

Inductors

For Power Line SMD

NLFC Series NLFC2016 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

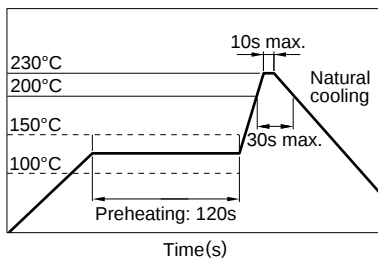
Personal computers, hard disk drives, and other electronic equipment.

SPECIFICATIONS

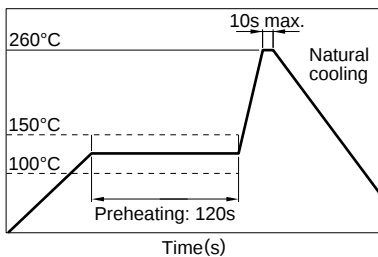
Type	Operating temperature range	Storage temperature range [Unit of products]
NLFC201614	-20 to +80°C	-40 to +85°C
NLFC252018	-20 to +80°C	-40 to +85°C
NLFC322522	-20 to +80°C	-40 to +85°C
NLFC453232	-20 to +80°C	-40 to +80°C
NLFC565050	-20 to +85°C	-40 to +85°C

RECOMMENDED SOLDERING CONDITIONS

REFLOW SOLDERING



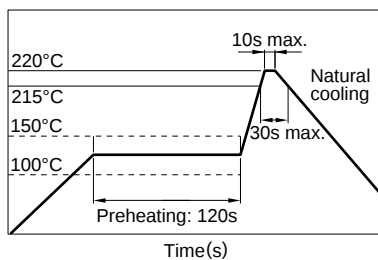
FLOW SOLDERING



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

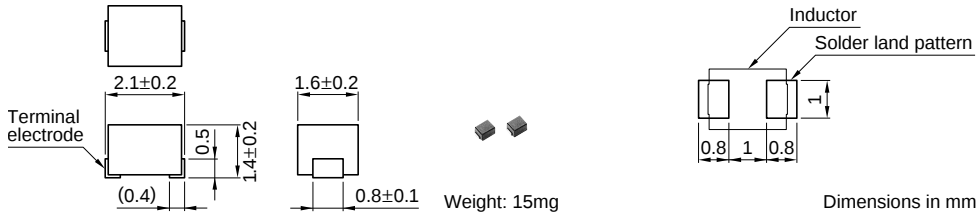
Packaging style	Type	Quantity
Taping	NLFC201614T	2000 pieces/reel
	NLFC252018T	2000 pieces/reel
	NLFC322522T	2000 pieces/reel
	NLFC453232T	500 pieces/reel
	NLFC565050T	400 pieces/reel

Inductors

For Power Line
SMD

NLFC Series NLFC2016 Type

SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



ELECTRICAL CHARACTERISTICS

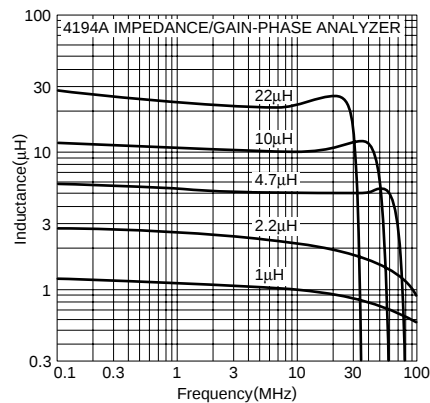
Inductance (μH)	Inductance tolerance	Q ref.	Test frequency L, Q (MHz)	Self-resonant frequency (MHz)min.	DC resistance (Ω)±30%	Rated current (mA)* max.		Part No.
						Based on inductance change	Based on temperature rise	
1	±20%	5	7.96	100	0.16	300	700	NLFC201614T-1R0M
2.2	±20%	5	7.96	80	0.23	240	620	NLFC201614T-2R2M
4.7	±20%	5	7.96	45	0.4	225	430	NLFC201614T-4R7M
10	±10%	10	2.52	32	0.7	180	300	NLFC201614T-100K
22	±10%	10	2.52	16	1.7	75	220	NLFC201614T-220K

*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.

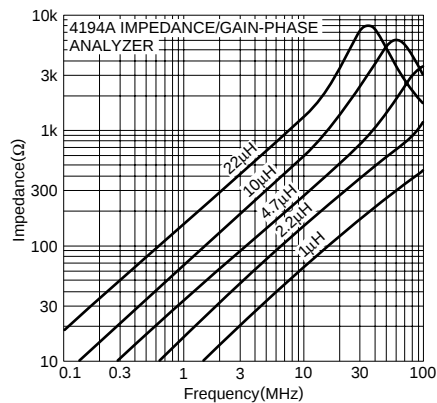
- Test equipment L, Q: YHP4194A IMPEDANCE ANALYZER+YHP16085A+YHP16093B+TF-1, or equivalent
SRF: HP8753C NETWORK ANALYZER (Zin=Zout=50Ω), or equivalent
Rdc: MATSUSHITA VP-2941A DIGITAL MILLIOHM METER, or equivalent

TYPICAL ELECTRICAL CHARACTERISTICS

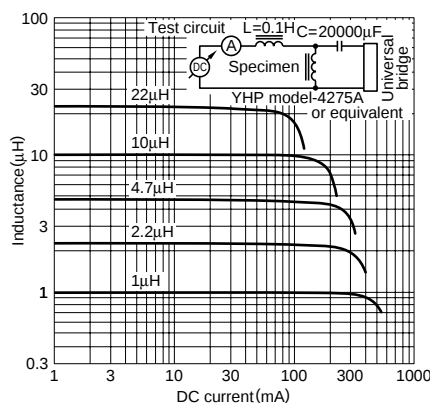
INDUCTANCE vs. FREQUENCY CHARACTERISTICS



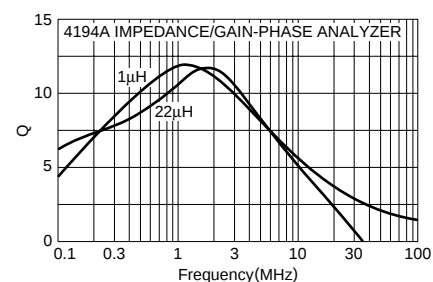
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



Q vs. FREQUENCY CHARACTERISTICS



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