



ISO9001 ISO14001 IATF16949 CHILISIN ELECTRONICS CORP.

RoHS & Halogen Free & REACH Compliance.

### SPECIFICATION FOR APPROVAL

Customer : ELTECH

Customer P/N:

Drawing No : CE1-8B1810

Quantity : 0 Pcs. Date : 2018/12/6

Chilisin P/N : AL0307ST-4R7K-N

#### SPECIFICATION ACCEPTED BY:

|                     |  |
|---------------------|--|
| COMPONENT ENGINEER  |  |
| ELECTRICAL ENGINEER |  |
| MECHANICAL ENGINEER |  |
| APPROVED            |  |
| REJECTED            |  |

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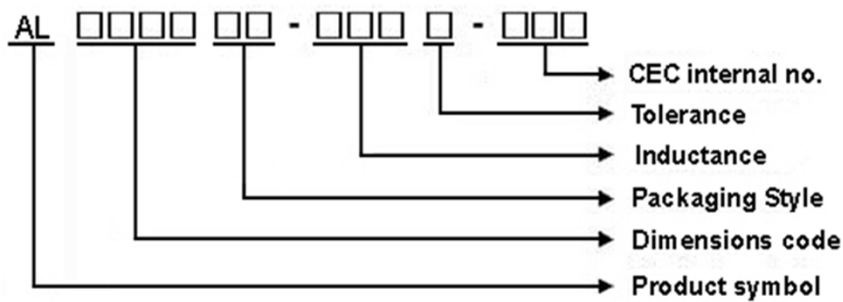
Checked by  
Huixu.Jiang

Approved by  
Shan.Tang

# AL0307ST Series Specification

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

**2 Part Numbering:**

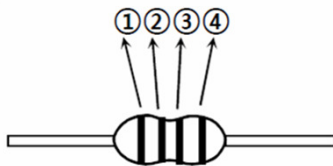


**3 Rating:**

Operating Temperature:  $-25^{\circ}\text{C} \sim 85^{\circ}\text{C}$  (Including self temp.rise)

Storage Temperature:  $-25^{\circ}\text{C} \sim 85^{\circ}\text{C}$

**4 Marking:**



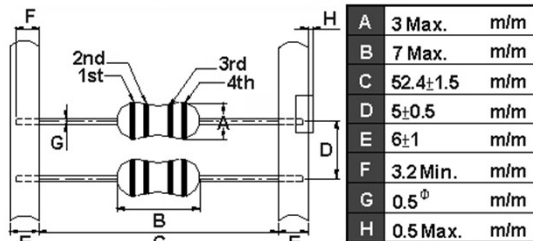
| Color  | Inductance[ $\mu\text{H}$ ] |                    |                 |                |
|--------|-----------------------------|--------------------|-----------------|----------------|
|        | First figure<br>①           | Second figure<br>② | Multiplier<br>③ | Tolerance<br>④ |
| Black  | 0                           |                    | $\times 1$      | $\pm 20\%$     |
| Brown  | 1                           |                    | $\times 10$     | -              |
| Red    | 2                           |                    | $\times 100$    | -              |
| Orange | 3                           |                    | $\times 1000$   | -              |
| Yellow | 4                           |                    | -               | -              |
| Green  | 5                           |                    | -               | -              |
| Blue   | 6                           |                    | -               | -              |
| Purple | 7                           |                    | -               | -              |
| Gray   | 8                           |                    | -               | -              |
| White  | 9                           |                    | -               | -              |
| Gold   | -                           |                    | $\times 0.1$    | $\pm 5\%$      |
| Silver | -                           |                    | $\times 0.01$   | $\pm 10\%$     |

**5 Standard Testing Condition**

|             | Unless otherwise specified                        | In case of doubt           |
|-------------|---|----------------------------|
| Temperature | Ordinary Temperature(15 to $35^{\circ}\text{C}$ ) | $20 \pm 2^{\circ}\text{C}$ |
| Humidity    | Ordinary Humidity(25 to 85% RH)                   | 60 to 70 % RH              |

## AL0307ST Series Specification

### 6 Configuration and Dimensions:



### 7 Electrical Characteristics:

| Part No.        | L<br>( $\mu$ H) | Tolerance<br>(%) | Q<br>Min. | Test<br>Freq.<br>(MHz) | SRF<br>(MHz)Min. | RDC<br>( $\Omega$ )Max. | IDC<br>(mA) | Color Code |     |     |
|-----------------|-----------------|------------------|-----------|------------------------|------------------|-------------------------|-------------|------------|-----|-----|
|                 |                 |                  |           |                        |                  |                         |             | 1st        | 2nd | 3rd |
| AL0307ST-4R7□-N | 4.7             | 5,10,20          | 45        | 7.96                   | 35               | 0.35                    | 530         | YEL        | VIO | GLD |

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

- Operating temperature range -25°C ~ 85°C (Including self - temperature rise)
  - 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)



ISO9001 ISO14001 IATF16949 CHILISIN ELECTRONICS CORP.

