

# Inductors

For Power Line  
SMD

## NLC Series NLC2520 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 4 form factors ranging from 2520 to 5650.

### APPLICATIONS

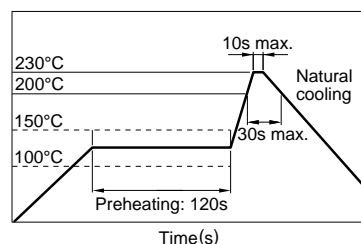
Portable telephones, personal computers, hard disk drives, and other electronic equipment.

### SPECIFICATIONS

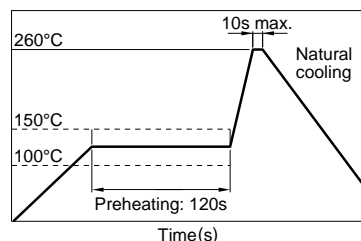
Operating temperature range	-20 to +85°C
Storage temperature range	-40 to +85°C [Unit of products]

### RECOMMENDED SOLDERING CONDITIONS

#### REFLOW SOLDERING



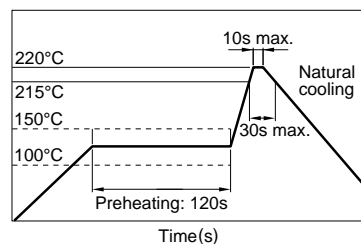
#### FLOW SOLDERING



#### 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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### SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



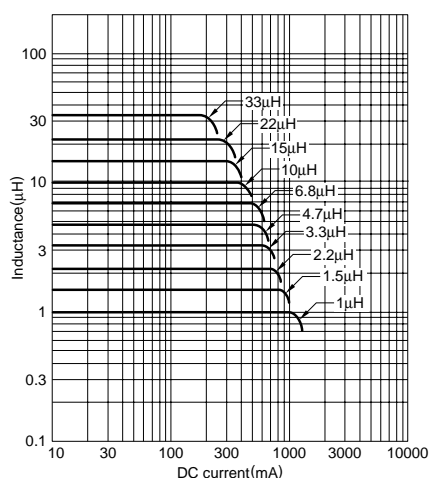
### ELECTRICAL CHARACTERISTICS

Inductance (μH)	Inductance tolerance	Q ref.	Test frequency L, Q (MHz)	Self-resonant frequency (MHz)min.	DC resistance (Ω)±30%	Rated current (mA)max.	Part No.
1	±20%	20	7.96	200	0.34	475	NLC252018T-1R0M
1.5	±20%	20	7.96	165	0.42	435	NLC252018T-1R5M
2.2	±20%	20	7.96	95	0.5	390	NLC252018T-2R2M
3.3	±20%	20	7.96	55	0.65	340	NLC252018T-3R3M
4.7	±20%	20	7.96	43	0.8	285	NLC252018T-4R7M
6.8	±20%	20	7.96	39	1	275	NLC252018T-6R8M
10	±10%	30	2.52	32	1.69	210	NLC252018T-100K
15	±10%	30	2.52	21	2.2	175	NLC252018T-150K
22	±10%	30	2.52	18	2.8	160	NLC252018T-220K
33	±10%	30	2.52	16	4.2	120	NLC252018T-330K

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

### TYPICAL ELECTRICAL CHARACTERISTICS

#### INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



#### IMPEDANCE vs. FREQUENCY CHARACTERISTICS

