

# Inductors

## For Power Line SMD

## NLC Series NLC4532 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

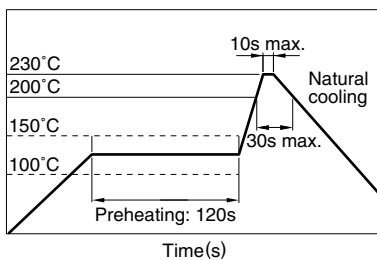
Portable telephones, personal computers, hard disk drives, and other electronic equipment.

### SPECIFICATIONS

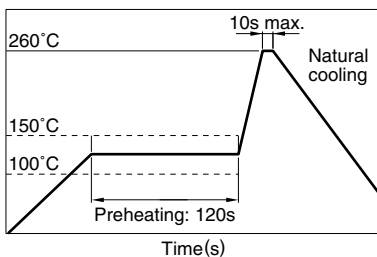
Operating temperature range	-40 to +85°C
Storage temperature range	-40 to +85°C [Unit of products]

### RECOMMENDED SOLDERING CONDITIONS

#### REFLOW SOLDERING



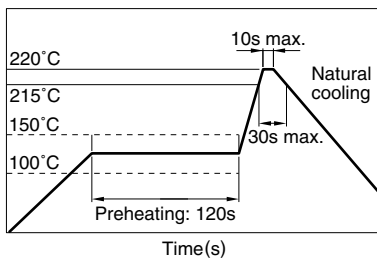
#### FLOW SOLDERING



#### 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	453232	T-	2R2	M
(1)	(2)	(3)	(4)	(5)

(1) Series name

(2) Dimensions L×W×T

453232	4.5×3.2×3.2mm
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(3) Packaging style

T	Taping(reel)
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(4) Inductance value

1R0	1μH
330	33μH

(5) Inductance tolerance

K	±10%
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### PACKAGING STYLE AND QUANTITIES

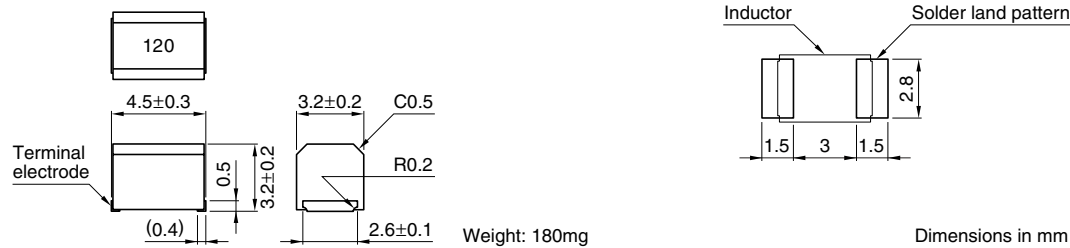
Packaging style	Quantity
Taping	500 pieces/reel

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SMD

### 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)max.	Rated current (mA)max.	Part No.
1	±10%	10	7.96	200	0.11	1050	NLC453232T-1R0K
1.2	±10%	10	7.96	160	0.12	1000	NLC453232T-1R2K
1.5	±10%	10	7.96	130	0.15	950	NLC453232T-1R5K
1.8	±10%	10	7.96	100	0.16	900	NLC453232T-1R8K
2.2	±10%	10	7.96	80	0.18	850	NLC453232T-2R2K
2.7	±10%	10	7.96	60	0.2	800	NLC453232T-2R7K
3.3	±10%	10	7.96	45	0.22	750	NLC453232T-3R3K
3.9	±10%	10	7.96	40	0.24	700	NLC453232T-3R9K
4.7	±10%	10	7.96	35	0.27	650	NLC453232T-4R7K
5.6	±10%	10	7.96	30	0.3	650	NLC453232T-5R6K
6.8	±10%	10	7.96	28	0.35	600	NLC453232T-6R8K
8.2	±10%	10	7.96	25	0.4	600	NLC453232T-8R2K
10	±10%	10	2.52	22	0.5	550	NLC453232T-100K
12	±10%	10	2.52	21	0.6	500	NLC453232T-120K
15	±10%	10	2.52	20	0.7	450	NLC453232T-150K
18	±10%	10	2.52	19	0.8	400	NLC453232T-180K
22	±10%	10	2.52	18	0.9	370	NLC453232T-220K
27	±10%	10	2.52	16	1.2	330	NLC453232T-270K
33	±10%	10	2.52	14	1.4	300	NLC453232T-330K
39	±10%	10	2.52	12	1.6	280	NLC453232T-390K
47	±10%	10	2.52	11.5	1.9	260	NLC453232T-470K
56	±10%	10	2.52	11	2.2	240	NLC453232T-560K
68	±10%	10	2.52	10	2.6	220	NLC453232T-680K
82	±10%	10	2.52	9	3.5	200	NLC453232T-820K
100	±10%	20	0.796	8	4	180	NLC453232T-101K
120	±10%	20	0.796	7.5	4.5	160	NLC453232T-121K
150	±10%	20	0.796	7	6.5	140	NLC453232T-151K
180	±10%	20	0.796	6.5	7.5	120	NLC453232T-181K
220	±10%	20	0.796	5.5	9	120	NLC453232T-221K
270	±10%	20	0.796	5	11	100	NLC453232T-271K
330	±10%	20	0.796	4	13	90	NLC453232T-331K

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

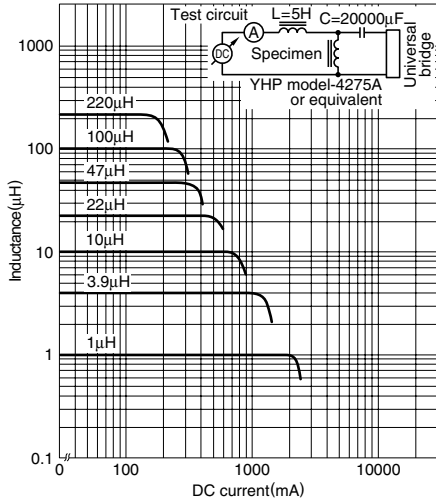
- Marking: Inductance tolerance is omitted to distinguish NL series.

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## TYPICAL ELECTRICAL CHARACTERISTICS INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



## IMPEDANCE vs. FREQUENCY CHARACTERISTICS

