

## NL(C)V Series

### SMD Inductor for Power/Signal Line

#### FEATURES

- Highly reliable and adaptable to reflow soldering, soldering iron or wave soldering.
- Strong structure and highly accurate dimensions.
- Highly resistant to mechanical and environmental shock.
- NL-series is characteristic with high Q.
- NLC-series offers good IDC for power application.



#### APPLICATIONS

- DC power supply circuit for Pagers, Cordless phones, Hi-Frequency Communication Products, PCs, Disk Drives and computer peripherals, Digital Cameras and other electronic equipments.

#### PRODUCT IDENTIFICATION

NL(C)V 453232 - 100 M - T

(1) (2) (3) (4) (5)

(1) Product name

Type: None (ordinary), C (for power)

(3) Shapes and Dimensions (LxWxT)

453232 : 4.5 x 3.2 x 3.2 mm

(4) Inductance

R47 : 0.47uH ; 100 : 10uH

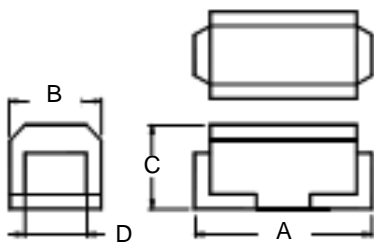
(5) Tolerance

J : ±5% ; K : ±10% ; M : ±20%

(6) Taping style

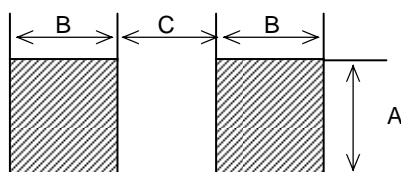
T : Taping ; None : Bulk

#### SHAPES AND DIMENSIONS (mm)



Item	A	B	C	D
NLV322522	3.2 ± 0.2	2.5 ± 0.2	2.2 ± 0.2	1.9
NLCV322522	3.2 ± 0.2	2.5 ± 0.2	2.2 ± 0.2	1.9
NLV453232	4.5 ± 0.3	3.2 ± 0.2	3.2 ± 0.2	2.6
NLCV453232	4.5 ± 0.3	3.2 ± 0.2	3.2 ± 0.2	2.6

#### RECOMMENDED FOOTPRINT (mm)



Item	A	B	C
NLV322522	2.0	1.0	2.0
NLCV322522	2.0	1.0	2.0
NLV453232	2.8	1.5	3.0
NLCV453232	2.8	1.5	3.0

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#### ELECTRICAL CHARACTERISTICS

##### NLV322522

EMTEK Part Number	Inductance (uH)	Q min.	Test Freq. (MHz)	SRF (MHz) min.	DCR (Ω) Max.	Idc (mA) Max.
NLV322522-R010M-T	0.01	15	100	2500	0.13	450
NLV322522-R015M-T	0.015	19	100	2100	0.16	450
NLV322522-R022M-T	0.022	23	100	1900	0.2	450
NLV322522-R033M-T	0.033	25	100	1400	0.24	450
NLV322522-R047M-T	0.047	26	100	1200	0.3	450
NLV322522-R068M-T	0.068	27	100	1000	0.36	450
NLV322522-R10M-T	0.1	28	100	700	0.44	450
NLV322522-R12M-T	0.12	30	25.2	500	0.22	450
NLV322522-R15M-T	0.15	30	25.2	450	0.25	450
NLV322522-R18M-T	0.18	30	25.2	400	0.28	450
NLV322522-R22M-T	0.22	30	25.2	350	0.32	450
NLV322522-R27M-T	0.27	30	25.2	320	0.36	450
NLV322522-R33M-T	0.33	30	25.2	300	0.4	450
NLV322522-R39M-T	0.39	30	25.2	250	0.45	450
NLV322522-R47M-T	0.47	30	25.2	220	0.5	450
NLV322522-R56M-T	0.56	30	25.2	180	0.55	450
NLV322522-R68M-T	0.68	30	25.2	160	0.6	450
NLV322522-R82M-T	0.82	30	25.2	140	0.65	450
NLV322522-1R0K-T	1	30	7.96	120	0.7	400
NLV322522-1R2K-T	1.2	30	7.96	100	0.75	390
NLV322522-1R5K-T	1.5	30	7.96	85	0.85	370
NLV322522-1R8K-T	1.8	30	7.96	80	0.9	350
NLV322522-2R2K-T	2.2	30	7.96	75	1	320
NLV322522-2R7K-T	2.7	30	7.96	70	1.1	290
NLV322522-3R3K-T	3.3	30	7.96	60	1.2	260
NLV322522-3R9K-T	3.9	30	7.96	55	1.3	250
NLV322522-4R7K-T	4.7	30	7.96	50	1.5	220
NLV322522-5R6K-T	5.6	30	7.96	45	1.6	200
NLV322522-6R8K-T	6.8	30	7.96	40	1.8	180
NLV322522-8R2K-T	8.2	30	7.96	35	2	170
NLV322522-100K-T	10	30	2.52	30	2.1	150
NLV322522-120K-T	12	30	2.52	20	2.5	140
NLV322522-150K-T	15	30	2.52	20	2.8	130
NLV322522-180K-T	18	30	2.52	20	3.3	120
NLV322522-220K-T	22	30	2.52	20	3.7	110
NLV322522-270K-T	27	30	2.52	20	5	80
NLV322522-330K-T	33	30	2.52	17	5.6	70
NLV322522-390K-T	39	30	2.52	16	6.4	65
NLV322522-470K-T	47	30	2.52	15	7	60
NLV322522-560K-T	56	30	2.52	13	8	55
NLV322522-680K-T	68	30	2.52	12	9	50
NLV322522-820K-T	82	30	2.52	11	10	45
NLV322522-101K-T	100	20	0.796	10	10	40
NLV322522-121K-T	120	20	0.796	10	11	70
NLV322522-151K-T	150	20	0.796	8	15	65
NLV322522-181K-T	180	20	0.796	7	17	60
NLV322522-221K-T	220	20	0.796	7	21	50

