

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

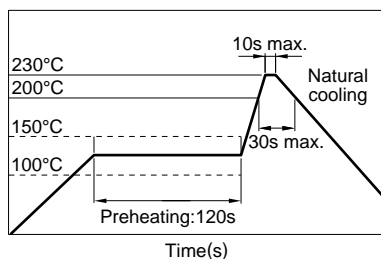
PCs, hard disk drives, and other types of electronics

SPECIFICATIONS

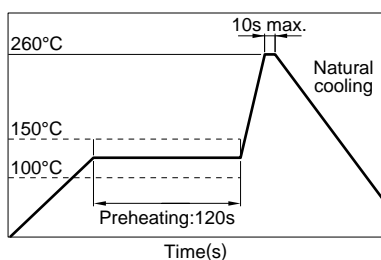
| Type | Operating temperature range | Storage temperature range[Unit of products] |
|--------|-----------------------------|---|
| NLV25 | -20 to +85°C | -40 to +85°C |
| NLCV25 | -20 to +85°C | -40 to +85°C |
| NLFV25 | -20 to +85°C | -40 to +85°C |

RECOMMENDED SOLDERING CONDITIONS

REFLOW SOLDERING



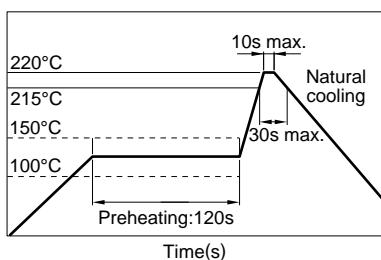
FLOW SOLDERING



IRON SOLDERING

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

VAPOR-PHASING



PRODUCT IDENTIFICATION

| NLV | 25 | T- | 2R2 | J |
|-----|-----|-----|-----|-----|
| (1) | (2) | (3) | (4) | (5) |

(1) Series name

(2) Dimensions LxWxT

| | |
|--------|---------------|
| 252018 | 2.5×2.0×1.8mm |
|--------|---------------|

(3) Packaging style

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

(4) Inductance value

| | |
|-----|------|
| 1R0 | 1μH |
| 220 | 22μH |

(5) Inductance tolerance

| | |
|---|------|
| J | ±5% |
| K | ±10% |
| M | ±20% |

PACKAGING STYLE AND QUANTITIES

| Packaging style | Type | Quantity |
|-----------------|---------|------------------|
| Taping | 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

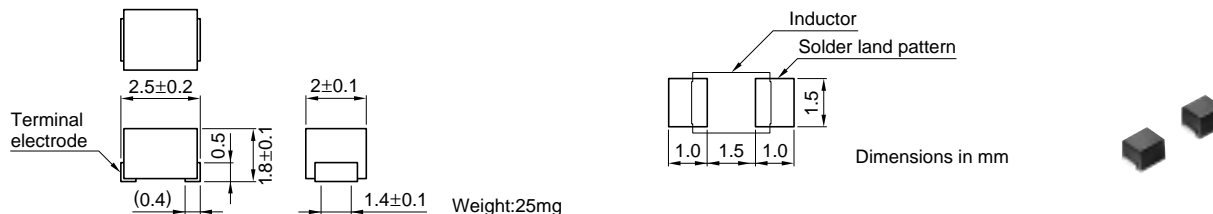
| | |
|---------|---|
| Solvent | Chlorine-based solvent (Do not use acid or alkali solvents.) |
| Time | 2min max. |

Inductors

For Power Line
SMD

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SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



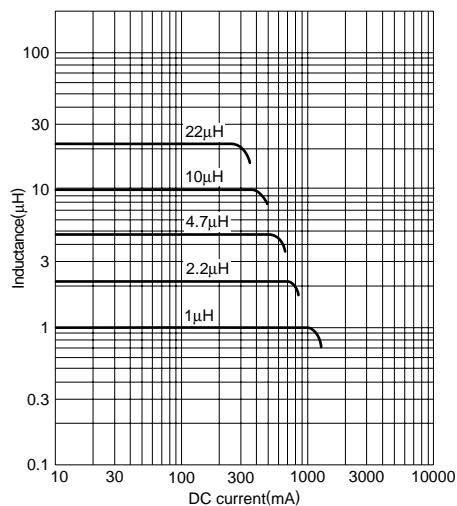
ELECTRICAL CHARACTERISTICS

| Inductance(μ H) | Inductance tolerance | Q typ. | Test frequency L,Q (MHz) | Self-resonant frequency (MHz)min. | DC resistance (Ω) \pm 30% | Rated current (mA)max. | Part No. |
|----------------------|----------------------|--------|--------------------------|-----------------------------------|--------------------------------------|------------------------|--------------|
| 1 | \pm 20% | 20 | 7.96 | 200 | 0.34 | 475 | NLCV25T-1R0M |
| 2.2 | \pm 20% | 20 | 7.96 | 95 | 0.5 | 390 | NLCV25T-2R2M |
| 4.7 | \pm 20% | 20 | 7.96 | 43 | 0.8 | 285 | NLCV25T-4R7M |
| 10 | \pm 10% | 30 | 2.52 | 32 | 1.69 | 210 | NLCV25T-100K |
| 22 | \pm 10% | 30 | 2.52 | 18 | 2.8 | 160 | NLCV25T-220K |

- 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

