- Inductance tolerance is ±5 percent.

APPLICATIONS

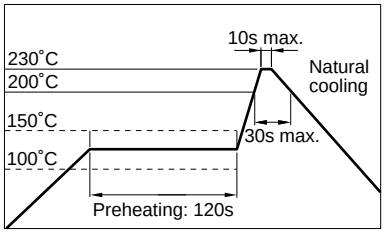
Personal computers, hard disk drives, and other electronic equipment.

SPECIFICATIONS

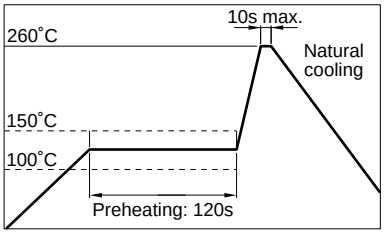
Operating temperature range	–20 to +85°C
Storage temperature range	–40 to +85°C [Unit of products]

RECOMMENDED SOLDERING CONDITIONS

REFLOW SOLDERING



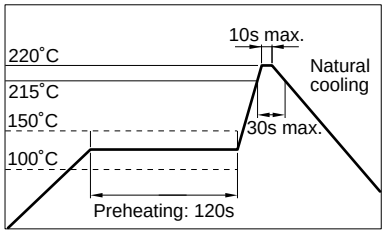
FLOW SOLDERING



IRON SOLDERING

Perform soldering at 250°C on 30W max. within 5 seconds.

VAPOR-PHASING



FLUX AND CLEANING

Rosin-based flux is recommended.

Cleaning Conditions

Solvent	Chlorine-based solvent (Do not use acid or alkali solvents.)
Time	2min max.

PRODUCT IDENTIFICATION

NL	201614	T-	2R2	J
(1)	(2)	(3)	(4)	(5)

(1)Series name

(2)Dimensions L×W×T

201614	2.1×1.6×1.4mm
252018	2.5×2.0×1.8mm
322522	3.2×2.5×2.2mm
453232	4.5×3.2×3.2mm
565050	5.6×5.0×5.0mm

(3)Packaging style

T	Taping (reel)

(4)Inductance value

1R0	1μH
330	33μH

(5)Inductance tolerance

J	±5%
K	±10%

PACKAGING STYLE AND QUANTITIES

Packaging style	Type	Quantity
Taping	NL201614T	2000 pieces/reel
	NL252018T	2000 pieces/reel
	NL322522T	2000 pieces/reel
	NL453232T	500 pieces/reel
	NL565050T	400 pieces/reel

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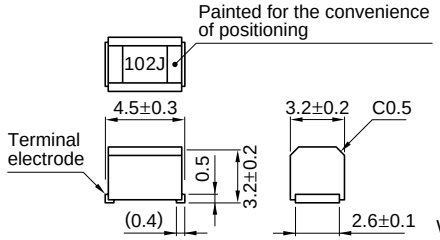
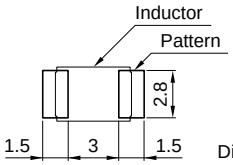
SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



