

SMD Inductors(Coils) For Power Line(Wound)

NLCV Series NLCV32T-PFR

FEATURES

- In comparison with an existing series product, rated current maintains 1.4-2 times.
- An inductance change in maximum rating current load is low with -10%.
- Maximum operating temperature is +125°C(Including a selftemperature rise).
- Land pattern is compatible with an existing series product.
- · Lead-free material is used for the plating on the terminal

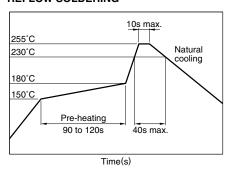
APPLICATIONS

Power supply lines, audio visual systems, electronic equipment for vehicle, IT equipment

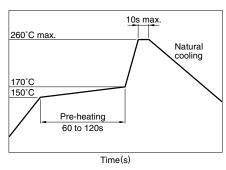
SPECIFICATIONS

| Operating temperature range | −40 to +125°C | | | |
|-----------------------------|-----------------------------------|--|--|--|
| Operating temperature range | [Including self-temperature rise] | | | |
| Storage temperature range | -40 to +125°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: 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 | 32 | Т | R10 | M | PF | R |
|------|-----|-----|-----|-----|-----|-----|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |

- (1) Series name
- (2) Dimensions

| 32 | 3.2×2.5×2.2mm(L×W×T) |
|----|----------------------|
| | |

(3) Packaging style

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

(4) Inductance

| R10 | 0.1μΗ |
|-----|-------|
| 1R0 | 1µH |
| 100 | 10μΗ |

(5) Inductance tolerance

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

(6) Lead-free compatible product

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

(7) TDK internal code

[•] All specifications are subject to change without notice.



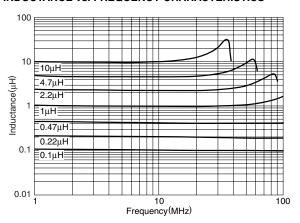
SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



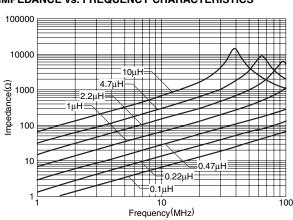
ELECTRICAL CHARACTERISTICS

| Inductance (µH) | Inductance tolerance | Q ref. | Test frequency L,Q (MHz) | Self-resonant frequency (MHz)min. | DC resistance $(\Omega)\pm20\%$ | Rated current (mA)max. | Part No. |
|--------------------|-------------------------|-----------|--------------------------|---|---------------------------------|------------------------|------------------|
| 0.1 | ±20% | 10 | 25.2 | 800 | 0.02 | 2850 | NLCV32T-R10M-PFR |
| 0.15 | ±20% | 10 | 25.2 | 500 | 0.024 | 2600 | NLCV32T-R15M-PFR |
| 0.22 | ±20% | 10 | 25.2 | 400 | 0.027 | 2400 | NLCV32T-R22M-PFR |
| 0.33 | ±20% | 10 | 25.2 | 300 | 0.035 | 2100 | NLCV32T-R33M-PFR |
| 0.47 | ±20% | 10 | 25.2 | 250 | 0.038 | 2000 | NLCV32T-R47M-PFR |
| 0.68 | ±20% | 10 | 25.2 | 180 | 0.045 | 1900 | NLCV32T-R68M-PFR |
| 1 | ±20% | 15 | 7.96 | 100 | 0.055 | 1700 | NLCV32T-1R0M-PFR |
| 1.5 | ±20% | 15 | 7.96 | 80 | 0.095 | 1400 | NLCV32T-1R5M-PFR |
| 2.2 | ±20% | 15 | 7.96 | 68 | 0.115 | 1200 | NLCV32T-2R2M-PFR |
| 3.3 | ±20% | 15 | 7.96 | 54 | 0.16 | 1000 | NLCV32T-3R3M-PFR |
| 4.7 | ±20% | 15 | 7.96 | 46 | 0.2 | 900 | NLCV32T-4R7M-PFR |
| 6.8 | ±20% | 15 | 7.96 | 38 | 0.29 | 700 | NLCV32T-6R8M-PFR |
| 10 | ±10% | 20 | 2.52 | 30 | 0.42 | 600 | NLCV32T-100K-PFR |

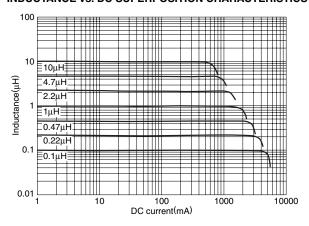
TYPICAL ELECTRICAL CHARACTERISTICS INDUCTANCE vs. FREQUENCY CHARACTERISTICS



IMPEDANCE vs. FREQUENCY CHARACTERISTICS



INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS



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