# AL0307ST Series Specification

## 8 Test Data

Chilisin P/N: AL0307ST-4R7K-N

| Measured Item | L (uH)   | Q       | SRF (MHz) | RDC (Ω) | IDC (mA) | A mm  | B mm  | C mm   | D mm     | E mm    | G mm    |         |
|---------------|----------|---------|-----------|---------|----------|-------|-------|--------|----------|---------|---------|---------|
| Spec          | Customer | 4.7±10% |           |         |          |       |       |        |          |         |         |         |
|               | Suggest  |         | 45-0      | 35-0    | 0.35+0   | 530   | 3+0   | 7+0    | 52.4±1.5 | 5.0±0.5 | 6.0±1.0 | 0.5±0.1 |
| Test Freq.    | 7.96MHz  | 7.96MHz |           |         |          |       |       |        |          |         |         |         |
| 1             | 4.8      | 62      | 47.4      | 0.310   | 850      | 2.51  | 6.30  | 52.07  | 5.01     | 6.12    | 0.46    |         |
| 2             | 4.83     | 63      | 46.9      | 0.300   | 900      | 2.57  | 6.35  | 52.53  | 4.96     | 6.12    | 0.45    |         |
| 3             | 4.94     | 66      | 42.2      | 0.309   | 900      | 2.58  | 6.28  | 52.20  | 5.08     | 6.13    | 0.45    |         |
| 4             | 4.7      | 63      | 48.6      | 0.303   | 900      | 2.56  | 6.13  | 52.18  | 5.01     | 6.15    | 0.45    |         |
| 5             | 4.73     | 59      | 45.7      | 0.303   | 900      | 2.57  | 6.04  | 52.05  | 5.24     | 6.09    | 0.46    |         |
| 6             | 4.6      | 62      | 66.0      | 0.301   | 900      | 2.53  | 6.20  | 52.36  | 5.09     | 6.08    | 0.44    |         |
| 7             | 4.44     | 67      | 48.7      | 0.298   | 900      | 2.58  | 6.18  | 52.41  | 5.16     | 6.1     | 0.45    |         |
| 8             | 4.52     | 63      | 42.1      | 0.299   | 900      | 2.54  | 6.25  | 52.60  | 5.14     | 6.12    | 0.44    |         |
| 9             | 4.53     | 67      | 52.4      | 0.303   | 900      | 2.52  | 6.16  | 52.08  | 5.08     | 6.12    | 0.44    |         |
| 10            | 4.52     | 63      | 41.0      | 0.312   | 900      | 2.57  | 6.15  | 52.56  | 4.98     | 6.15    | 0.45    |         |
| 11            |          |         |           |         |          |       |       |        |          |         |         |         |
| 12            |          |         |           |         |          |       |       |        |          |         |         |         |
| 13            |          |         |           |         |          |       |       |        |          |         |         |         |
| 14            |          |         |           |         |          |       |       |        |          |         |         |         |
| 15            |          |         |           |         |          |       |       |        |          |         |         |         |
| $\bar{X}$     | 4.661    | 63.5    | 48.1      | 0.3038  | 895      | 2.553 | 6.204 | 52.304 | 5.075    | 6.118   | 0.449   |         |
| R             | 0.5      | 8       | 25        | 0.014   | 50       | 0.07  | 0.31  | 0.55   | 0.28     | 0.07    | 0.02    |         |
| Customer      |          |         |           |         |          |       |       |        |          |         |         |         |
| Sample        |          |         |           |         |          |       |       |        |          |         |         |         |

Test Instrument

L,Q:HP4285+HP42851A  
 SRF:HP4287A  
 RDC:Chroma 16502  
 IDC:CHEN HWA CH1061+301A OR HP4284A+HP42841A

Appearance and Dimensions:

SPEC : Refer to Item 6  
 Test Method : Visual Inspection and Measured with Slide Calipers.

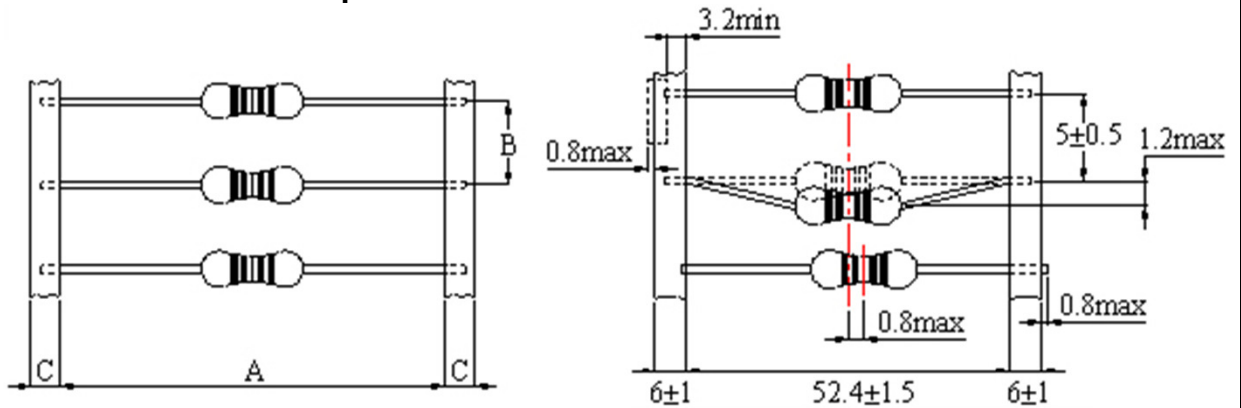
Test Conditions:

