

Inductors

For General Applications

SMD

NLV Series NLV32 Type

FEATURES

- The product has good heat durability that withstands lead-free compatible reflow soldering conditions.
- Lead-free material is used for the plating on the terminal.
- The electrical characteristics, reliability, shape and pad shape are the same as the previous NL series.
- The product uses metal terminals, which realize excellent connection reliability.
- Highly heat resistant thermoplastic resin is used to form the exterior package.
- From 0.01 μ H to 470 μ H, all of the products in the E-12 series are J(\pm 5%) tolerance products.
- This product conforms to the RoHS standard.

APPLICATIONS

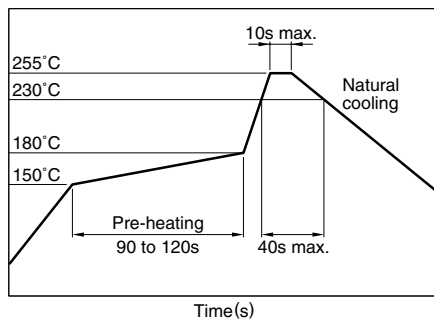
PCs, hard disk drives, and other types of electronics

SPECIFICATIONS

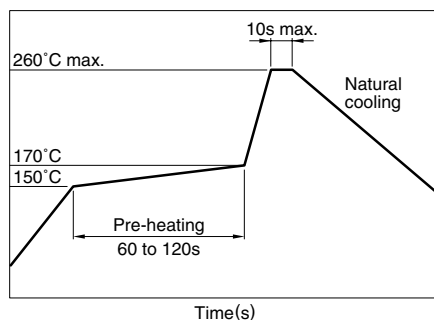
Operating temperature range	-40 to +85°C
Storage temperature range	-40 to +85°C [Unit of products]

RECOMMENDED SOLDERING CONDITIONS

REFLOW SOLDERING



FLOW SOLDERING



IRON SOLDERING

Tip temperature	300 to 350°C
Heating time	3 sec/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

NLV 32 T- 2R2 J - PF
(1) (2) (3) (4) (5) (6)

(1) Series name

(2) Dimensions LxWxT

32	3.2x2.5x2.2mm
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(3) Packaging style

T	Taping (reel)
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(4) Inductance value

1R0	1 μ H
220	22 μ H

(5) Inductance tolerance

J	\pm 5%
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(6) Lead-free compatible product

PF	Lead-free compatible product
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PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	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	Please select the solvent of this product avoiding a strong acid and a strong alkali, and considering the environments.
Time	2min max.

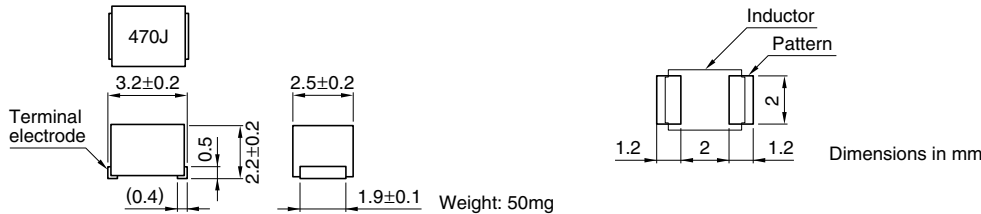
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SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



