

MOLDED TYPE WIRE WOUND CHIP INDUCTOR

(NLCV - Series)

NLCV Series

The characteristics of NLCV series (molded type) features low RDC and high current handling capacities. These chip inductors are ideal for power supply applications such as PC, conveyable telephone, and so on.



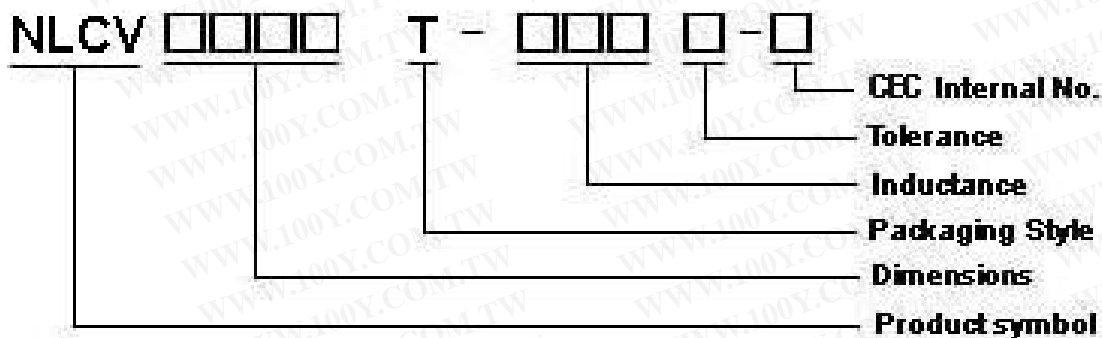
Feature

- Low RDC, large current type
- Best for power supply line.
- Available in 2 sizes.

Applications

- Portable Telephones
- Personal computers
- HDDs.
- Other electronics appliances.

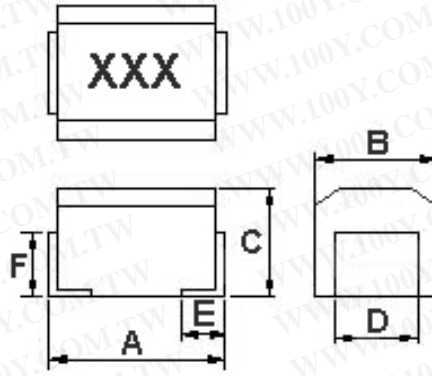
Product Identification



- Packaging Style: T: Tape and Reel; B: Bulk
- Tolerance: J=±5%;K=±10%
- Note: lead-free products

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
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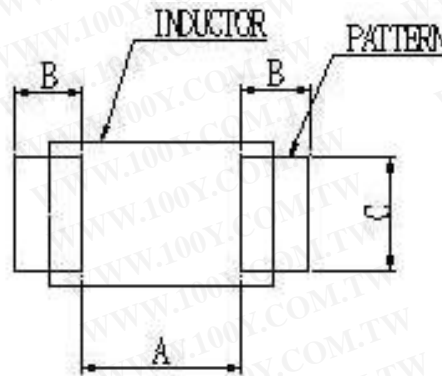
Shapes and Dimensions



Unit: mm

TYPE	A	B	C	D	E	F
NLCV 453232	4.5±0.2	3.2±0.2	3.2±0.2	2.6±0.1	0.8 ref	0.25 ref

Recommended Pattern



Unit: mm

TYPE	A	B	C
NLC 453232	3.0	1.5	2.8

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SMD Wire Wound Ferrite Chip Inductors – NLCV453232 Series

Electrical Characteristics

Part Number	Inductance (mH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	Self Resonant Frequency (MHz) Min	DC Resistance () Max	IDC (mA)
NLCV453232T-1R0?-N	1.0	10/ 5	10	7.96	200	0.11	1050
NLCV453232T-1R2?-N	1.2	10/ 5	10	7.96	160	0.12	1000
NLCV453232T-1R5?-N	1.5	10/ 5	10	7.96	130	0.15	950
NLCV453232T-1R8?-N	1.8	10/ 5	10	7.96	100	0.16	900
NLCV453232T-2R2?-N	2.2	10/ 5	10	7.96	80	0.18	850
NLCV453232T-2R7?-N	2.7	10/ 5	10	7.96	60	0.20	800
NLCV453232T-3R3?-N	3.3	10/ 5	10	7.96	45	0.22	750
NLCV453232T-3R9?-N	3.9	10/ 5	10	7.96	40	0.24	700
NLCV453232T-4R7?-N	4.7	10/ 5	10	7.96	35	0.27	650
NLCV53232T-5R6?-N	5.6	10/ 5	10	7.96	30	0.30	650
NLCV453232T-6R8?-N	6.8	10/ 5	10	7.96	28	0.35	600
NLCV453232T-8R2?-N	8.2	10/ 5	10	7.96	25	0.40	600
NLCV453232T-100?-N	10	10/ 5	10	2.52	22	0.50	550
NLCV453232T-120?-N	12	10/ 5	10	2.52	21	0.60	500
NLCV453232T-150?-N	15	10/ 5	10	2.52	20	0.70	450
NLCV453232T-180?-N	18	10/ 5	10	2.52	19	0.80	400
NLCV453232T-220?-N	22	10/ 5	10	2.52	18	0.90	370
NLCV453232T-270?-N	27	10/ 5	10	2.52	16	1.20	330
NLCV453232T-330?-N	33	10/ 5	10	2.52	14	1.40	300
NLCV453232T-390?-N	39	10/ 5	10	2.52	12	1.60	280
NLCV453232T-470?-N	47	10/ 5	10	2.52	11.5	1.90	260
NLCV453232T-560?-N	56	10/ 5	10	2.52	11.0	2.20	240
NLCV453232T-680?-N	68	10/ 5	10	2.52	10.0	2.60	220
NLCV453232T-820?-N	82	10/ 5	10	2.52	9.0	3.50	200
NLCV453232T-101?-N	100	10/ 5	20	0.796	8.	4.00	180
NLCV453232T-121?-N	120	10/ 5	20	0.796	7.5	4.50	160
NLCV453232T-151?-N	150	10/ 5	20	0.796	7.0	6.50	140
NLCV453232T-181?-N	180	10/ 5	20	0.796	6.5	7.50	120
NLCV453232T-221?-N	220	10/ 5	20	0.796	5.5	9.00	120
NLCV453232T-271?-N	270	10/ 5	20	0.796	5.0	11.0	100
NLCV453232T-331?-N	330	10/ 5	20	0.796	4.0	13.0	90

