# **Inductors**

# For Power Line SMD

# NLCV Series NLCV25 Type

#### **FEATURES**

- Provides high Q while using 252018 size winding construction.
- Environmentally friendly due to use of recyclable plastic (thermoplastic).
- · Logo omitted to simplify production.
- · Maintains interchangeability with earlier NL product series.
- NLV series are E-6 products, while NLCV and NLFV series are E-3 products.

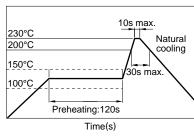
### **APPLICATIONS**

PCs, hard disk drives, and other types of electronics

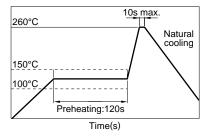
#### **SPECIFICATIONS**

Time	Operating temperature	Storage temperature range[Unit of products]		
Туре	range			
NLV25	−20 to +85°C	–40 to +85°C		
NLCV25	−20 to +85°C	-40 to +85°C		
NLFV25	−20 to +85°C	-40 to +85°C		

# RECOMMENDED SOLDERING CONDITIONS REFLOW SOLDERING



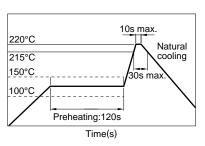
# FLOW SOLDERING



### **IRON SOLDERING**

Perform soldering at 250°C on 30W max. within 5 seconds.

#### **VAPOR-PHASING**



#### PRODUCT IDENTIFICATION

 $\frac{NLV}{(1)} \ \frac{25}{(2)} \ \frac{T\text{-}}{(3)} \ \frac{2R2}{(4)} \ \frac{J}{(5)}$ 

- (1) Series name
- (2) Dimensions LxWxT

252018	2.5×2.0×1.8mm
2020.0	2107 2107 11011111

(3) Packaging style

Т	Taping (reel)

(4) Inductance value

1R0	1μΗ	
220	22uH	

(5) Inductance tolerance

·		
J	±5%	
K	±10%	
M	±20%	

# **PACKAGING STYLE AND QUANTITIES**

 Packaging style
 Type
 Quantity

 DataSheet Taping M
 NLV25T
 2000 pieces/reel

 NLCV25T
 2000 pieces/reel

 NLFV25T
 2000 pieces/reel

# **PRECAUTIONS**

 The exterior of this product can melt since due to thermoplastic construction. During mechanical contact while at the plastic softening temperature, deformation can occur at the contact location. Therefore caution is required when utilizing a soldering iron during the soldering operation.

### **FLUX AND CLEANING**

Rosin-based flux is recommended.

### **Cleaning Conditions**

Solvent	Chlorine-based solvent		
	(Do not use acid or alkali solvents.)		
Time	2min max.		

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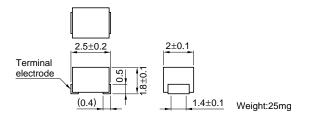


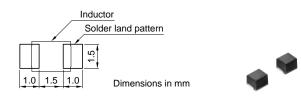
# **Inductors**

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## SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN





### **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%	20	7.96	200	0.34	475	NLCV25T-1R0M
2.2	±20%	20	7.96	95	0.5	390	NLCV25T-2R2M
4.7	±20%	20	7.96	43	0.8	285	NLCV25T-4R7M
10	±10%	30	2.52	32	1.69	210	NLCV25T-100K
22	±10%	30	2.52	18	2.8	160	NLCV25T-220K

<sup>•</sup> Test equipment L, Q: HP4194A IMPEDANCE/GAIN PHASE ANALYZER+HP16085A+HP16093 B+TF-1

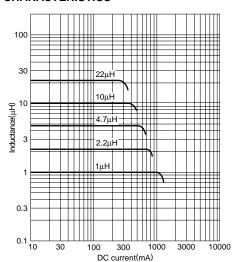
SRF: HP8753C NETWORK ANALYZER

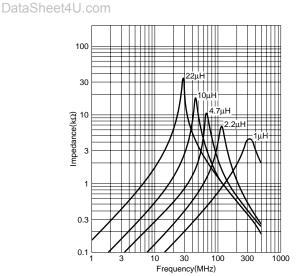
Rdc: MATSUSHITA VP-2941A DIGITAL MILLIOHM METER

# TYPICAL ELECTRICAL CHARACTERISTICS INDUCTANCE CHANGE vs. DC SUPERPOSITION

## **IMPEDANCE vs. FREQUENCY CHARACTERISTICS**







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