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#### ELECTRICAL CHARACTERISTICS

##### NLCV322522

EMTEK Part Number	Inductance (uH)	Q min.	Test Freq. (MHz)	SRF (MHz) min.	DCR (Ω) Max.	Idc (mA) Max.
NLCV322522-1R0K-T	1.0	10	7.96	100	0.10	850
NLCV322522-1R5K-T	1.5	10	7.96	80	0.14	700
NLCV322522-2R2K-T	2.2	10	7.96	68	0.17	600
NLCV322522-3R3K-T	3.3	10	7.96	54	0.21	500
NLCV322522-4R7K-T	4.7	15	7.96	46	0.26	430
NLCV322522-6R8K-T	6.8	15	7.96	38	0.35	360
NLCV322522-100K-T	10	15	2.52	30	0.47	300
NLCV322522-150K-T	15	15	2.52	26	0.73	250
NLCV322522-220K-T	22	15	2.52	21	1.00	210
NLCV322522-330K-T	33	15	2.52	17	1.43	170
NLCV322522-470K-T	47	15	2.52	14	2.1	150
NLCV322522-680K-T	68	15	2.52	12	3.6	120
NLCV322522-101K-T	100	15	0.796	10	4.8	100
NLCV322522-151K-T	151	20	0.796	8	7.9	85
NLCV322522-221K-T	220	20	0.796	7	10.9	70
NLCV322522-331K-T	330	20	0.796	6	16.0	60
NLCV322522-471K-T	470	20	0.796	4	28.6	45
NLCV322522-681K-T	680	20	0.796	3	36.4	35

## NL(C)V Series

### SMD Inductor for Power/Signal Line

#### ELECTRICAL CHARACTERISTICS

##### NLV453232

EMTEK Part Number	Inductance (uH)	Q min.	Test Freq. (MHz)	SRF (MHz) min.	DCR (Ω) Max.	Idc (mA) Max.
NLV453232-R10M-T	0.1	35	25.2	300	0.18	800
NLV453232-R12M-T	0.12	35	25.2	280	0.20	770
NLV453232-R15M-T	0.15	35	25.2	250	0.22	730
NLV453232-R18M-T	0.18	35	25.2	220	0.24	700
NLV453232-R22M-T	0.22	40	25.2	200	0.25	665
NLV453232-R27M-T	0.27	40	25.2	180	0.26	635
NLV453232-R33M-T	0.33	40	25.2	165	0.28	605
NLV453232-R39M-T	0.39	40	25.2	150	0.30	575
NLV453232-R47M-T	0.47	40	25.2	145	0.32	545
NLV453232-R56M-T	0.56	40	25.2	140	0.36	520
NLV453232-R68M-T	0.68	40	25.2	135	0.40	500
NLV453232-R82M-T	0.82	40	25.2	130	0.45	475
NLV453232-1R0K-T	1	50	7.96	100	0.50	450
NLV453232-1R2K-T	1.2	50	7.96	80	0.55	430
NLV453232-1R5K-T	1.5	50	7.96	70	0.60	410
NLV453232-1R8K-T	1.8	50	7.96	60	0.65	390
NLV453232-2R2K-T	2.2	50	7.96	55	0.70	380
NLV453232-2R7K-T	2.7	50	7.96	50	0.75	370
NLV453232-3R3K-T	3.3	50	7.96	45	0.80	355
NLV453232-3R9K-T	3.9	50	7.96	40	0.90	330
NLV53232-4R7K-T	4.7	50	7.96	35	1.0	315
NLV453232-5R6K-T	5.6	50	7.96	33	1.1	300
NLV453232-6R8K-T	6.8	50	7.96	27	1.2	285
NLV453232-8R2K-T	8.2	50	7.96	23	1.4	270
NLV453232-100K-T	10	50	2.52	20	1.5	250
NLV453232-120K-T	12	50	2.52	18	2.0	225
NLV453232-150K-T	15	50	2.52	17	2.5	200
NLV453232-180K-T	18	50	2.52	15	2.8	190
NLV453232-220K-T	22	50	2.52	13	3.2	180
NLV453232-270K-T	27	50	2.52	12	3.6	170
NLV453232-330K-T	33	50	2.52	11	4.0	160
NLV453232-390K-T	39	50	2.52	10	4.5	150
NLV453232-470K-T	47	50	2.52	10	5.0	140
NLV453232-560K-T	56	50	2.52	9.0	5.5	135
NLV453232-680K-T	68	50	2.52	9.0	6.0	130
NLV453232-820K-T	82	50	2.52	8.0	7.0	120
NLV453232-101K-T	100	40	0.796	8.0	8.0	110
NLV453232-121K-T	120	40	0.796	6.0	8.0	110
NLV453232-151K-T	150	40	0.796	5.0	9.0	105
NLV53232-181K-T	180	40	0.796	5.0	9.5	105
NLV453232-221K-T	220	40	0.796	4.0	10	100
NLV453232-271K-T	270	40	0.796	4.0	12	92
NLV453232-331K-T	330	40	0.796	3.5	14	85
NLV453232-391K-T	390	40	0.796	3.0	16	80
NLV453232-471K-T	470	40	0.796	3.0	26	62
NLV453232-561K-T	560	30	0.796	3.0	30	50
NLV453232-681K-T	680	30	0.796	3.0	30	50
NLV453232-821K-T	820	30	0.796	2.5	35	30
NLV453232-102K-T	1000	20	0.252	2.5	40	30

