ISO9001 ISO14001 IATF16949 **CHILISIN ELECTRONICS CORP.**

RoHS & Halogen Free & REACH Compliance.

SPECIFICATION FOR APPROVAL

Customer：	**ELETCH**		
Customer P/N:			
Drawing No：	**A0X2000219**		
Quantity：	**0 Pcs.**	**Date：**	**2020/7/6**
Chilisin P/N：	**BPCP00121280100MAE**		

SPECIFICATION ACCEPTED BY:	
COMPONENT ENGINEER	
ELECTRICAL ENGINEER	
MECHANICAL ENGINEER	
APPROVED	
REJECTED	

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Drawn by	Checked by	Approved by
Jinju	**Marco**	**Vincent**

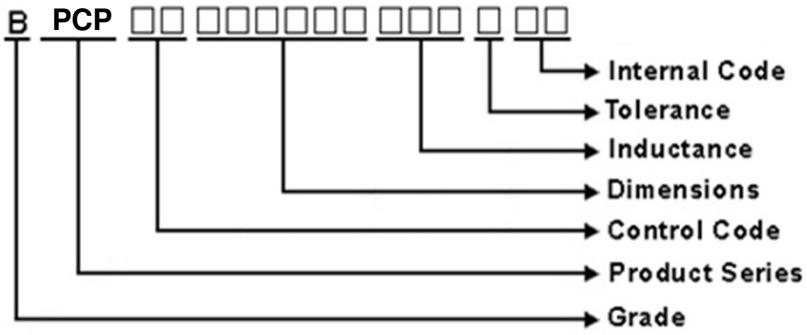
ISO9001 ISO14001 IATF16949 CHILISIN ELECTRONICS CORP.

BPCP00121280 Series Specification

1 Scope:

This specification applies to the Pb Free high current type SMD inductors

2 Part Numbering:

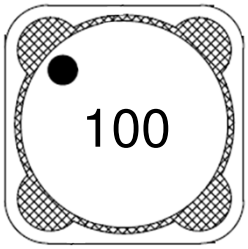


3 Rating:

Operating Temperature: －40℃ ~ 125℃(Including self - temperature rise)

Storage Temperature: －40℃ ~ 125℃

4 Marking:



Ex Marking :●100

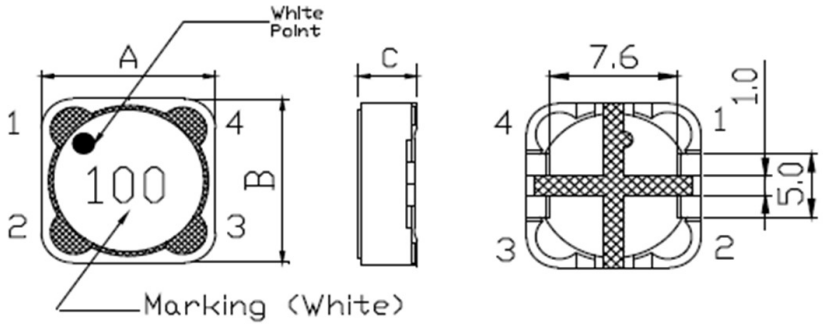
Marking color : White

5 Standard Testing Condition

	Unless otherwise specified	In case of doubt
Temperature	Ordinary Temperature(15 to 35℃)	20 to 30℃
Humidity	Ordinary Humidity(25 to 85% RH)	50 to 80 %RH

