

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

Conformity to RoHS Directive

## NLCV Series NLCV32

### FEATURES

- This is a renewed version of NLC322522.
- 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 electrical characteristics, reliability, shape and pad shape are the same as the previous NL series.
- The product uses metal terminals, which realize excellent connection reliability.
- Highly heat resistant thermoplastic resin is used to form the exterior package.
- From 1.0 $\mu$ H to 330 $\mu$ H, all of the products are available.
- This product conforms to the standards that are slated to be introduced under the RoHS Directive.

### APPLICATIONS

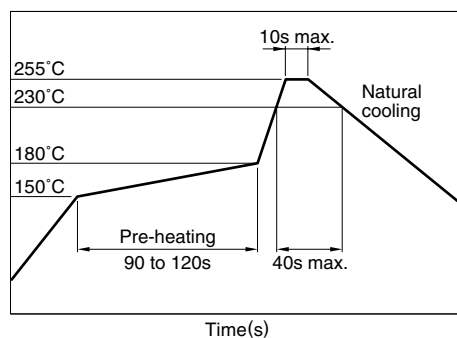
- Audio-visual equipment including TVs, VCRs and digital cameras.
- Electronic equipment used in communication infrastructures including xDSL and mobile base stations.
- Electronic equipment used in onboard automobile equipment including car audio and ECU systems.
- Other electronic equipment including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

### SPECIFICATIONS

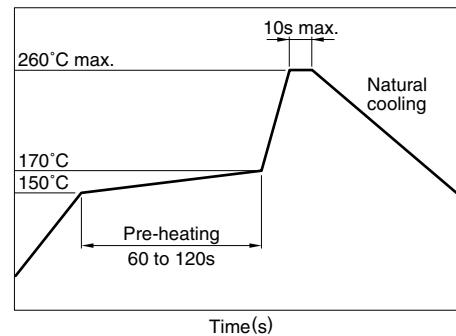
Operating temperature range	-40 to +105°C [Including self-temperature rise]
Storage temperature range	-40 to +105°C

### 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: approx.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

NLCV	32	T-	2R2	M	-	PF
(1)	(2)	(3)	(4)	(5)	(6)	

(1) Series name

(2) Dimensions

32	3.2×2.5×2.2mm (L×W×T)
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(3) Packaging style

T	Taping (reel)
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(4) Inductance value

1R0	1 $\mu$ H
100	10 $\mu$ H
101	100 $\mu$ H

(5) Inductance tolerance

K	±10%
M	±20%

(6) Lead-free compatible product

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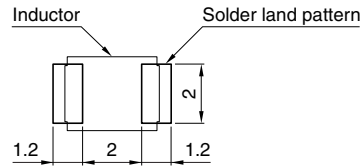
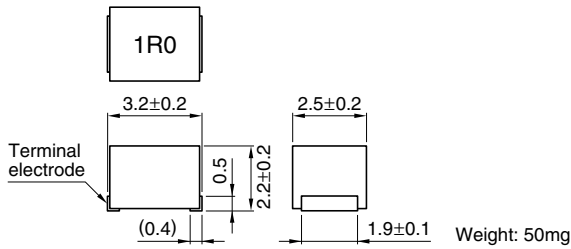
#### PACKAGING STYLE AND QUANTITIES

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



Dimensions in mm

### ELECTRICAL CHARACTERISTICS

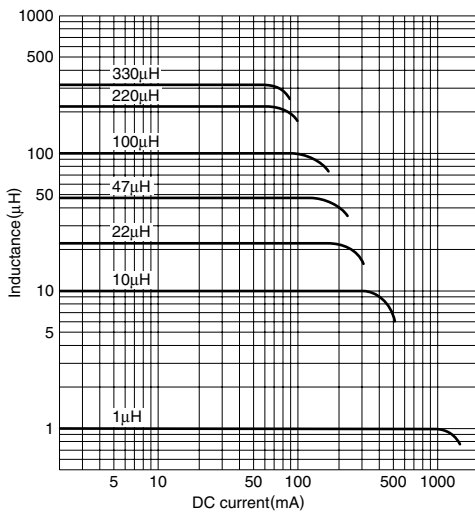
Inductance (μH)	Inductance tolerance	Q typ.	Test frequency L,Q (MHz)	Self-resonant frequency (MHz)min.	DC resistance (Ω)±30%	Rated current* (mA)max.	Part No.
1	±20%	10	7.96	100	0.06	1000	NLCV32T-1R0M-PF
1.5	±20%	10	7.96	80	0.11	830	NLCV32T-1R5M-PF
2.2	±20%	10	7.96	68	0.13	770	NLCV32T-2R2M-PF
3.3	±20%	10	7.96	54	0.16	690	NLCV32T-3R3M-PF
4.7	±20%	15	7.96	46	0.2	620	NLCV32T-4R7M-PF
6.8	±20%	15	7.96	38	0.27	530	NLCV32T-6R8M-PF
10	±10%	15	2.52	30	0.36	450	NLCV32T-100K-PF
15	±10%	15	2.52	26	0.56	370	NLCV32T-150K-PF
22	±10%	15	2.52	21	0.77	300	NLCV32T-220K-PF
33	±10%	15	2.52	17	1.1	240	NLCV32T-330K-PF
47	±10%	15	2.52	14	1.64	180	NLCV32T-470K-PF
68	±10%	15	2.52	12	2.8	140	NLCV32T-680K-PF
100	±10%	15	0.796	10	3.7	120	NLCV32T-101K-PF
150	±10%	20	0.796	8	6.1	100	NLCV32T-151K-PF
220	±10%	20	0.796	7	8.4	80	NLCV32T-221K-PF
330	±10%	20	0.796	6	12.3	70	NLCV32T-331K-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.

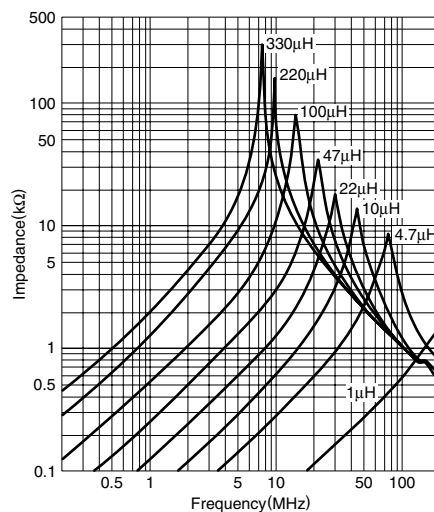
- Test equipment L, Q: YHP4194A IMPEDANCE ANALYZER+YHP16085A+YHP16093B+TF-1, or equivalent  
 SRF: HP8753C NETWORK ANALYZER  
 Rdc: MATSUSHITA VP-2941A DIGITAL MILLIOHM METER, or equivalent

### TYPICAL ELECTRICAL CHARACTERISTICS

#### INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



#### IMPEDANCE vs. FREQUENCY CHARACTERISTICS



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