



ISO9001 ISO14001 IATF16949 CHILISIN ELECTRONICS CORP.

RoHS & Halogen Free & REACH Compliance.

SPECIFICATION FOR APPROVAL

Customer : _____

Customer P/N: _____

Drawing No : _____

Quantity : X Pcs. Date : 2020/08/17

Chilisin P/N : BWVF005050201R5T00

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

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Drawn by
朱育鈺

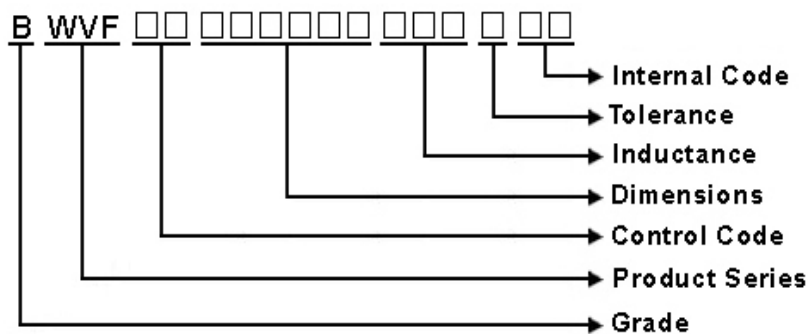
Checked by
鍾德慶 shawn.zhong

Approved by
葉信賢 Ben.Yeh

BWVF00505020 Series Specification

1 Scope: This specification applies to Wire Wound Power Inductors

2 Part Numbering:

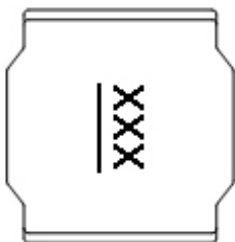


3 Rating:

Operating Temperature: $-55^{\circ}\text{C} \sim 125^{\circ}\text{C}$ (Including self - temperature rise)

Storage Temperature: $20^{\circ}\text{C} \sim 25^{\circ}\text{C}$ R.H. 65% (In Tape & Reel Condition)

4 Marking:



Ex Marking : 100

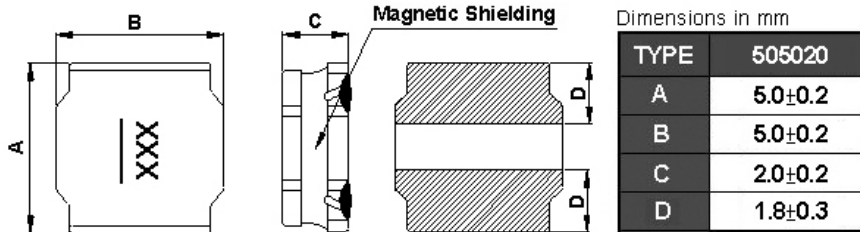
Marking color : Black

5 Standard Testing Condition

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

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6 Configuration and Dimensions:



7 Electrical Characteristics:

Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
BWVF005050201R0□00	1	100kHz,1V	18	6.0(5.40)	4.1(3.69)	20,30	1R0
BWVF005050201R5□00	1.5	100kHz,1V	23	4.9(4.41)	3.5(3.15)	20,30	1R5
BWVF005050201R8□00	1.8	100kHz,1V	26	4.1(3.60)	3.4(3.00)	20,30	1R8
BWVF005050202R2□00	2.2	100kHz,1V	30	4.0(3.60)	3.3(2.97)	20,30	2R2
BWVF005050203R6□00	3.6	100kHz,1V	50	3.1(2.70)	2.7(2.40)	20,30	3R6
BWVF005050203R9□00	3.9	100kHz,1V	53	2.9(2.61)	2.6(2.34)	20,30	3R9
BWVF005050204R7□00	4.7	100kHz,1V	60	2.7(2.43)	2.2(1.98)	20,30	4R7
BWVF005050206R8□00	6.8	100kHz,1V	93	2.2(1.98)	1.8(1.62)	20,30	6R8
BWVF00505020100□00	10	100kHz,1V	125	1.8(1.62)	1.6(1.44)	20,30	100
BWVF00505020150□00	15	100kHz,1V	195	1.4(1.26)	1.2(1.08)	20,30	150
BWVF00505020220□00	22	100kHz,1V	265	1.2(1.08)	1.0(0.90)	20,30	220

