

Inductors

For Power Line SMD

NLC Series NLC3225 Type

FEATURES

- The NLC series feature low DC resistance and high current handling capacities, making them ideal for power supply line applications.
- They are available in form factors ranging from 2520 to 5650.

APPLICATIONS

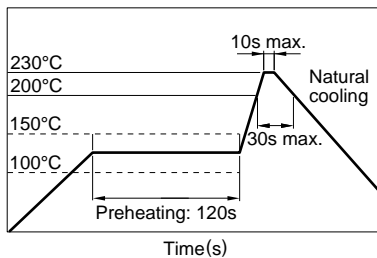
Portable telephones, personal computers, hard disk drives, and other electronic equipment.

SPECIFICATIONS

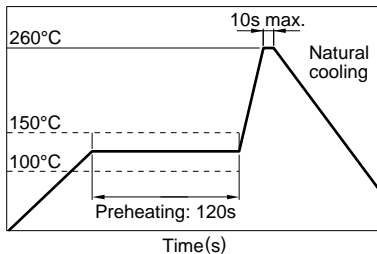
Operating temperature range	-20 to +85°C
Storage temperature range	-40 to +85°C [Unit of products]

RECOMMENDED SOLDERING CONDITIONS

REFLOW SOLDERING



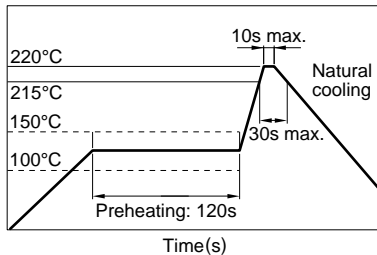
FLOW SOLDERING



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

NLC	252018	T-	2R2	M
(1)	(2)	(3)	(4)	(5)

(1) Series name

(2) Dimensions L×W×T

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)
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(4) Inductance value

1R0	1μH
330	33μH

(5) Inductance tolerance

K	±10%
M	±20%

PACKAGING STYLE AND QUANTITIES

Packaging style	Type	Quantity
Taping	NLC252018T	2000 pieces/reel
	NLC322522T	2000 pieces/reel
	NLC453232T	500 pieces/reel
	NLC565050T	400 pieces/reel

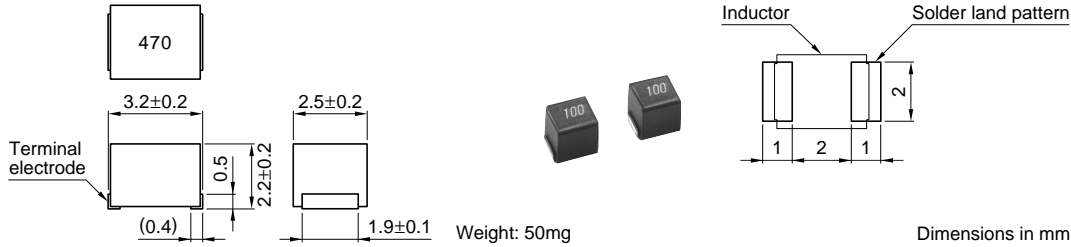
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For Power Line

SMD

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SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



ELECTRICAL CHARACTERISTICS

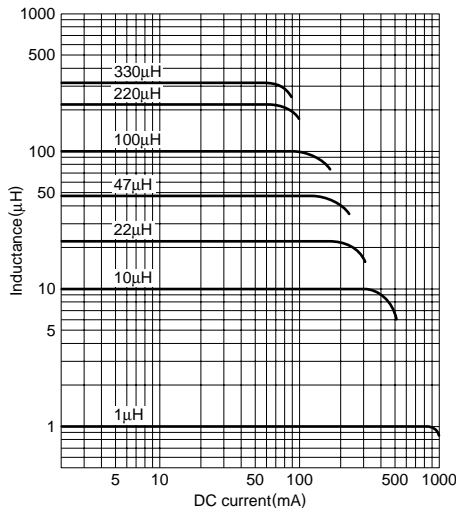
Inductance (μH)	Inductance tolerance	Q min.	Test frequency L, Q (MHz)	Self-resonant frequency (MHz)min.	DC resistance (Ω)±30%	Rated current (mA)max.	Part No.
1	±20%	10	7.96	100	0.08	850	NLC322522T-1R0M
1.5	±20%	10	7.96	80	0.11	700	NLC322522T-1R5M
2.2	±20%	10	7.96	68	0.13	600	NLC322522T-2R2M
3.3	±20%	10	7.96	54	0.16	500	NLC322522T-3R3M
4.7	±20%	15	7.96	46	0.2	430	NLC322522T-4R7M
6.8	±20%	15	7.96	38	0.27	360	NLC322522T-6R8M
10	±10%	15	2.52	30	0.36	300	NLC322522T-100K
15	±10%	15	2.52	26	0.56	250	NLC322522T-150K
22	±10%	15	2.52	21	0.77	210	NLC322522T-220K
33	±10%	15	2.52	17	1.1	170	NLC322522T-330K
47	±10%	15	2.52	14	1.64	150	NLC322522T-470K
68	±10%	15	2.52	12	2.8	120	NLC322522T-680K
100	±10%	15	0.796	10	3.7	100	NLC322522T-101K
150	±10%	20	0.796	8	6.1	85	NLC322522T-151K
220	±10%	20	0.796	7	8.4	70	NLC322522T-221K
330	±10%	20	0.796	6	12.3	60	NLC322522T-331K
470	±10%	20	0.796	4	22	45	NLC322522T-471K
680	±10%	20	0.796	3	28	35	NLC322522T-681K

- Test equipment L, Q: YHP4194A IMPEDANCE ANALYZER+YHP16085A+YHP16093B+TF-1, or equivalent
SRF: HP8753C NETWORK ANALYZER (Z_{in}=Z_{out}=50Ω), or equivalent
Rdc: MATSUSHITA VP-2941A DIGITAL MILLIOHM METER, or equivalent

- Marking: Inductance tolerance is omitted to distinguish NL series.

TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



IMPEDANCE vs. FREQUENCY CHARACTERISTICS