- L、Q :HP4285A
- SRF : HP4291A
- RDC : CH502BC
- IDC : HO4284A+HP42841A
- Tolerance : J = ±5% / K = ±10%

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Reliability Test - NLCV453232 Series

SMD Multilayer Ferrite Chip Inductors

NLCV453232

1-1.Mechanical Performances

No	Item	Specification	Test Method
1-1-1	Vibration	Appearance: No damage Inductance: within $\pm 0\%$ of initial value Q change: within $\pm 0\%$ of initial value	Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55 to 10Hz for 1min Amplitude: 1.5mm Time: 2hrs for each axis (X, Y & Z), total 6hrs
1-1-2	Solder ability	The electrodes shall be at least 90% covered with new solder coating	Pre-heating: 150 , 1min Solder Composition: Sn/Ag3.0/Cu0.5 Solder Temperature: 245 \pm Immersion Time: 4 \pm sec

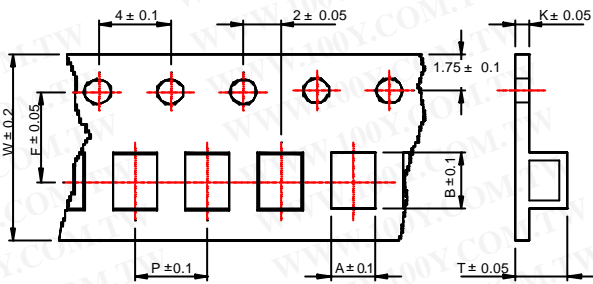
1-2.Environmental Performances

No	Item	Specification	Test Method															
1-2-1	Temperature Cycle	Appearance: No damage Inductance: within $\pm 0\%$ of initial value Q change: within $\pm 0\%$ of initial value	One cycle: <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature ()</th> <th>Time (min)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-25 \pm</td> <td>30</td> </tr> <tr> <td>2</td> <td>25 \pm</td> <td>3</td> </tr> <tr> <td>3</td> <td>85 \pm</td> <td>30</td> </tr> <tr> <td>4</td> <td>25 \pm</td> <td>3</td> </tr> </tbody> </table> Total: 100cycles Measured after exposure in the room condition for 24hrs	Step	Temperature ()	Time (min)	1	-25 \pm	30	2	25 \pm	3	3	85 \pm	30	4	25 \pm	3
Step	Temperature ()	Time (min)																
1	-25 \pm	30																
2	25 \pm	3																
3	85 \pm	30																
4	25 \pm	3																
1-2-2	Humidity Resistance		Temperature: 40 \pm Relative Humidity: 90 ~ 95% Time: 1000hrs Measured after exposure in the room condition for 24hrs															
1-2-3	High Temperature Resistance		Temperature: 85 \pm Relative Humidity: 20% Applied Current: Rated Current Time: 1000hrs Measured after exposure in the room condition for 24hrs															
1-2-4	Low Temperature Resistance		Temperature: -25 \pm Relative Humidity: 0% Time: 1000hrs Measured after exposure in the room condition for 24hrs															

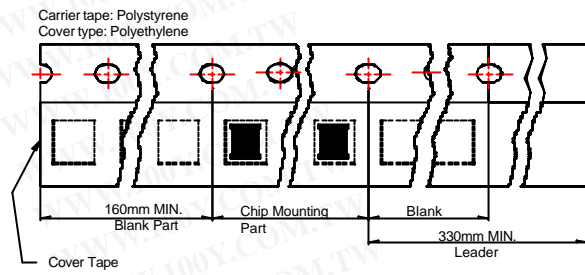
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Packaging Specification

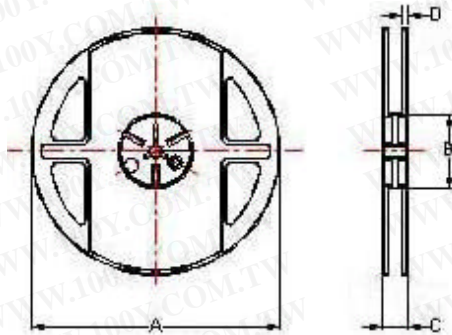
Tape Dimensions



Tape Material



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions								Reel Dimensions				Quantity PCS / Reel
	A	B	T	W	P	F	K	A	B	C	D		
NLCV453232	3.30	5.00	3.50	12	8	5.5	0.3	178	60	16	1.4	500	

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