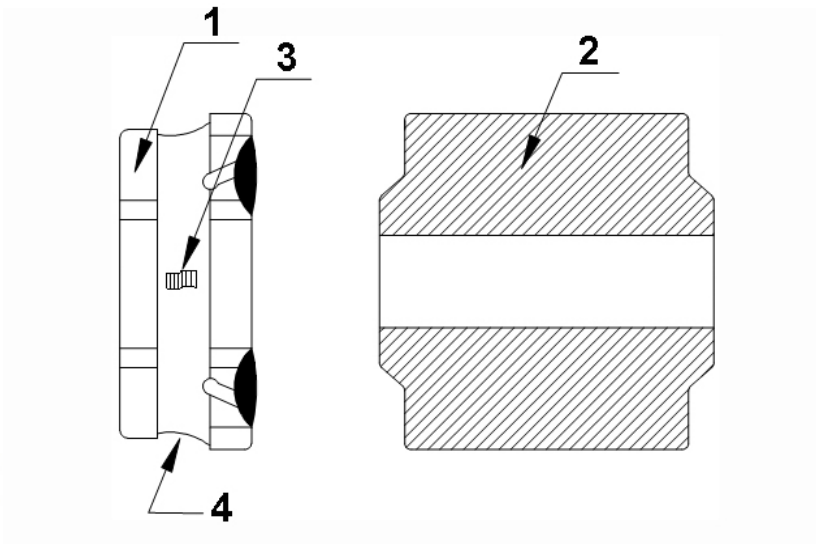
NOTE: □-tolerance M=±20% / T=±30%

1. Operating temperature range - 5 5 °C ~ 1 2 5 °C (Including self - temperature rise)
2. Isat for Inductance drop 30% from its value without current.
3. I rms for a 40°C temperature rise from 25°C ambient.

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8.1 Construction:



8.2 Material List:

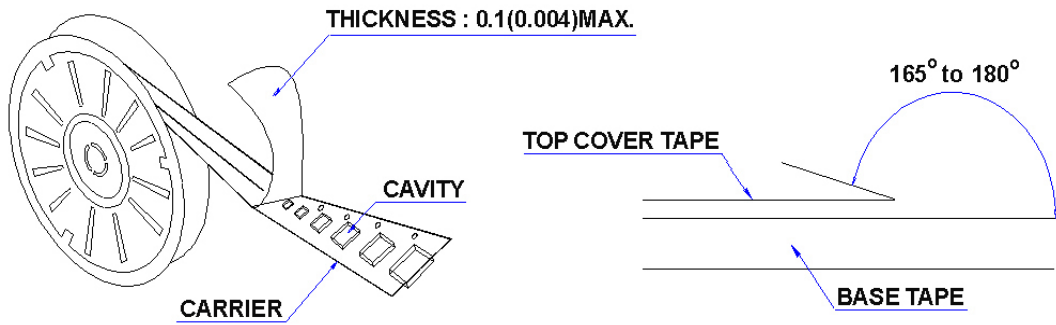
No	Part	Material
1	CORE	FERRITE
2	TERMINAL	Ag/Cu/Ni/Sn
3	WIRE	Grade 180
4	EPOXY	Magnetic powder resin

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9 Packaging:

9.1 Packaging -Cover tape

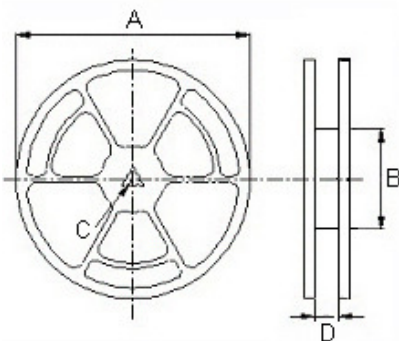
The force for tearing off cover tape is 10 to 130 grams in the arrow direction.