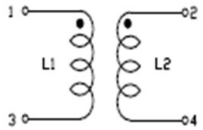
BPCP00121280 Series Specification

6 Configuration and Dimensions:

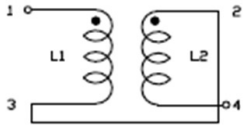


A: 12.0± 0.5 mm
B: 12.0± 0.5 mm
C: 8.0 Max. mm

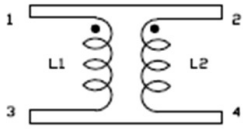
Dual Inductor Mode



Series Mode



Parallel Mode



7 Electrical Characteristics:

Part No.	Inductance L(μH)	Parallel Ratings				Series Ratings				Marking
		OCL	Resistance	Rated DC Current		OCL	Resistance	Rated DC Current		
		(μH)±20%	RDC(Ω)Typ.	IDC1(A)	IDC2(A)	(μH)±20%	RDC(Ω)Typ.	IDC1(A)	IDC2(A)	
BPCP00121280100MAE	10	10.47	19m	11.20	6.04	41.88	76m	5.60	3.02	●100

Test Frequency : 100kHz,0.25V

1.Operating temperature range －40℃ ~ 125℃(Including self - temperature rise)

2.Parallel:(1,2-3,4) Series:(1-4)tie(2-3)

3.IDC1： Based on inductance change (△L/Lo： drop 30% Typ.)@ ambient temp. 25℃

4.IDC2： Based on temperature rise (△T： 40℃ Typ.)

5.Rated DC Current： The less value which is IDC1 or IDC2.

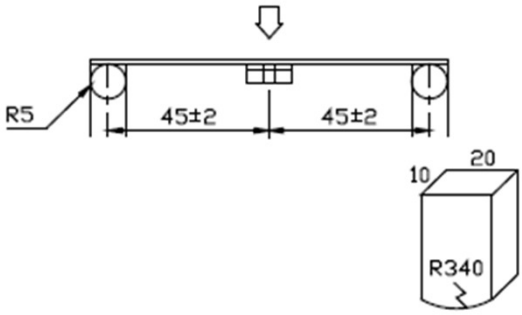
6.Turns Ratio(1-3):(2-4) 1:1

BPCP00121280 Series Specification

ELECTRICAL

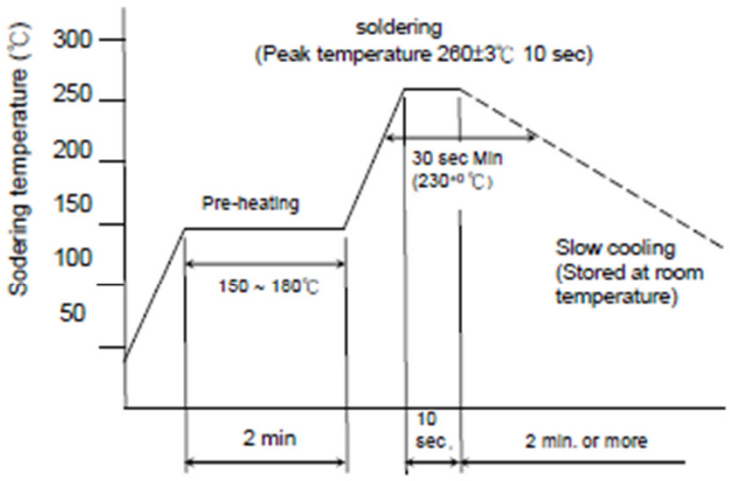
TEST ITEM	SPECIFICATION	TEST DETAILS
Temperature characteristics	△L/L20℃≦±10% 0～2000 ppm/℃	The test shall be performed after the sample has stabilized in an ambient temperature of -20 to +85℃,and the value calculated based on the value applicable in a normal temperature and narmal humidity shall be △L/L20℃≦±10%.

