### **Inductors**

# For General Applications SMD

## NL Series NL2016 Type

#### **FEATURES**

- The NL series are available in five form factors ranging from 2016 to 5650.
- Utilizing a miniaturized winding structure, these products provide high Q characteristics.
- Inductance tolerance is ±5 percent.

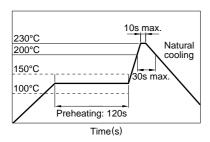
#### **APPLICATIONS**

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

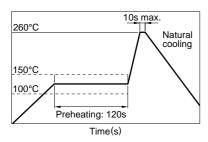
#### **SPECIFICATIONS**

Operating temperature range	−20 to +85°C
Storage temperature range	-40 to +85°C [Unit of products]

## RECOMMENDED SOLDERING CONDITIONS REFLOW SOLDERING



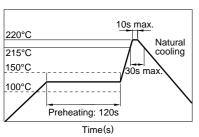
#### **FLOW SOLDERING**



#### **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

NL	201614	T-	2R2	J
(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)	

#### (4)Inductance value

1R0	1μΗ
330	33μΗ

#### (5)Inductance tolerance

J	±5%	
K	±10%	

#### **PACKAGING STYLE AND QUANTITIES**

Packaging style	Туре	Quantity
Taping	NL201614T	2000 pieces/reel
	NL252018T	2000 pieces/reel
	NL322522T	2000 pieces/reel
	NL453232T	500 pieces/reel
	NL565050T	400 pieces/reel

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#### SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



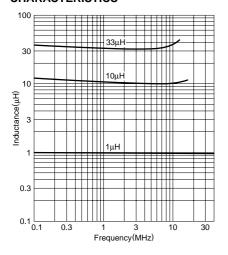
#### **ELECTRICAL CHARACTERISTICS**

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

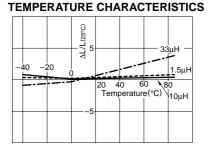
- Inductance tolerance is only standard.
- Test equipment L, Q: YHP4194A IMPEDANCE ANALYZER (16085A+16093B+TDK TF-1) SRF:HP8753C NETWORK ANALYZER Rdc:MATSUSHITA VP-2941A DIGITAL MILLIOHM METER

#### TYPICAL ELECTRICAL CHARACTERISTICS

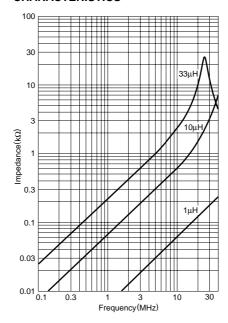
## INDUCTANCE vs. FREQUENCY CHARACTERISTICS



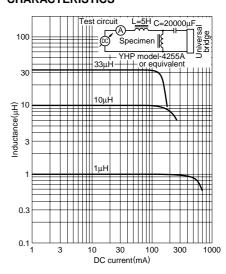
## INDUCTANCE CHANGE vs.



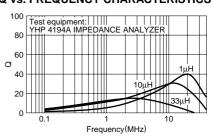
## IMPEDANCE vs. FREQUENCY CHARACTERISTICS



## INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS



### Q vs. FREQUENCY CHARACTERISTICS



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