

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

Conformity to RoHS Directive

## NL Series NL565050

### 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.
- It is a product conforming to RoHS directive.

### APPLICATIONS

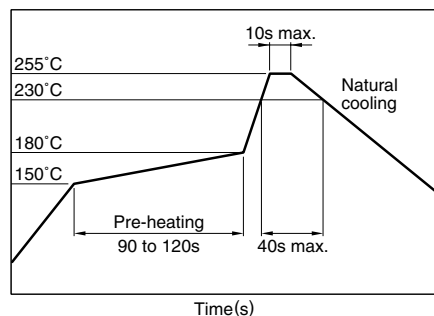
- Electronic equipment used in communication infrastructures including xDSL and mobile base stations.
- Audio-visual equipment including TVs and VCRs.
- Other electronic equipment including HDDs and ODDs.

### SPECIFICATIONS

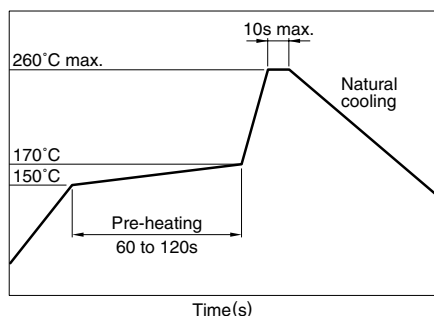
Operating temperature range	-40 to +105°C [Including self-temperature rise]
Storage temperature range	-40 to +105°C

### 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	565050	T-	122	J	-	PF
(1)	(2)	(3)	(4)	(5)	(6)	

(1)Series name

(2)Dimensions

565050	5.6×5.0×5.0mm (L×W×T)
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(3)Packaging style

T	Taping (reel)
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(4)Inductance value

122	1.2mH
103	10mH

(5)Inductance tolerance

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

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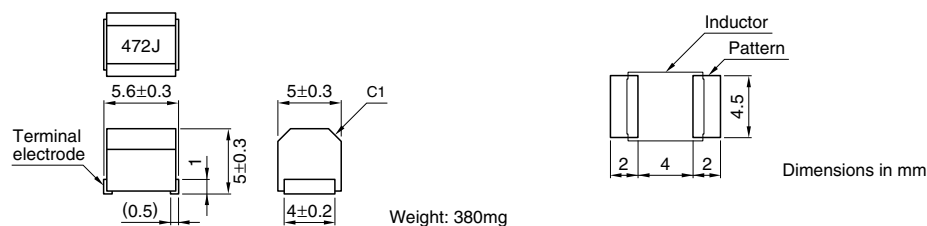
### PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	400 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

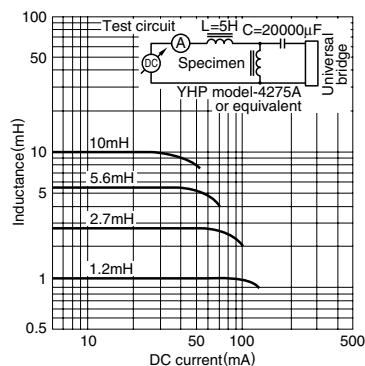
Inductance (mH)	Inductance tolerance	Q min.	Test frequency L, Q (MHz)	Self-resonant frequency (MHz) min.	DC resistance (Ω) max.	Rated current* (mA) max.	Part No.
1.2	±5%	30	0.252	1.5	17	75	NL565050T-122J-PF
1.5	±5%	30	0.252	1.4	20	70	NL565050T-152J-PF
1.8	±5%	30	0.252	1.3	30	60	NL565050T-182J-PF
2.2	±5%	30	0.252	1.2	35	55	NL565050T-222J-PF
2.7	±5%	30	0.252	1.1	55	45	NL565050T-272J-PF
3.3	±5%	30	0.252	1	60	40	NL565050T-332J-PF
3.9	±5%	30	0.252	1	70	38	NL565050T-392J-PF
4.7	±5%	30	0.252	0.9	78	36	NL565050T-472J-PF
5.6	±5%	30	0.252	0.8	85	33	NL565050T-562J-PF
6.8	±5%	30	0.252	0.7	110	30	NL565050T-682J-PF
8.2	±5%	30	0.252	0.6	125	28	NL565050T-822J-PF
10	±5%	20	0.0796	0.5	150	25	NL565050T-103J-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.

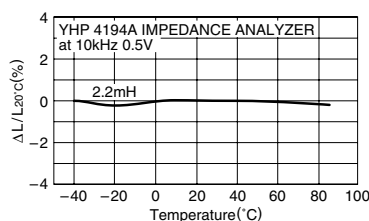
- Test equipment L, Q: YHP4194A IMPEDANCE ANALYZER (16085A+16093B+TDK TF-1)  
SRF: HP8753C NETWORK ANALYZER ( $Z_{in}=Z_{out}=50\Omega$ )  
Rdc: MATSUSHITA VP-2941A DIGITAL MILLIOHM METER

## TYPICAL ELECTRICAL CHARACTERISTICS

### INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



### INDUCTANCE CHANGE vs. TEMPERATURE CHARACTERISTICS



### Q vs. FREQUENCY CHARACTERISTICS