9.2 Packaging Quantity

TYPE	PCS/REEL
505020	2000

9.3 Reel Dimensions



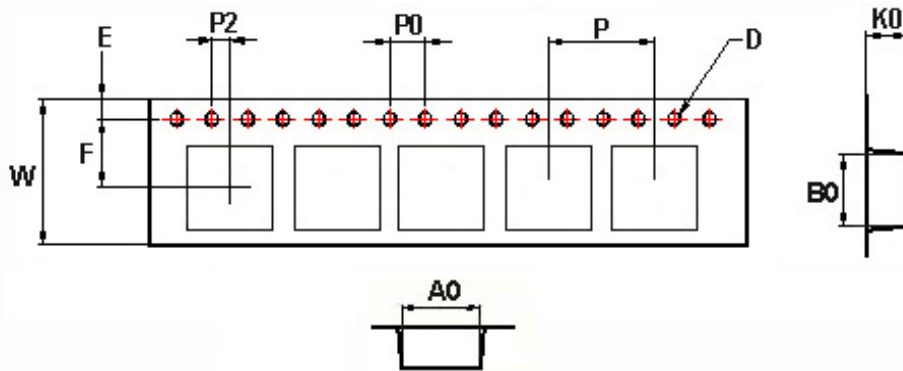
Dimensions in mm

TYPE	A	B	C	D
505020	330	100	13	13.4

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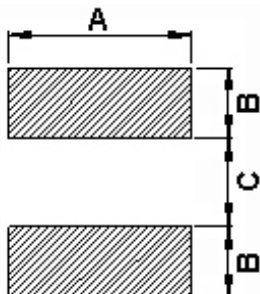
9 Packaging:

9.4 Tape Dimensions in mm



TYPE	A0	B0	K0	D	E	F	W	P	P0	P2
505020	5.25	5.25	2.2	1.55	1.75	5.5	12	8	4	2

10 Recommended Land Pattern:



Dimensions in mm

TYPE	A	B	C
505020	4.2	1.6	2.0

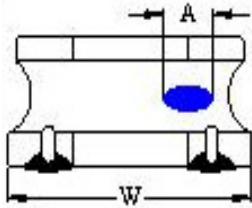
11 Note:

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 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)
5. The moisture sensitivity level (MSL) of products is classified as level 1.

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11 Note:

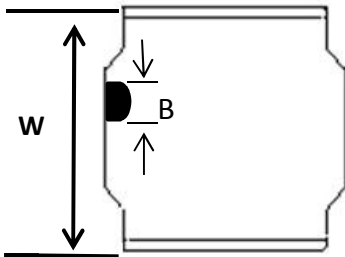
6. Void Appearance tolerance Limit



Exposed wire tolerance limit of coating resin part on product side.
The unilateral should be no more than two holes.

$$A \leq W/2 \text{ GOOD}$$

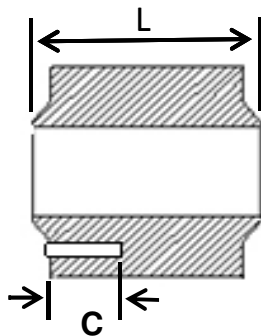
$$A > W/2 \text{ NG}$$



The appearance standard of the chipping size in top side.

$$B \leq W/8 \text{ GOOD}$$

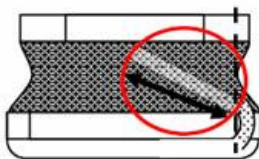
$$B > W/8 \text{ NG}$$



Electrode appearance criterion for exposed wire.

