

Inductors

For Power Line SMD

NLC Series NLC3225 Type

FEATURES

- The NLC series feature low DC resistance and high current handling capacities, making them ideal for power supply line applications.
- They are available in form factors ranging from 2520 to 5650.

APPLICATIONS

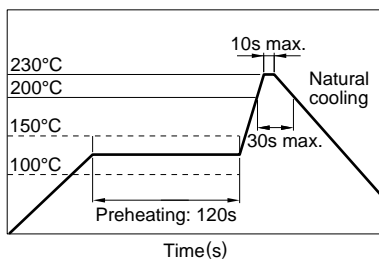
Portable telephones, personal computers, hard disk drives, and other electronic equipment.

SPECIFICATIONS

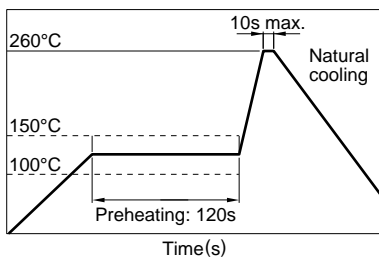
| | |
|-----------------------------|---------------------------------|
| Operating temperature range | -20 to +85°C |
| Storage temperature range | -40 to +85°C [Unit of products] |

RECOMMENDED SOLDERING CONDITIONS

REFLOW SOLDERING



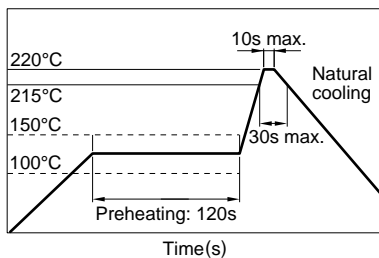
FLOW SOLDERING



IRON SOLDERING

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

VAPOR-PHASING



FLUX AND CLEANING

Rosin-based flux is recommended.

Cleaning Conditions

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

PRODUCT IDENTIFICATION

| | | | | |
|-----|--------|-----|-----|-----|
| NLC | 252018 | T- | 2R2 | M |
| (1) | (2) | (3) | (4) | (5) |

(1) Series name

(2) Dimensions L×W×T

| | |
|--------|---------------|
| 252018 | 2.5×2.0×1.8mm |
| 322522 | 3.2×2.5×2.2mm |
| 453232 | 4.5×3.2×3.2mm |
| 565050 | 5.6×5.0×5.0mm |

(3) Packaging style

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

(4) Inductance value

| | |
|-----|------|
| 1R0 | 1μH |
| 330 | 33μH |

(5) Inductance tolerance

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

PACKAGING STYLE AND QUANTITIES

| Packaging style | Type | Quantity |
|-----------------|------------|------------------|
| Taping | NLC252018T | 2000 pieces/reel |
| | NLC322522T | 2000 pieces/reel |
| | NLC453232T | 500 pieces/reel |
| | NLC565050T | 400 pieces/reel |

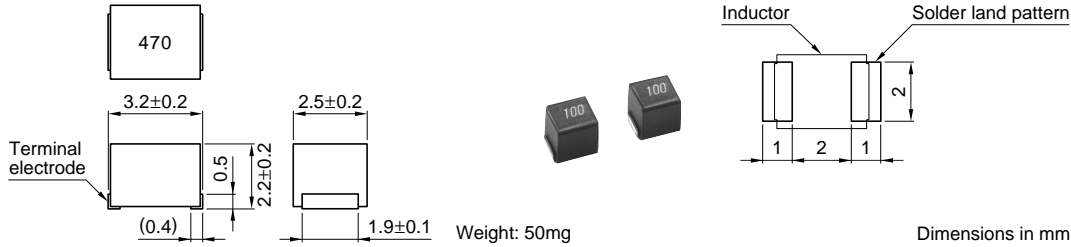
Inductors

For Power Line

SMD

NLC Series NLC3225 Type

SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



ELECTRICAL CHARACTERISTICS

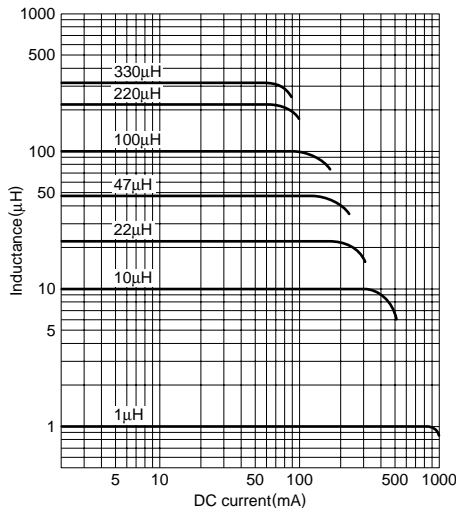
| Inductance (μH) | Inductance tolerance | Q min. | Test frequency L, Q (MHz) | Self-resonant frequency (MHz)min. | DC resistance (Ω)±30% | Rated current (mA)max. | Part No. |
|-----------------|----------------------|--------|---------------------------|-----------------------------------|-----------------------|------------------------|-----------------|
| 1 | ±20% | 10 | 7.96 | 100 | 0.08 | 850 | NLC322522T-1R0M |
| 1.5 | ±20% | 10 | 7.96 | 80 | 0.11 | 700 | NLC322522T-1R5M |
| 2.2 | ±20% | 10 | 7.96 | 68 | 0.13 | 600 | NLC322522T-2R2M |
| 3.3 | ±20% | 10 | 7.96 | 54 | 0.16 | 500 | NLC322522T-3R3M |
| 4.7 | ±20% | 15 | 7.96 | 46 | 0.2 | 430 | NLC322522T-4R7M |
| 6.8 | ±20% | 15 | 7.96 | 38 | 0.27 | 360 | NLC322522T-6R8M |
| 10 | ±10% | 15 | 2.52 | 30 | 0.36 | 300 | NLC322522T-100K |
| 15 | ±10% | 15 | 2.52 | 26 | 0.56 | 250 | NLC322522T-150K |
| 22 | ±10% | 15 | 2.52 | 21 | 0.77 | 210 | NLC322522T-220K |
| 33 | ±10% | 15 | 2.52 | 17 | 1.1 | 170 | NLC322522T-330K |
| 47 | ±10% | 15 | 2.52 | 14 | 1.64 | 150 | NLC322522T-470K |
| 68 | ±10% | 15 | 2.52 | 12 | 2.8 | 120 | NLC322522T-680K |
| 100 | ±10% | 15 | 0.796 | 10 | 3.7 | 100 | NLC322522T-101K |
| 150 | ±10% | 20 | 0.796 | 8 | 6.1 | 85 | NLC322522T-151K |
| 220 | ±10% | 20 | 0.796 | 7 | 8.4 | 70 | NLC322522T-221K |
| 330 | ±10% | 20 | 0.796 | 6 | 12.3 | 60 | NLC322522T-331K |
| 470 | ±10% | 20 | 0.796 | 4 | 22 | 45 | NLC322522T-471K |
| 680 | ±10% | 20 | 0.796 | 3 | 28 | 35 | NLC322522T-681K |

- Test equipment L, Q: YHP4194A IMPEDANCE ANALYZER+YHP16085A+YHP16093B+TF-1, or equivalent
SRF: HP8753C NETWORK ANALYZER (Z_{in}=Z_{out}=50Ω), or equivalent
Rdc: MATSUSHITA VP-2941A DIGITAL MILLIOHM METER, or equivalent

- Marking: Inductance tolerance is omitted to distinguish NL series.

TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



IMPEDANCE vs. FREQUENCY CHARACTERISTICS

