TDK

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 1.0µH to 330µH, all of the products are available.
- This product is in compliance with the RoHS Directive. Other products with specifications that do not include exemption regulations are also available.

APPLICATIONS

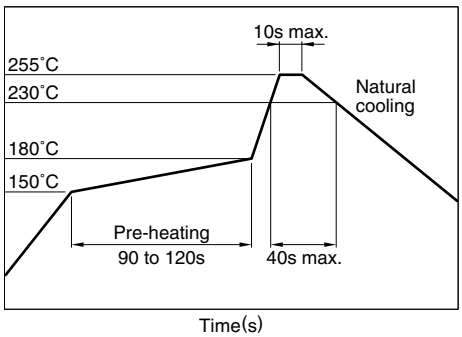
- Audio-visual equipment including TVs, VCRs and digital cameras.
- Electronic equipment used in communication infrastructures including xDSL and mobile base stations.
- Electronic equipment used in onboard automobile equipment including car audio and ECU systems.
- Other electronic equipment including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

SPECIFICATIONS

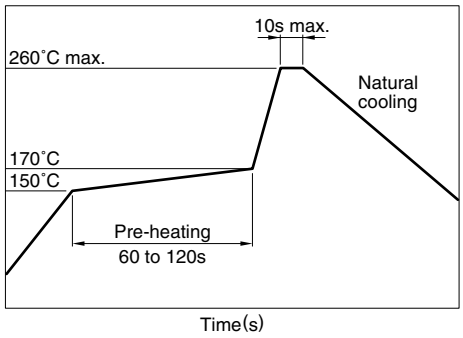
Operating temperature range	–40 to +105°C [Including self-temperature rise]
Storage temperature range	–40 to +105°C

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)

(3) Packaging style

T	Taping (reel)

(4) Inductance value

1R0	1µH
100	10µH
101	100µH

(5) Inductance tolerance

K	±10%
M	±20%

(6) Lead-free compatible product

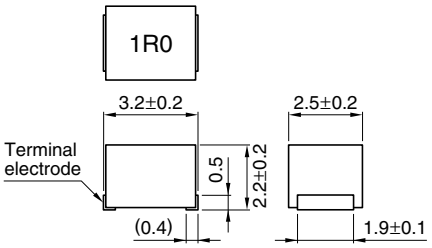
PF	Conformity to RoHS directive, exemption regulations apply
EF	Conformity to RoHS directive

PACKAGING STYLE AND QUANTITIES

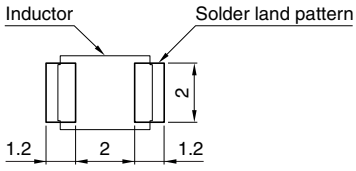
Packaging style	Quantity
Taping	2000 pieces/reel

- 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.

SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



Weight: 50mg



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

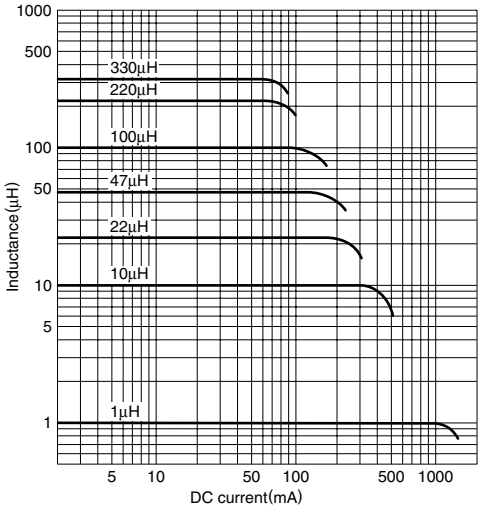
*1 Rated current: Value obtained when current flows and the temperature has risen to 20°C or when DC current flows and the initial value of inductance has fallen by 10%, whichever is smaller.

*2 □: Please specify lead-free compatible product, PF (Conformity to RoHS directive, exemption regulations apply) or EF (Conformity to RoHS directive)

- 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