|             | 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     |

# AL0307ST Series Specification

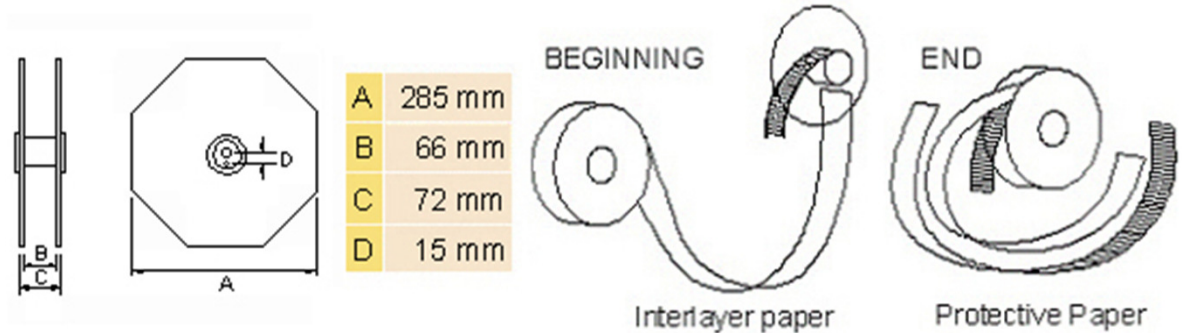
## 9 Dimensions

### 9.1 Dimensions of Tape



DRAWING    **A** 52.4±1.5mm    **B** 5±0.5mm    **C** 6±1.0mm

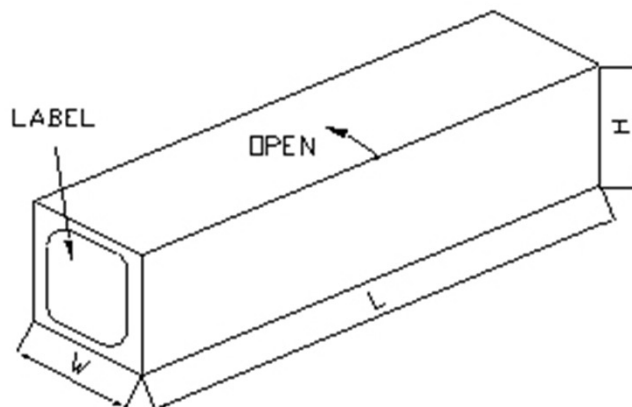
### 9.2 Dimensions of Reel



**A** 285 mm  
**B** 66 mm  
**C** 72 mm  
**D** 15 mm

### 9.3 Dimensions of Ammunition Pack

-N-B ( for inner tape : 52.4 ± 1.5 mm width )



| ITEM   | W(m/m) | H(m/m) | L(m/m) |
|--------|--------|--------|--------|
| AL0204 | 75     | 60     | 255    |
| AL0307 | 75     | 60     | 255    |
| AL0410 | 75     | 95     | 255    |
| AL0510 | 75     | 85     | 255    |



## AL0307ST Series Specification

### 10 Packaging:

#### 10.1 Reel Packaging

| PART NO           | QUANTITY PER REEL | QUANTITY CARTON |
|-------------------|-------------------|-----------------|
| AL0204ST SERIES-N | 4000 PCS          | 20000 PCS       |
| AL0307ST SERIES-N | 4000 PCS          | 20000 PCS       |
| AL0410ST SERIES-N | 3000 PCS          | 15000 PCS       |
| AL0510ST SERIES-N | 2500 PCS          | 12500 PCS       |

#### 10.2 Ammunition Packaging

| PART NO             | QUANTITY PER AMMU. | QUANTITY CARTON |
|---------------------|--------------------|-----------------|
| AL0204ST-SERIES-N-B | 3000 PCS           | 75000 PCS       |
| AL0307ST-SERIES-N-B | 2000 PCS           | 50000 PCS       |
| AL0410ST-SERIES-N-B | 2000 PCS           | 30000 PCS       |
| AL0510ST-SERIES-N-B | 1000 PCS           | 20000 PCS       |

#### 10.3 In Bulks

| PART NO          | QUANTITY PER BAG |
|------------------|------------------|
| AL0204S SERIES-N | 500 PCS          |
| AL0307S SERIES-N | 500 PCS          |
| AL0410S SERIES-N | 500 PCS          |
| AL0510S SERIES-N | 500 PCS          |

### 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.