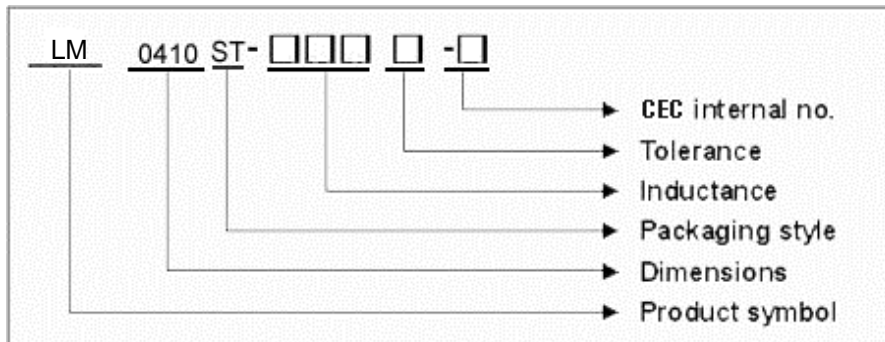


1 Scope: This Inductors applies to POWER LINE AXIAL FOR AL TYPE

2 Part Number AL0512ST-471K-N

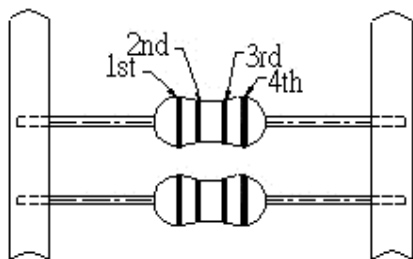


3 Rating:

Operating Temperature: $-20^{\circ}\text{C} \sim 85^{\circ}\text{C}$

Storage Temperature: Under 35°C , **Humidity < 75% RH**

4 Marking:



Ex : AL0410ST-120K-S

Marking : 1 st → Brown

2 nd → Red

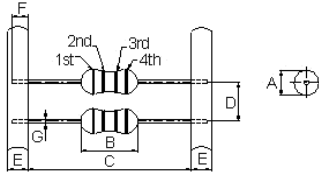
3 rd → Black

4 th → Silver

5 Standard Testing Condition

	Unless otherwise specified	In case of doubt
Temperature	Ordinary Temperature(15 to 35°C)	20±2°C
Humidity	Ordinary Humidity(25 to 85% RH)	60 to 70 % RH

6 Configuration and Dimensions:



A m/m	5.0max
B m/m	12.0max
C m/m	52.0±1.0
D m/m	5.0±0.5
E m/m	6.0±1.0
F m/m	3.2min
G m/m	0.6±0.05

7 ELECTRICAL CHARACTERISTICS :

Part No.	L (uH)	Tolerance (%)	Q MIN.	Test Freq. (KHz)	SRF (MHz)Min.	RDC (Ω)Max.	IDC (A)Max.	Color Code		
								1st	2nd	3rd
LM0512ST-471K-N	470.0	10	30	1	1.5	4.0	0.15	Yellow	Violet	Brown

NOTE: □-tolerance J=±5% / K=±10% / M=±20%

- Operating temperature range - 20 °C ~ 85 °C
 - FOURTH COLOR CODE: GOLD:±5%, SILVER:±10%, BLACK:±20%
 - IDC: Value obtained when current flows and the temperature has risen to 25°C or when DC current flows and the initial value of inductance has fallen by 10%, whichever is smaller.
- "-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

