

# Inductors

## For Power Line SMD

## NLFC Series NLFC2520 Type

### FEATURES

- The NLFC series features magnetic shielding and is recommended for power supply line applications.
- They are available in form factors ranging from 2016 to 5650.

### APPLICATIONS

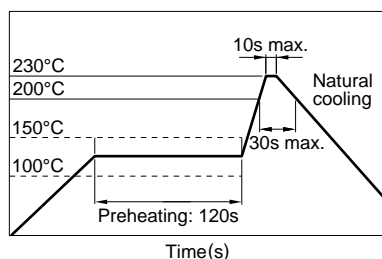
Personal computers, hard disk drives, and other electronic equipment.

### SPECIFICATIONS

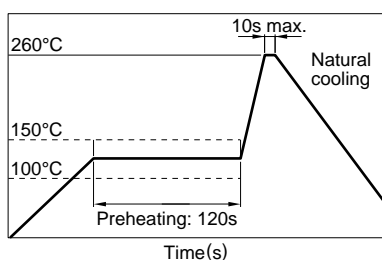
Type	Operating temperature range	Storage temperature range [Unit of products]
NLFC201614	-20 to +85°C	-40 to +85°C
NLFC252018	-20 to +85°C	-40 to +85°C
NLFC322522	-20 to +85°C	-40 to +85°C
NLFC453232	-20 to +80°C	-40 to +80°C
NLFC565050	-20 to +85°C	-40 to +85°C

### RECOMMENDED SOLDERING CONDITIONS

#### REFLOW SOLDERING



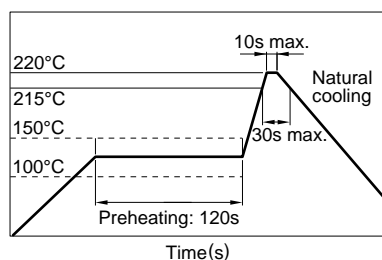
#### FLOW SOLDERING



#### 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

NLFC	201614	T-	2R2	M
(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)
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(4) Inductance value

1R0	1μH
220	22μH

(5) Inductance tolerance

K	±10%
M	±20%

### PACKAGING STYLE AND QUANTITIES

Packaging style	Type	Quantity
Taping	NLFC201614T	2000 pieces/reel
	NLFC252018T	2000 pieces/reel
	NLFC322522T	2000 pieces/reel
	NLFC453232T	500 pieces/reel
	NLFC565050T	400 pieces/reel

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For Power Line  
SMD

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### SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



### ELECTRICAL CHARACTERISTICS

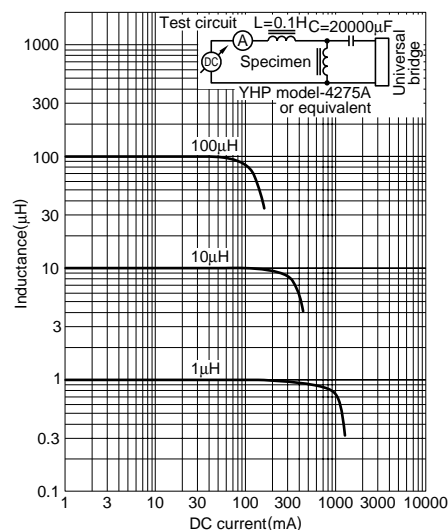
Inductance (μH)	Inductance tolerance	Q ref.	Test frequency L, Q (MHz)	Self-resonant frequency (MHz)min.	DC resistance (Ω)±30%	Rated current (mA) max.	Part No.
1	±20%	10	7.96	100	0.13	455	NLFC252018T-1R0M
1.5	±20%	10	7.96	80	0.17	350	NLFC252018T-1R5M
2.2	±20%	10	7.96	70	0.2	315	NLFC252018T-2R2M
3.3	±20%	10	7.96	55	0.25	280	NLFC252018T-3R3M
4.7	±20%	10	7.96	45	0.3	210	NLFC252018T-4R7M
6.8	±20%	10	7.96	38	0.35	175	NLFC252018T-6R8M
10	±10%	20	2.52	32	0.5	155	NLFC252018T-100K
15	±10%	20	2.52	28	0.75	130	NLFC252018T-150K
22	±10%	20	2.52	16	1.6	105	NLFC252018T-220K
33	±10%	20	2.52	14	2.1	85	NLFC252018T-330K
47	±10%	20	2.52	11	2.6	60	NLFC252018T-470K
68	±10%	20	2.52	10	3.3	50	NLFC252018T-680K
100	±10%	20	0.796	8	5.5	40	NLFC252018T-101K

• Inductance tolerance: Value of inductance corresponds to inductance value of standard products.

• Test equipment L, Q: YHP4194A IMPEDANCE ANALYZER+YHP16085A+YHP16093B+TF-1  
SRF: HP8753C NETWORK ANALYZER  
Rdc: MATSUSHITA VP-2941A DIGITAL MILLIOHM METER

### TYPICAL ELECTRICAL CHARACTERISTICS

#### INDUCTANCE vs. FREQUENCY CHARACTERISTICS



#### IMPEDANCE vs. FREQUENCY CHARACTERISTICS

