

Inductors

For Power Line

SMD

NLFC Series NLFC3225 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

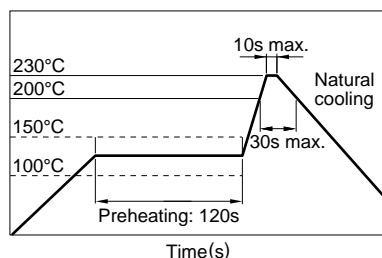
Personal computers, hard disk drives, and other electronic equipment.

SPECIFICATIONS

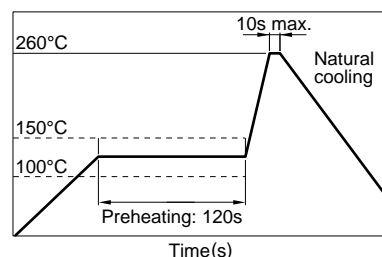
Type	Operating temperature range	Storage temperature range [Unit of products]
NLFC201614	-20 to +80°C	-40 to +85°C
NLFC252018	-20 to +80°C	-40 to +85°C
NLFC322522	-20 to +80°C	-40 to +85°C
NLFC453232	-20 to +80°C	-40 to +80°C

RECOMMENDED SOLDERING CONDITIONS

REFLOW SOLDERING



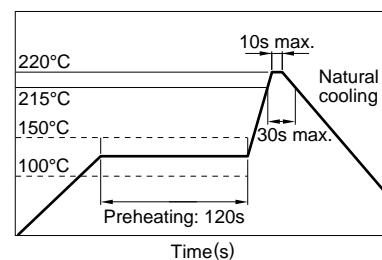
FLOW SOLDERING



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

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SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



ELECTRICAL CHARACTERISTICS

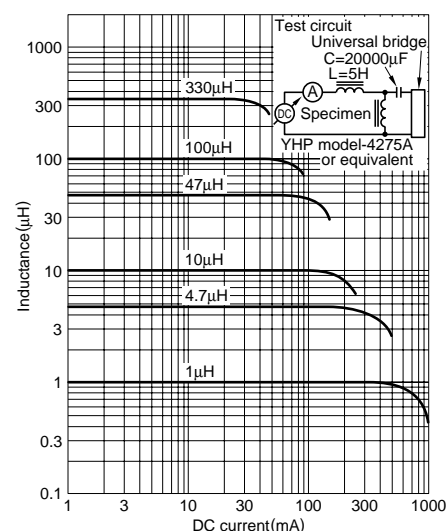
Inductance (μH)	Inductance tolerance	Q ref.	Test frequency L, Q (MHz)	Self-resonant frequency (MHz)min.	DC resistance (Ω)±30%	Rated current (mA)* max.		Part No.
						Based on inductance change	Based on temperature rise	
1	±20%	5	7.96	100	0.06	500	1250	NLFC322522T-1R0M
1.5	±20%	5	7.96	80	0.08	400	1100	NLFC322522T-1R5M
2.2	±20%	5	7.96	68	0.09	340	1000	NLFC322522T-2R2M
3.3	±20%	5	7.96	54	0.11	270	900	NLFC322522T-3R3M
4.7	±20%	5	7.96	46	0.13	240	850	NLFC322522T-4R7M
6.8	±20%	5	7.96	38	0.17	195	750	NLFC322522T-6R8M
10	±10%	10	2.52	30	0.26	165	650	NLFC322522T-100K
15	±10%	10	2.52	26	0.32	145	550	NLFC322522T-150K
22	±10%	10	2.52	21	0.5	115	450	NLFC322522T-220K
33	±10%	10	2.52	17	0.75	95	360	NLFC322522T-330K
47	±10%	10	2.52	14	0.95	85	320	NLFC322522T-470K
68	±10%	10	2.52	12	1.5	70	260	NLFC322522T-680K
100	±10%	10	0.796	10	2.5	55	200	NLFC322522T-101K
150	±10%	10	0.796	8	3.2	45	170	NLFC322522T-151K
220	±10%	10	0.796	7	5.4	35	130	NLFC322522T-221K
330	±10%	10	0.796	5	7	30	110	NLFC322522T-331K
470	±10%	10	0.796	4	16	25	79	NLFC322522T-471K
680	±10%	10	0.796	3	20	20	70	NLFC322522T-681K
1000	±10%	10	0.252	2.4	24	15	63	NLFC322522T-102K

* 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