$$C \leq L/4 \text{ GOOD}$$

$$C > L/4 \text{ NG}$$



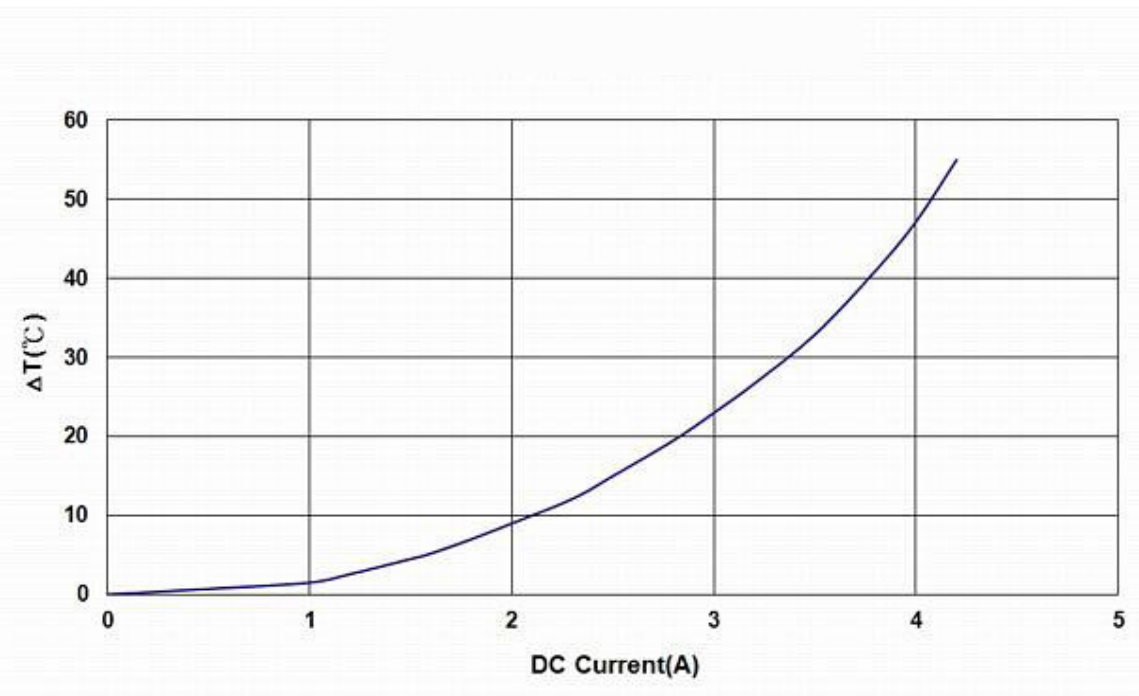
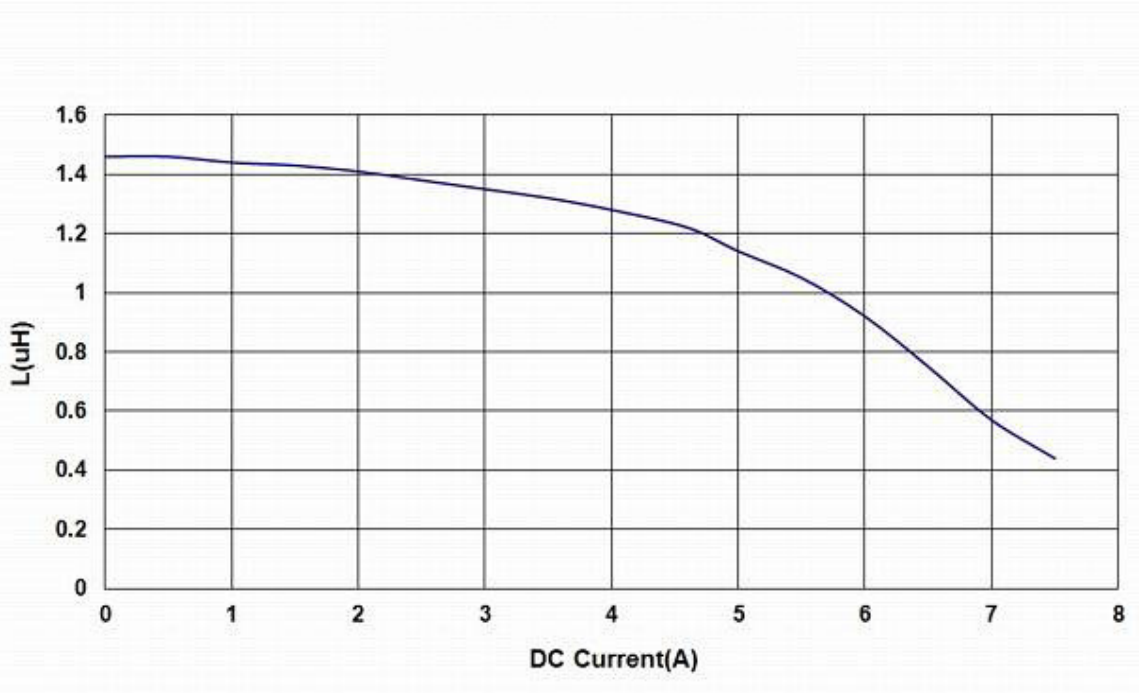
External appearance criterion for wxposed wire

Exposed end of the winding wire at the side should be acceptable.



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12 Graph: BWVF005050201R5T00



Temperature test conditions:

1. Start as the atmosphere temp. @25°C.
2. Take the reading once it becomes stable.
3. Need to wait 90Sec at least, then change to the next applied current value.