

# Inductors

## For Power Line SMD

## NLFC Series NLFC4532 Type

### FEATURES

- The NLFC series features magnetic shielding and is recommended for power supply line applications.
- They are available in 4 form factors ranging from 2016 to 4532.

### APPLICATIONS

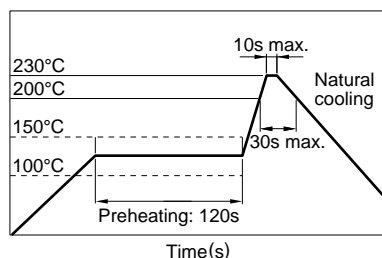
Personal computers, hard disk drives, and other electronic equipment.

### SPECIFICATIONS

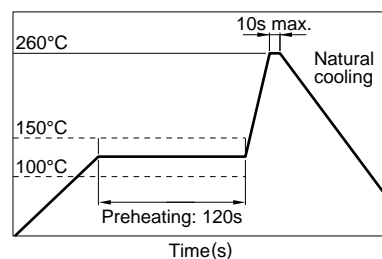
Type	Operating temperature range	Storage temperature range [Unit of products]
NLFC201614	-20 to +80°C	-40 to +85°C
NLFC252018	-20 to +80°C	-40 to +85°C
NLFC322522	-20 to +80°C	-40 to +85°C
NLFC453232	-20 to +80°C	-40 to +80°C

### RECOMMENDED SOLDERING CONDITIONS

#### REFLOW SOLDERING



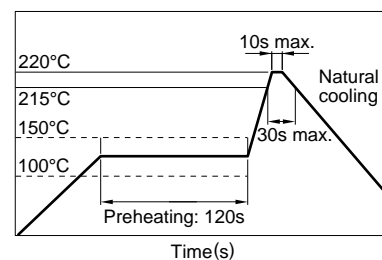
#### FLOW SOLDERING



#### 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

(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

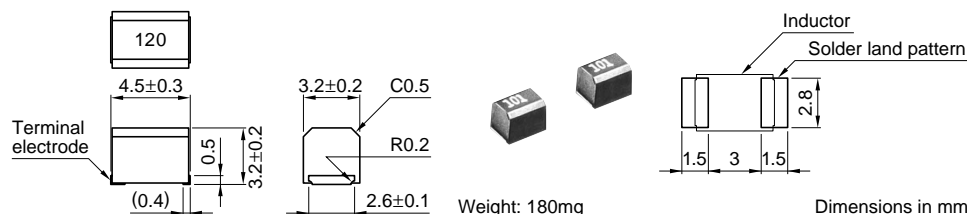
Packaging style	Type	Quantity
Taping	NLFC201614T	2000 pieces/reel
	NLFC252018T	2000 pieces/reel
	NLFC322522T	2000 pieces/reel
	NLFC453232T	500 pieces/reel

# Inductors

For Power Line  
SMD

## NLFC Series NLFC4532 Type

### SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



### ELECTRICAL CHARACTERISTICS

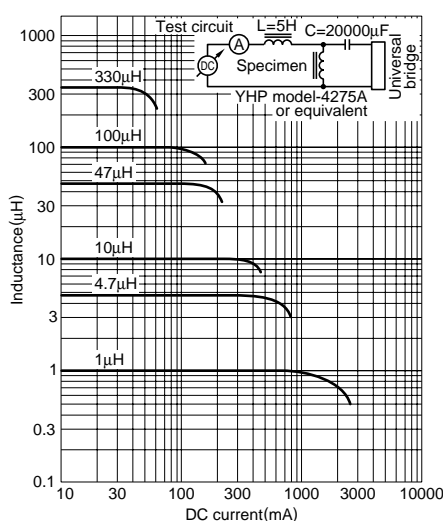
Inductance (μH)	Inductance tolerance	Q ref.	Test frequency L, Q (MHz)	Self-resonant frequency (MHz)min.	DC resistance (Ω)±30%	Rated current (mA)* max.		Part No.
						Based on inductance change	Based on temperature rise	
1	±20%	10	7.96	200	0.05	800	1400	NLFC453232T-1R0M
1.5	±20%	10	7.96	130	0.06	700	1200	NLFC453232T-1R5M
2.2	±20%	10	7.96	80	0.07	600	1100	NLFC453232T-2R2M
3.3	±20%	10	7.96	45	0.09	460	1050	NLFC453232T-3R3M
4.7	±20%	10	7.96	35	0.1	400	1000	NLFC453232T-4R7M
6.8	±20%	10	7.96	28	0.14	300	840	NLFC453232T-6R8M
10	±10%	10	2.52	22	0.21	250	690	NLFC453232T-100K
15	±10%	10	2.52	20	0.3	200	570	NLFC453232T-150K
22	±10%	10	2.52	18	0.46	170	460	NLFC453232T-220K
33	±10%	10	2.52	14	0.63	140	400	NLFC453232T-330K
47	±10%	10	2.52	11.5	0.85	120	340	NLFC453232T-470K
68	±10%	10	2.52	10	1.2	100	280	NLFC453232T-680K
100	±10%	10	0.796	8	1.7	90	240	NLFC453232T-101K
150	±10%	10	0.796	7	2.3	65	200	NLFC453232T-151K
220	±10%	10	0.796	5.5	3.8	55	160	NLFC453232T-221K
330	±10%	10	0.796	4	6	45	120	NLFC453232T-331K

\* 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+YHP16085A+YHP16093B+TF-1, or equivalent  
SRF:HP8753C NETWORK ANALYZER (Zin=Zout=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