8 Reliability Of Ferrite Wire Wound Power Inductor

1-1.Mechanical Performance

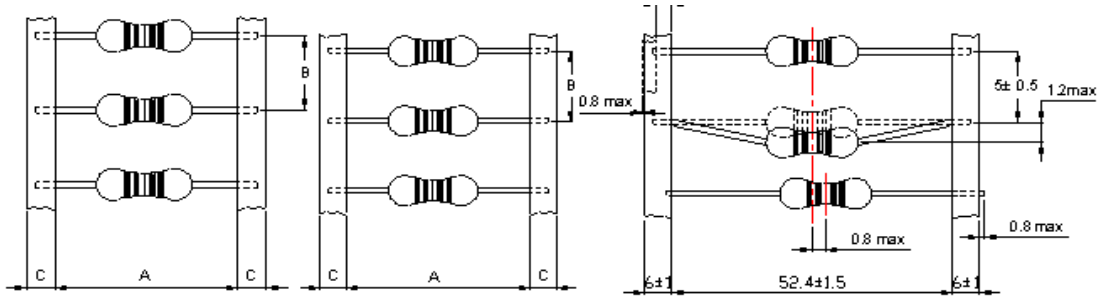
No	Item	Specification	Test Method
1-1-1	Vibration	Appearance: No damage Inductance:with in $\pm 10\%$ of initial value Q change: within $\pm 20\%$ of initial value	AL0512ST-471K-N Oscillation Frequency: 10 to 55 to 10Hz for 1min Amplitude: 1.5mm Time: 2hrs for each axis (X, Y & Z), total 6hrs

1-2.Environmental Performance

No	Item	Specification	Test Method																		
1-2-1	Temperature Cycle	Appearance: No damage Inductance:with in $\pm 10\%$ of initial value Q change: within $\pm 20\%$ of initial value	<table border="1"> <thead> <tr> <th colspan="3">One cycle:</th> </tr> <tr> <th>Step</th> <th>Temperature ($^{\circ}\text{C}$)</th> <th>Time (min)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-25 ± 3</td> <td>30</td> </tr> <tr> <td>2</td> <td>25 ± 2</td> <td>3</td> </tr> <tr> <td>3</td> <td>85 ± 3</td> <td>30</td> </tr> <tr> <td>4</td> <td>25 ± 2</td> <td>3</td> </tr> </tbody> </table> <p>Total: 100cycles Measured after exposure in the room condition for 24hrs</p>	One cycle:			Step	Temperature ($^{\circ}\text{C}$)	Time (min)	1	-25 ± 3	30	2	25 ± 2	3	3	85 ± 3	30	4	25 ± 2	3
One cycle:																					
Step	Temperature ($^{\circ}\text{C}$)	Time (min)																			
1	-25 ± 3	30																			
2	25 ± 2	3																			
3	85 ± 3	30																			
4	25 ± 2	3																			
1-2-2	Humidity Resistance		<p>Temperature: $40\pm 2^{\circ}\text{C}$ Relative Humidity: 90 ~ 95% Time: 1000hrs Measured after exposure in the room condition for 24hrs</p>																		
1-2-3	High Temperature Resistance		<p>Temperature: $85\pm 3^{\circ}\text{C}$ Relative Humidity: 0% Applied Current: Rated Current Time: 1000hrs Measured after exposure in the room condition for 24hrs</p>																		
1-2-4	Low Temperature Resistance		<p>Temperature: $-25\pm 3^{\circ}\text{C}$ Relative Humidity: 0% Time: 1000hrs Measured after exposure in the room condition for 24hrs</p>																		

