

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

Conformity to RoHS Directive

## NLCV Series NLCV25

### 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 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 $\mu$ 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.

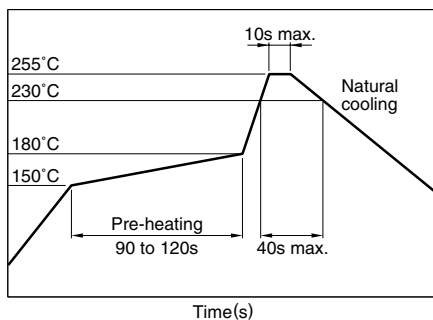
### APPLICATIONS

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

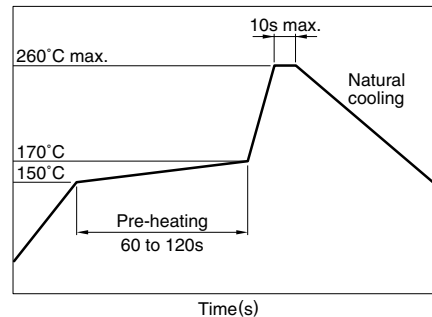
### SPECIFICATIONS

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

(1) Series name

(2) Dimensions

25	2.5×2.0×1.8mm (L×W×T)
----	-----------------------

(3) Packaging style

T	Taping (reel)
---	---------------

(4) Inductance value

1R0	1 $\mu$ H
220	22 $\mu$ H

(5) Inductance tolerance

K	±10%
M	±20%

(6) Lead-free compatible product

PF	Lead-free compatible product
----	------------------------------

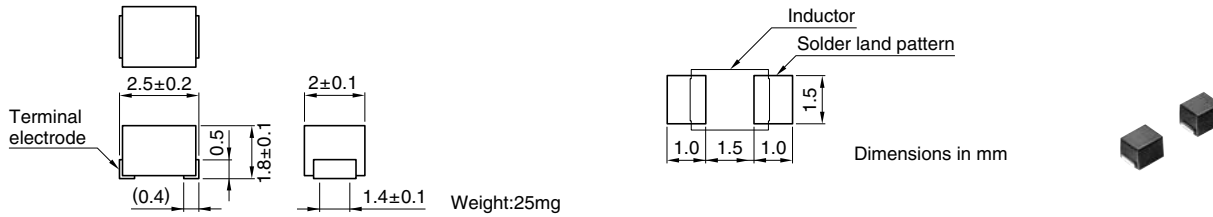
### PACKAGING STYLE AND QUANTITIES

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

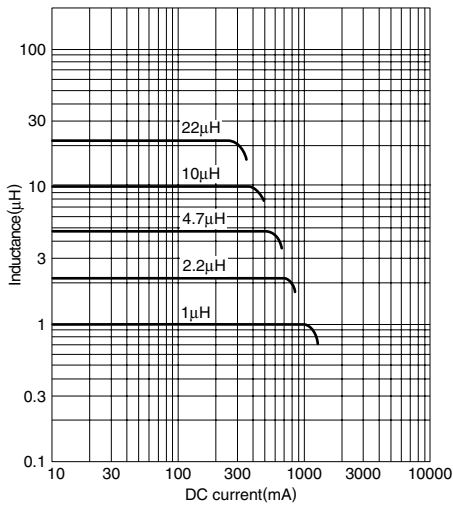
Inductance(μH)	Inductance tolerance	Q ref.	Test frequency L,Q (MHz)	Self-resonant frequency (MHz)min.	DC resistance (Ω)±30%	Rated current* (mA)max.	Part No.
1	±20%	20	7.96	200	0.34	475	NLCV25T-1R0M-PF
1.5	±20%	20	7.96	165	0.42	435	NLCV25T-1R5M-PF
2.2	±20%	20	7.96	95	0.5	390	NLCV25T-2R2M-PF
3.3	±20%	20	7.96	55	0.65	340	NLCV25T-3R3M-PF
4.7	±20%	20	7.96	43	0.8	285	NLCV25T-4R7M-PF
6.8	±20%	20	7.96	39	1	275	NLCV25T-6R8M-PF
10	±10%	30	2.52	32	1.69	210	NLCV25T-100K-PF
15	±10%	30	2.52	21	2.2	175	NLCV25T-150K-PF
22	±10%	30	2.52	18	2.8	160	NLCV25T-220K-PF
33	±10%	30	2.52	16	4.2	120	NLCV25T-330K-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: HP4194A IMPEDANCE/GAIN PHASE ANALYZER+HP16085A+HP16093 B+TF-1  
SRF: HP8753C NETWORK ANALYZER  
Rdc: MATSUSHITA VP-2941A DIGITAL MILLIOHM METER

## TYPICAL ELECTRICAL CHARACTERISTICS

### INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



### IMPEDANCE vs. FREQUENCY CHARACTERISTICS

