



**THE DATASHEET OF  
NLC322522T-331K**



# Inductors

## For Power Line SMD

# NLC Series NLC3225 Type

(We currently recommend that you switch to the NLCV32 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 ranging from 2520 to 5650 types.

### APPLICATIONS

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

### SPECIFICATIONS

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

### RECOMMENDED SOLDERING CONDITIONS

#### (LEAD-CONTAINING SOLDER)

#### 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 | Please select the solvent of this product avoiding a strong acid and a strong alkali, and considering the environments. |
| Time    | 2min max.   |

### PRODUCT IDENTIFICATION

|     |        |     |     |     |
|-----|--------|-----|-----|-----|
| NLC | 322522 | T-  | 2R2 | M   |
| (1) | (2)    | (3) | (4) | (5) |

(1) Series name

(2) Dimensions L×W×T

|        |               |
|--------|---------------|
| 322522 | 3.2×2.5×2.2mm |
|--------|---------------|

(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 | Quantity         |
| Taping          | 2000 pieces/reel |

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### SMD

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### 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%                 | 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 |

- Test equipment L, Q: YHP4194A IMPEDANCE ANALYZER+YHP16085A+YHP16093B+TF-1, or equivalent  
SRF: HP8753C NETWORK ANALYZER (Z<sub>in</sub>=Z<sub>out</sub>=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



## Looking for pricing, stock, or lifecycle information?

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-  [View NLC322522T-331K on WIN SOURCE](#)
-  [TDK Corporation Information](#)

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-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management