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##### NLCV453232

EMTEK Part Number	Inductance (uH)	Q min.	Test Freq. (MHz)	SRF (MHz) min.	DCR (Ω) Max.	Idc (mA) Max.
NLCV453232-1R0K-T	1.0	10	7.96	100	0.11	1050
NLCV453232-1R2K-T	1.2	10	7.96	100	0.12	1000
NLCV453232-1R5K-T	1.5	10	7.96	100	0.15	950
NLCV453232-1R8K-T	1.8	10	7.96	100	0.16	900
NLCV453232-2R2K-T	2.2	10	7.96	80	0.18	850
NLCV453232-2R7K-T	2.7	10	7.96	60	0.20	800
NLCV453232-3R3K-T	3.3	10	7.96	45	0.22	750
NLCV453232-3R9K-T	3.9	10	7.96	40	0.24	700
NLCV453232-4R7K-T	4.7	10	7.96	35	0.27	650
NLCV453232-5R6K-T	5.6	10	7.96	30	0.30	650
NLCV453232-6R8K-T	6.8	10	7.96	28	0.35	600
NLCV453232-8R2K-T	8.2	10	7.96	25	0.4	600
NLCV453232-100K-T	10	10	2.52	22	0.5	550
NLCV453232-120K-T	12	10	2.52	21	0.6	500
NLCV453232-150K-T	15	10	2.52	20	0.7	450
NLCV453232-180K-T	18	10	2.52	19	0.8	400
NLCV453232-220K-T	22	10	2.52	18	0.9	370
NLCV453232-270K-T	27	10	2.52	16	1.2	330
NLCV453232-330K-T	33	10	2.52	14	1.4	300
NLCV453232-390K-T	39	10	2.52	12	1.6	280
NLCV453232-470K-T	47	10	2.52	11.5	1.9	260
NLCV453232-560K-T	56	10	2.52	11.0	2.2	240
NLCV453232-680K-T	68	10	2.52	10.0	2.6	220
NLCV453232-820K-T	82	10	2.52	9.0	3.5	200
NLCV453232-101K-T	100	20	0.796	8.0	4.0	180
NLCV453232-121K-T	120	20	0.796	7.5	4.5	160
NLCV453232-151K-T	150	20	0.796	7.0	6.5	140
NLCV453232-181K-T	180	20	0.796	6.5	7.5	120
NLCV453232-221K-T	220	20	0.796	5.5	9.0	120
NLCV453232-271K-T	270	20	0.796	5.0	11.0	100
NLCV453232-331K-T	330	20	0.796	4.0	13.0	90

\* All specification are subject to change without notice. Please contact our sales representatives for details.

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#### TEST EQUIPMENT :

- L & Q : HP 4284A (Test Freq.  $\leq$  1MHz), HP 4287( Test Freq.  $>$  1MHz) Precision LCR METER, or equivalent
- SRF : Agilent E4991A RF Impedance Analyzer
- RDC : MILLI OHM METER 16502 , or equivalent
- Electrical specification at 25°C

#### SPECIFICATIONS

- Operating Temperature : - 40 °C ~ + 85 °C
- Rated Current : Based on the temperature rise not exceeding 20° and inductance is 90% lower than its normal value.

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