

# SMD Inductors(Coils) For Signal Line(Wound)

Conformity to RoHS Directive

## NL Series NL2016

### FEATURES

- The product has good heat durability that withstands lead-free compatible reflow soldering conditions.
- Lead-free material is used for the plating on the terminal.
- The product uses metal terminals, which realize excellent connection reliability.
- From 1 $\mu$ H to 33 $\mu$ H, all of the products are available in the E-6 series.
- This product conforms to the standards that are slated to be introduced under the RoHS Directive.

### APPLICATIONS

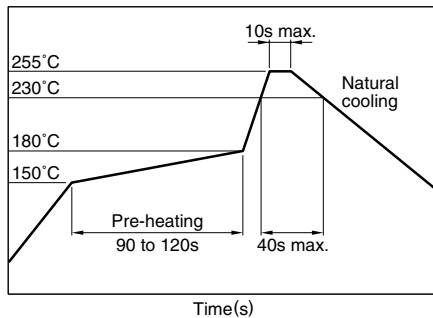
- Audio-visual equipment including TVs, VCRs and digital cameras.
- Electronic equipment used in communication infrastructures including xDSL and mobile base stations.
- Other electronic equipment including HDDs and ODDs.

### SPECIFICATIONS

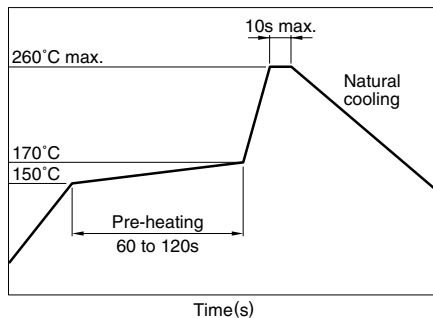
Operating temperature range	-40 to +85°C [Including self-temperature rise]
Storage temperature range	-40 to +85°C

### RECOMMENDED SOLDERING CONDITIONS

#### REFLOW SOLDERING



#### FLOW SOLDERING



### IRON SOLDERING

Tip temperature	300 to 350°C
Heating time	3 seconds/soldering
Soldering rod specifications	Output: 30W Tip diameter: 1mm

- Based on the above conditions, use a maximum product temperature of 260°C and a maximum accumulated heating time of 10 seconds as a guideline.
- Please contact us for details.

### PRODUCT IDENTIFICATION

NL	201614	T-	2R2	J	-PF
(1)	(2)	(3)	(4)	(5)	(6)

(1)Series name

(2)Dimensions

201614	2.1×1.6×1.4mm (L×W×T)
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(3)Packaging style

T	Taping (reel)
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(4)Inductance value

1R0	1 $\mu$ H
330	33 $\mu$ H

(5)Inductance tolerance

J	±5%
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(6) Lead-free compatible product

PF	Lead-free compatible product
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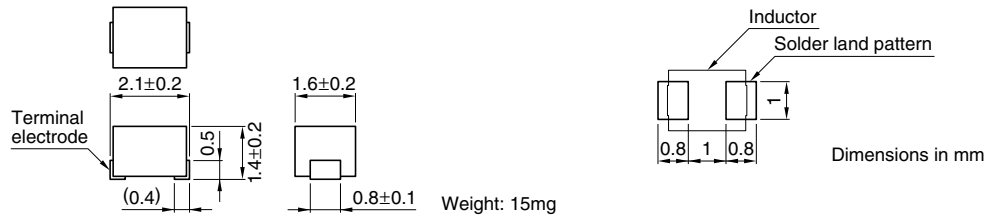
### PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	2000 pieces/reel

• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

## SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



## ELECTRICAL CHARACTERISTICS

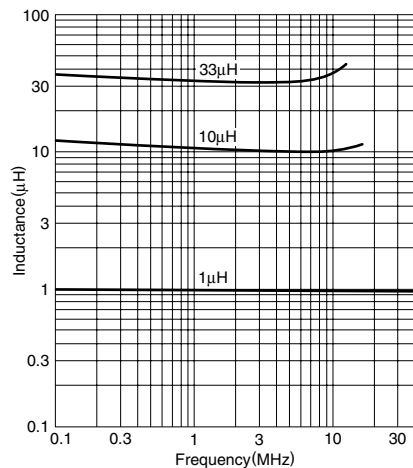
Inductance (μH)	Inductance tolerance	Q min.	Test frequency L, Q (MHz)	Self-resonant frequency (MHz)min.	DC resistance (Ω)max.	Rated current* (mA)max.	Part No.
1	±5%	15	7.96	63	1.2	245	NL201614T-1R0J-PF
1.5	±5%	15	7.96	60	1.45	225	NL201614T-1R5J-PF
2.2	±5%	15	7.96	58	1.8	200	NL201614T-2R2J-PF
3.3	±5%	15	7.96	50	2.3	175	NL201614T-3R3J-PF
4.7	±5%	15	7.96	43	2.8	140	NL201614T-4R7J-PF
6.8	±5%	15	7.96	36	3.4	115	NL201614T-6R8J-PF
10	±5%	10	2.52	30	4.7	98	NL201614T-100J-PF
15	±5%	10	2.52	23	6.5	80	NL201614T-150J-PF
22	±5%	10	2.52	20	8	68	NL201614T-220J-PF
33	±5%	10	2.52	17	10.7	60	NL201614T-330J-PF

\* 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.

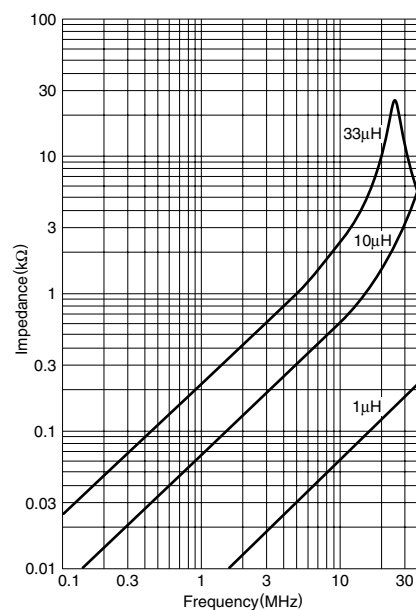
- Test equipment L, Q: YHP4194A IMPEDANCE ANALYZER (16085A+16093B+TDK TF-1)  
SRF:HP8753C NETWORK ANALYZER  
Rdc:MATSUSHITA VP-2941A DIGITAL MILLIOHM METER

## TYPICAL ELECTRICAL CHARACTERISTICS

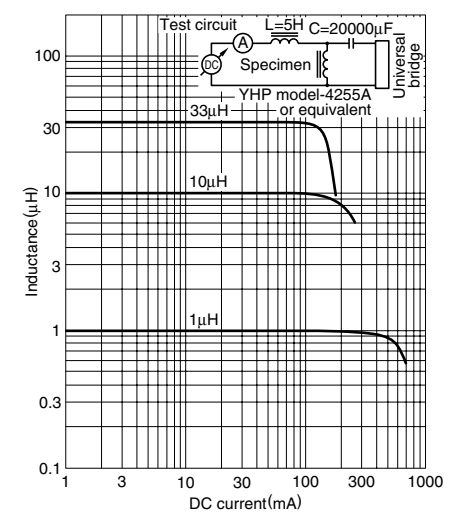
### INDUCTANCE vs. FREQUENCY CHARACTERISTICS



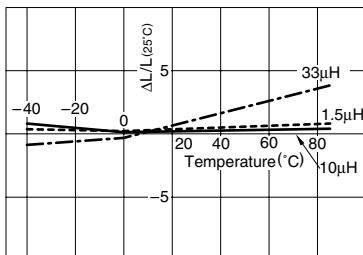
### IMPEDANCE vs. FREQUENCY CHARACTERISTICS



### INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS



### INDUCTANCE CHANGE vs. TEMPERATURE CHARACTERISTICS



### Q vs. FREQUENCY CHARACTERISTICS