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.
0.01	±5%	15	100	2500	0.13	450	NLV32T-010J-PF
0.012	±5%	17	100	2300	0.14	450	NLV32T-012J-PF
0.015	±5%	19	100	2100	0.16	450	NLV32T-015J-PF
0.018	±5%	21	100	1900	0.18	450	NLV32T-018J-PF
0.022	±5%	23	100	1700	0.2	450	NLV32T-022J-PF
0.027	±5%	23	100	1500	0.22	450	NLV32T-027J-PF
0.033	±5%	25	100	1400	0.24	450	NLV32T-033J-PF
0.039	±5%	25	100	1300	0.27	450	NLV32T-039J-PF
0.047	±5%	26	100	1200	0.3	450	NLV32T-047J-PF
0.056	±5%	26	100	1100	0.33	450	NLV32T-056J-PF
0.068	±5%	27	100	1000	0.36	450	NLV32T-068J-PF
0.082	±5%	27	100	900	0.4	450	NLV32T-082J-PF
0.1	±5%	28	100	700	0.44	450	NLV32T-R10J-PF
0.12	±5%	30	25.2	500	0.22	450	NLV32T-R12J-PF
0.15	±5%	30	25.2	450	0.25	450	NLV32T-R15J-PF
0.18	±5%	30	25.2	400	0.28	450	NLV32T-R18J-PF
0.22	±5%	30	25.2	350	0.32	450	NLV32T-R22J-PF
0.27	±5%	30	25.2	320	0.36	450	NLV32T-R27J-PF
0.33	±5%	30	25.2	300	0.4	450	NLV32T-R33J-PF
0.39	±5%	30	25.2	250	0.45	450	NLV32T-R39J-PF
0.47	±5%	30	25.2	220	0.5	450	NLV32T-R47J-PF
0.56	±5%	30	25.2	180	0.55	450	NLV32T-R56J-PF
0.68	±5%	30	25.2	160	0.6	450	NLV32T-R68J-PF
0.82	±5%	30	25.2	140	0.65	450	NLV32T-R82J-PF
1	±5%	30	7.96	120	0.7	400	NLV32T-1R0J-PF
1.2	±5%	30	7.96	100	0.75	390	NLV32T-1R2J-PF
1.5	±5%	30	7.96	85	0.85	370	NLV32T-1R5J-PF
1.8	±5%	30	7.96	80	0.9	350	NLV32T-1R8J-PF
2.2	±5%	30	7.96	75	1	320	NLV32T-2R2J-PF
2.7	±5%	30	7.96	70	1.1	290	NLV32T-2R7J-PF
3.3	±5%	30	7.96	60	1.2	260	NLV32T-3R3J-PF
3.9	±5%	30	7.96	55	1.3	250	NLV32T-3R9J-PF
4.7	±5%	30	7.96	50	1.5	220	NLV32T-4R7J-PF
5.6	±5%	30	7.96	45	1.6	200	NLV32T-5R6J-PF
6.8	±5%	30	7.96	40	1.8	180	NLV32T-6R8J-PF
8.2	±5%	30	7.96	35	2	170	NLV32T-8R2J-PF
10	±5%	30	2.52	30	2.1	150	NLV32T-100J-PF
12	±5%	30	2.52	20	2.5	140	NLV32T-120J-PF

- Test equipment L, Q: YHP4191A IMPEDANCE ANALYZER (16092A) [$L \leq 0.1\mu\text{H}$]
YHP4194A IMPEDANCE ANALYZER (16085A+16093B+TDK TF-1) [$L \geq 0.12\mu\text{H}$]
SRF:HP8753C NETWORK ANALYZER
Rdc:MATSUSHITA VP-2941A DIGITAL MILLIOHM METER

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Inductance(μ H)	Inductance tolerance	Q min.	Test frequency L,Q (MHz)	Self-resonant frequency (MHz)min.	DC resistance (Ω)max.	Rated current (mA)max.	Part No.
15	$\pm 5\%$	30	2.52	20	2.8	130	NLV32T-150J-PF
18	$\pm 5\%$	30	2.52	20	3.3	120	NLV32T-180J-PF
22	$\pm 5\%$	30	2.52	20	3.7	110	NLV32T-220J-PF
27	$\pm 5\%$	30	2.52	20	5	80	NLV32T-270J-PF
33	$\pm 5\%$	30	2.52	17	5.6	70	NLV32T-330J-PF
39	$\pm 5\%$	30	2.52	16	6.4	65	NLV32T-390J-PF
47	$\pm 5\%$	30	2.52	15	7	60	NLV32T-470J-PF
56	$\pm 5\%$	30	2.52	13	8	55	NLV32T-560J-PF
68	$\pm 5\%$	30	2.52	12	9	50	NLV32T-680J-PF
82	$\pm 5\%$	30	2.52	11	10	45	NLV32T-820J-PF
100	$\pm 5\%$	20	0.796	10	10	40	NLV32T-101J-PF
120	$\pm 5\%$	20	0.796	10	11	70	NLV32T-121J-PF
150	$\pm 5\%$	20	0.796	8	15	65	NLV32T-151J-PF
180	$\pm 5\%$	20	0.796	7	17	60	NLV32T-181J-PF
220	$\pm 5\%$	20	0.796	7	21	50	NLV32T-221J-PF
270	$\pm 5\%$	20	0.796	6	28	45	NLV32T-271J-PF
330	$\pm 5\%$	20	0.796	5	34	40	NLV32T-331J-PF
390	$\pm 5\%$	20	0.796	5	36	35	NLV32T-391J-PF
470	$\pm 5\%$	20	0.796	4	40	25	NLV32T-471J-PF

- Test equipment L, Q: YHP4194A IMPEDANCE ANALYZER (16085A+16093B+TDK TF-1)
SRF: HP8753C NETWORK ANALYZER
Rdc: MATSUSHITA VP-2941A DIGITAL MILLIOHM METER