MECHANICAL

TEST ITEM	SPECIFICATION	TEST DETAILS
Substrate bending	△L/Lo≦±5% There shall be no mechanical damage or elec-trical damage.	The sample shall be soldered onto the printed circuit board in figure 1 and a load applied unitil the figure in the arrow direction is made approximately 3mm.(keep time 30 seconds) PCB dimension shall the page 7/9 F(Pressurization)  PRESSURE ROD figure-1

BPCP00121280 Series Specification

MECHANICAL

TEST ITEM	SPECIFICATION	
Vibration	△L/Lo≦±5% There shall be no mechanical damage.	The sample shall be soldered onto the printed circuit board and when a vibration having an amplitude of 1.52mm and a frequency of from 10 to 55Hz/1 minute repeated should be applied to the 3 directions (X,Y,Z) for 2 hours each. (A total of 6 hours)
Solderability	New solder More than 90%	Flux (rosin, isopropyl alcohol{JIS-K-1522}) shall be coated over the whole of the sample before hard, the sample shall then be preheated for about 2 minutes in a temperature of 130～150℃ and after it has been immersed to a depth 0.5mm below for 3±0.2 seconds fully in molten solder M705 with a temperature of 245±5℃. More than 90% of the electrode sections shall be couered with new solder smoothly when the sample is taken out of the solder bath.
Resistance to Soldering heat (reflow soldering)	There shall be no damage or problems.	Temperature profile of reflow soldering  The specimen shall be passed through the reflow oven with the condition shown in the above profile for 1 time. The specimen shall be stored at standard atmospheric conditions for 1 hour, after which the measurement shall be made.

BPCP00121280 Series Specification

ENVIROMENT CHARACTERISTICS

<table>
<tr><th>TEST ITEM</th><th colspan="2">SPECIFICATION</th></tr>
<tr><td>High temperature storage</td><td>△L/Lo≦±5%

There shall be no mechanical damage.</td><td>The sample shall be left for 96±4 hours in an atmospere with a temperature of 125℃ and a normal humidity.
Upon completion of the measurement shall be made after the sample has been left in a normal temperature and normal humidity for 1 hour.</td></tr>
<tr><td>Low temperature storage</td><td>△L/Lo≦±5%

There shall be no mechanical damage.</td><td>The sample shall be left for 96±4 hours in an atmosphere with a temperature of -40±3℃.
Upon completion of the test, the measurement shall be made after the sample has been left in a normal temperature and normal humidity for 1 hour.</td></tr>
<tr><td>Change of temperature</td><td>△L/Lo≦±5%

There shall be no other dama-ge of problems</td><td>The sample shall be subject to 5 continuos cycles, such as shown in the table 2 below and then it shall be subjected to standard atmospheric conditions for 1 hour, after which measurement shall be made.

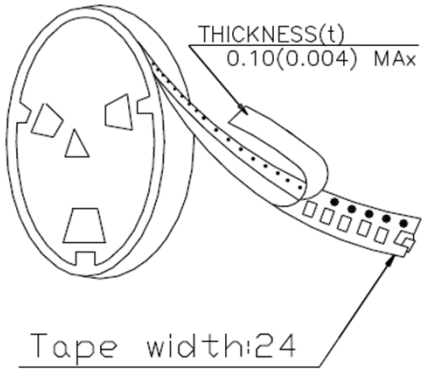
table 2
<table><tr><th></th><th>Temperature</th><th>Duration</th></tr><tr><td>1</td><td>－40±3℃
(Themostat No.1)</td><td>30 min.</td></tr><tr><td>2</td><td>Standard atmospheric</td><td>No.1→No.2</td></tr><tr><td>3</td><td>125±2℃
(Themostat No.2)</td><td>30 min.</td></tr><tr><td>4</td><td>Standard atmospheric</td><td>No.2→No.1</td></tr></table></td></tr>
<tr><td>Moisture storage</td><td>△L/Lo≦±5%

There shall be no mechanical damage.</td><td>The sample shall be left for 96±4 hours in a temperature of 40±2℃ and a humidity(RH) of 90～95%.
Upon completion of the test, the measurement shall be made after the sample has been left in a normal temperature and normal humidity more than 1 hour.</td></tr>
<tr><td colspan="3">Test conditions：
The sample shall be reflow soldered onto the printed circuit board in every test.</td></tr>
</table>