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.
1.0	±5%	50	7.96	100.0	0.50	450	NL453232T-1R0J
1.2	±5%	50	7.96	80.0	0.55	430	NL453232T-1R2J
1.5	±5%	50	7.96	70.0	0.60	410	NL453232T-1R5J
1.8	±5%	50	7.96	60.0	0.65	390	NL453232T-1R8J
2.2	±5%	50	7.96	55.0	0.70	380	NL453232T-2R2J
2.7	±5%	50	7.96	50.0	0.75	370	NL453232T-2R7J
3.3	±5%	50	7.96	45.0	0.80	355	NL453232T-3R3J
3.9	±5%	50	7.96	40.0	0.90	330	NL453232T-3R9J
4.7	±5%	50	7.96	35.0	1.00	315	NL453232T-4R7J
5.6	±5%	50	7.96	33.0	1.10	300	NL453232T-5R6J
6.8	±5%	50	7.96	27.0	1.20	285	NL453232T-6R8J
8.2	±5%	50	7.96	25.0	1.40	270	NL453232T-8R2
10.0	±5%	50	2.52	20.0	1.60	250	NL453232T-100J
12.0	±5%	50	2.52	18.0	2.00	225	NL453232T-120J
15.0	±5%	50	2.52	17.0	2.50	200	NL453232T-150J
18.0	±5%	50	2.52	15.0	2.80	190	NL453232T-180J
22.0	±5%	50	2.52	13.0	3.20	180	NL453232T-220J
27.0	±5%	50	2.52	12.0	3.60	170	NL453232T-270J
33.0	±5%	50	2.52	11.0	4.00	160	NL453232T-330J
39.0	±5%	50	2.52	10.0	4.50	150	NL453232T-390J
47.0	±5%	50	2.52	10.0	5.00	140	NL453232T-470J
56.0	±5%	50	2.52	9.0	5.50	135	NL453232T-560J
68.0	±5%	50	2.52	9.0	6.00	130	NL453232T-680J
82.0	±5%	50	2.52	8.0	7.00	120	NL453232T-820J
100.0	±5%	40	0.796	8.0	8.00	110	NL453232T-101J
120.0	±5%	40	0.796	6.0	8.00	110	NL453232T-121J
150.0	±5%	40	0.796	5.0	9.00	105	NL453232T-151J
180.0	±5%	40	0.796	5.0	9.50	102	NL453232T-181J
220.0	±5%	40	0.796	4.0	10.00	100	NL453232T-221J
270.0	±5%	40	0.796	4.0	12.00	92	NL453232T-271J
330.0	±5%	40	0.796	3.5	14.00	85	NL453232T-331J
390.0	±5%	40	0.796	3.0	16.00	80	NL453232T-391J
470.0	±5%	40	0.796	3.0	26.00	62	NL453232T-471J
560.0	±5%	30	0.796	3.0	30.00	50	NL453232T-561J
680.0	±5%	30	0.796	3.0	30.00	50	NL453232T-681J
820.0	±5%	30	0.796	2.5	35.00	30	NL453232T-821J
1000.0	±5%	30	0.252	2.5	40.00	30	NL453232T-102J

• Inductance tolerance is only standard.
• 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

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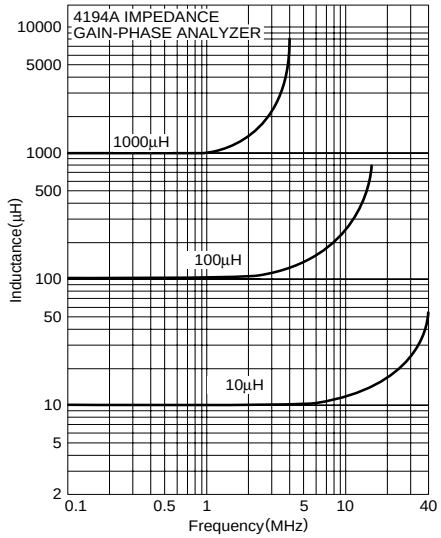
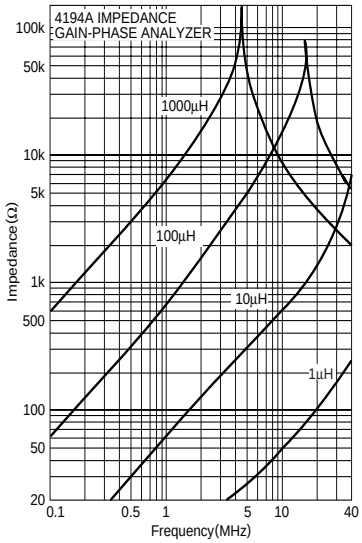
TYPICAL ELECTRICAL CHARACTERISTICS

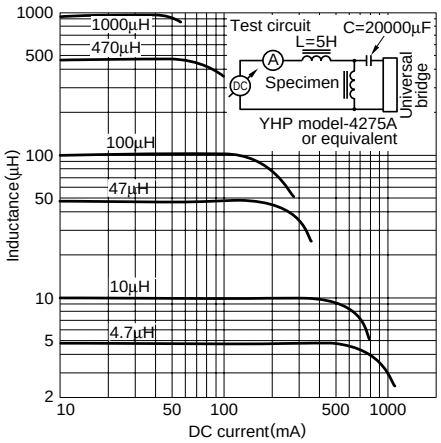
INDUCTANCE vs. FREQUENCY CHARACTERISTICS



IMPEDANCE vs. FREQUENCY CHARACTERISTICS



INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



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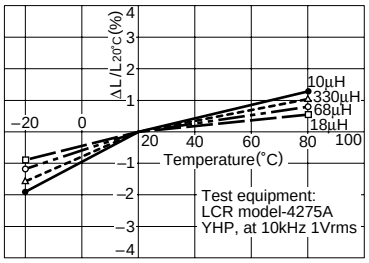
YPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE CHANGE vs. TEMPERATURE CHARACTERISTICS



Q vs. FREQUENCY CHARACTERISTICS