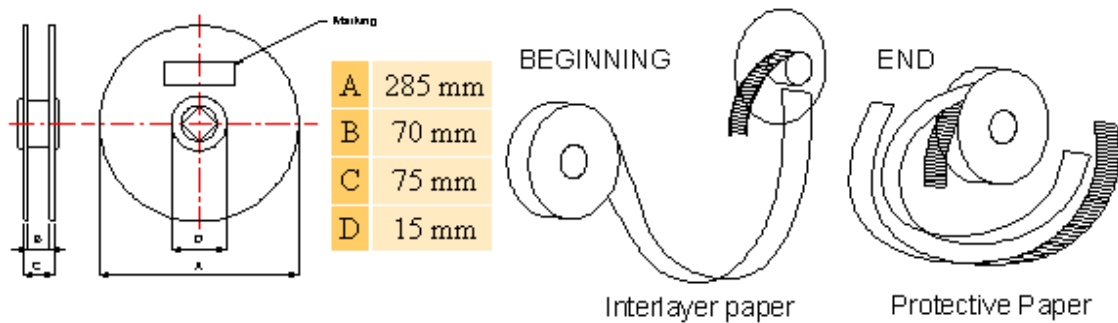
10 DIMENSION

10.1 Dimensions of Tape



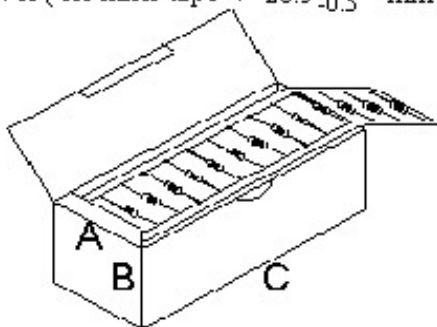
DRAWING (A)	A	26.0~27.5mm	B	5±0.5mm	C	6±1.0mm
DRAWING (B)	A	52.4±1.5mm	B	5±0.5mm	C	6±1.0mm

10.2 Dimensions of Reel

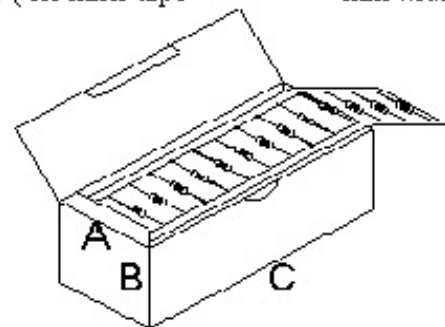


10.3 Dimensions of Ammunition Pack

-N-A (for inner tape : $26.5^{+1.0}_{-0.5}$ mm width) -N-B (for inner tape : 52.4 ± 1.5 mm width)



A	50 mm
B	70 mm
C	255 mm



A	75 mm
B	100 mm
C	255 mm

11 PACKAGING

11.1 Reel Packing

PART NO	QUANTITY PER REEL	QUANTITY CARTON
0204ST SERIES-N	5000 PCS	20000 PCS
0307ST SERIES-N	5000 PCS	20000 PCS
0410ST SERIES-N	2500 PCS	20000 PCS
0510ST SERIES-N	2500 PCS	20000 PCS

11.2 Ammunition Packing

PART NO	QUANTITY PER AMMU.	QUANTITY CARTON
0204ST-SERIES-N-A	2000 PCS	72000 PCS
0204ST-SERIES-N-B	4000 PCS	48000 PCS
0307ST-SERIES-N-A	2000 PCS	48000 PCS
0307ST-SERIES-N-B	4000 PCS	48000 PCS
0410ST-SERIES-N-A	2000 PCS	24000 PCS
0410ST-SERIES-N-B	2500 PCS	30000 PCS
0510ST-SERIES-N-A	2000 PCS	24000 PCS
0510ST-SERIES-N-B	2000 PCS	24000 PCS

11.3 In Bulks

PART NO	QUANTITY PER BAG
0204S SERIES-N	500 PCS
0307S SERIES-N	500 PCS
0410S SERIES-N	500 PCS
0510S SERIES-N	500 PCS

12 Note:

1. Please make sure that your product is has been evaluated and confirmed against your specifications when our product is mounted to your product.
2. Do not knock nor drop.
3. All the items and parameters in this product specification have been prescribed on the premise that our product is used for the purpose,under the condition and in the environment agreed upon between you and us. You are requested not to use our product deviating from such agreement.
4. Please keep the distance between transformer/coil and other components (refer to the standard IEC 950)

Shanghai Leiditech Electronic Co.,Ltd
 Email: sale1@leiditech.com
 Tel : +86- 021 50828806
 Fax : +86- 021 50477059