BPCP00121280 Series Specification

8 Packaging:

8.1 Packaging -Cover Tape

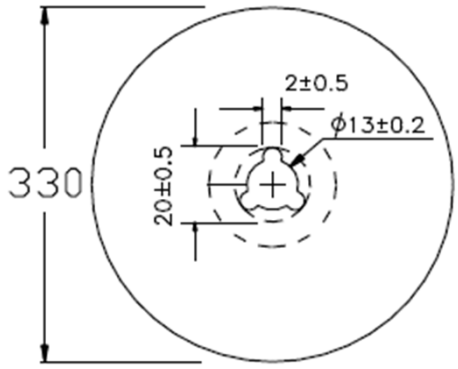


8.2 Packaging Quantity

TYPE	PCS/REEL
121280	500

8.3 Reel Dimensions

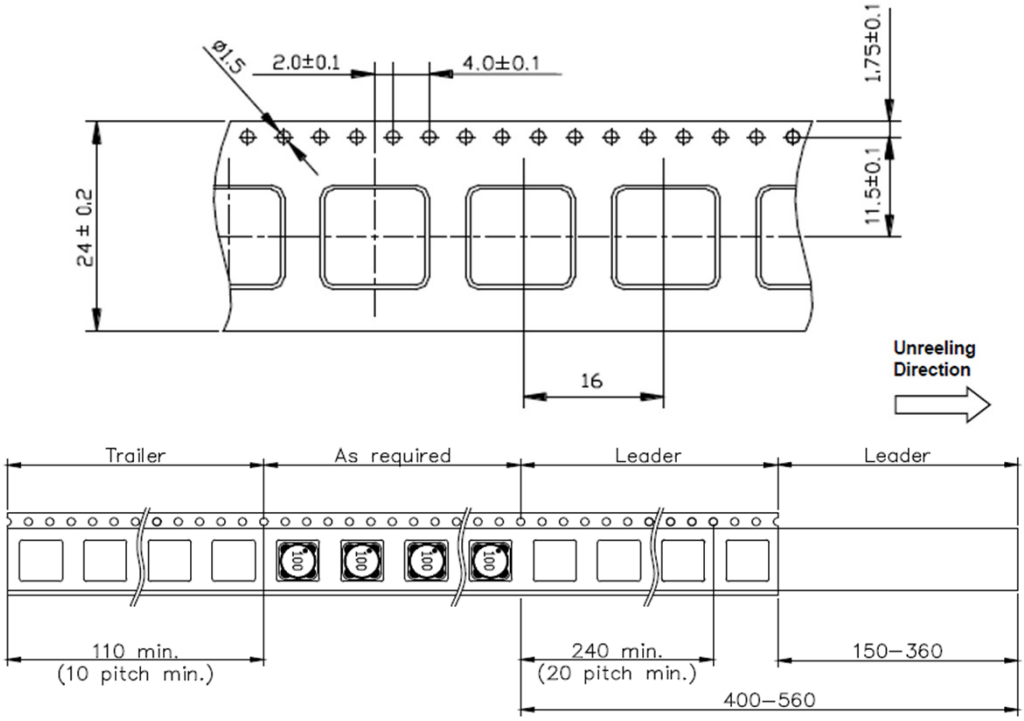
Unit : mm



BPCP00121280 Series Specification

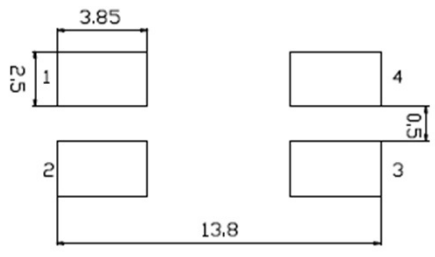
8 Packaging:

8.4 Tape Dimensions in mm



9 Recommended Land Pattern:

(STANDARD PATTERN) Unit:mm



Dual Inductor Mode

Series Mode

10 Note:

1. Please make sure that your product has been evaluated and confirmed against your specifications when our product is mounted to your product.
2. Do not knock or 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)
5. The moisture sensitivity level (MSL) of products is classified as level 1.