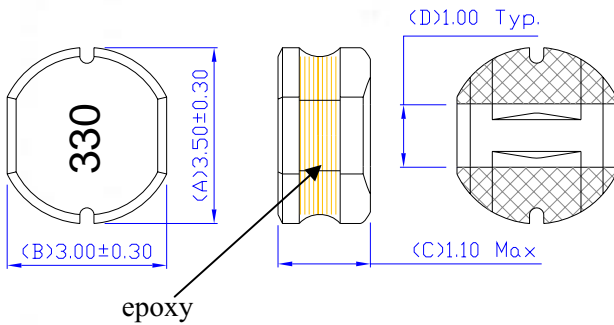


## 1. Features

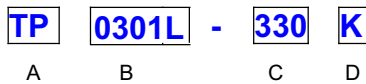
1. Low profile very effective in space-conscious applications
2. Low resistance and high energy storage.

## 2. Dimension



| Item         | A (mm)    | B (mm)    | C (mm)   | D(mm)    |
|--------------|-----------|-----------|----------|----------|
| <b>0301L</b> | 3.50±0.30 | 3.00±0.30 | 1.10 Max | 1.0 Typ. |

## 3. Part Numbering



A:Series

B:Dimension      AxC

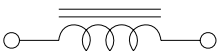
C:Inductance

D:Inductance Tolerance

330=33.0  $\mu$  H

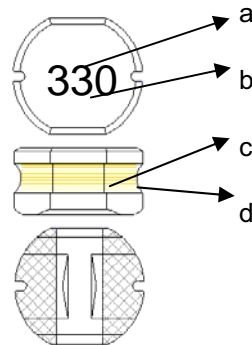
K=±10%, M=±20%

## 4. Schematic Diagram



## 5. Materials

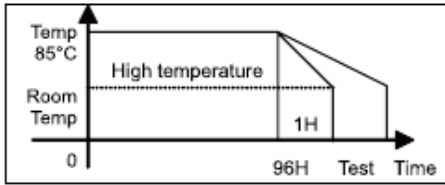
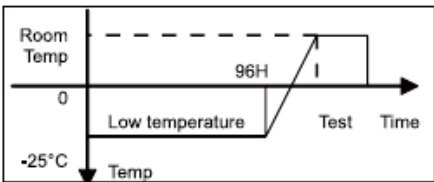
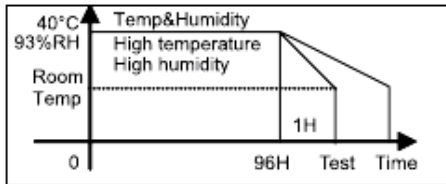
| No. | Description | Specification    |
|-----|-------------|------------------|
| a.  | Marking     |                  |
| b.  | Drum Core   | Ferrite Core     |
| c.  | Wire        | Polysol 155 Wire |
| d.  | Adhesive    | Single Compound  |
|     |             |                  |
|     |             |                  |



## 6. Specification

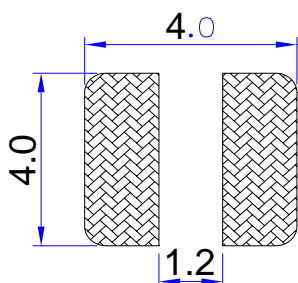
| BULLWILL Part No. | Inductance ( $\mu\text{H}$ ) $\pm 20\%$ | DC Resistance ( $\Omega$ )Max | FLL (@ $I_{\text{sat}}$ ) ( $\mu\text{H}$ )Min | $I_{\text{sat}}$ Amperes Peak for approximately 30% roll off (@ 20°C). | Irms Amperes for approximately a $\Delta T$ of 40°C. above 85°C ambient |
|-------------------|---|-------------------------------|--|--|---|
| TP0301L-R39M      | 0.39                                    | 0.0635                        | 0.2808   | 2.343  | 2.572   |
| TP0301L-R68M      | 0.68                                    | 0.0796                        | 0.4896   | 1.822  | 2.298   |
| TP0301L-1R0M      | 1                                       | 0.0972                        | 0.72   | 1.491  | 2.079   |
| TP0301L-1R2M      | 1.2                                     | 0.1164                        | 0.864  | 1.262  | 1.9   |
| TP0301L-1R5M      | 1.5                                     | 0.137                         | 1.08   | 1.093  | 1.751   |
| TP0301L-2R2M      | 2.2                                     | 0.1771                        | 1.584  | 0.965  | 1.54  |
| TP0301L-2R7M      | 2.7                                     | 0.1993                        | 1.944  | 0.863  | 1.452   |
| TP0301L-3R3M      | 3.3                                     | 0.2222                        | 2.376  | 0.781  | 1.375   |
| TP0301L-3R9M      | 3.9                                     | 0.2512                        | 2.808  | 0.713  | 1.293   |
| TP0301L-4R7M      | 4.7                                     | 0.3479                        | 3.384  | 0.656  | 1.099   |
| TP0301L-5R6M      | 5.6                                     | 0.3799                        | 4.032  | 0.607  | 1.051   |
| TP0301L-6R8M      | 6.8                                     | 0.4548                        | 4.896  | 0.529  | 0.961   |
| TP0301L-8R2M      | 8.2                                     | 0.5593                        | 5.904  | 0.497  | 0.867   |
| TP 0301L-100K     | 10                                      | 0.6437                        | 8.1  | 0.443  | 0.808   |
| TP 0301L-120K     | 12                                      | 0.7326                        | 9.72   | 0.4  | 0.757   |
| TP 0301L-150K     | 15                                      | 0.8262                        | 12.15  | 0.364  | 0.713   |
| TP 0301L-180K     | 18                                      | 1.1527                        | 14.58  | 0.322  | 0.604   |
| TP 0301L-220K     | 22                                      | 1.2744                        | 17.82  | 0.298  | 0.574   |
| TP 0301L-270K     | 27                                      | 1.6483                        | 21.87  | 0.269  | 0.505   |
| TP 0301L-330K     | 33                                      | 1.8533                        | 26.73  | 0.245  | 0.476   |
| TP 0301L-390K     | 39                                      | 2.4439                        | 31.59  | 0.225  | 0.415   |
| TP 0301L-470K     | 47                                      | 3.1843                        | 38.07  | 0.202  | 0.363   |
| TP 0301L-560K     | 56                                      | 3.5723                        | 45.36  | 0.184  | 0.343   |
| TP 0301L-680K     | 68                                      | 3.9752                        | 55.08  | 0.169  | 0.325   |
| TP 0301L-820K     | 82                                      | 4.5252                        | 66.42  | 0.153  | 0.305   |
| TP 0301L-101K     | 100                                     | 5.9396                        | 81   | 0.138  | 0.266   |
| TP 0301L-121K     | 120                                     | 6.6233                        | 97.2   | 0.127  | 0.252   |
| TP 0301L-151K     | 150                                     | 9.0352                        | 121.5  | 0.113  | 0.216   |
| TP 0301L-181K     | 180                                     | 10.1647                       | 145.8  | 0.103  | 0.203   |
| TP 0301L-221K     | 220                                     | 13.5631                       | 178.2  | 0.094  | 0.176   |
| TP 0301L-271K     | 270                                     | 15.6056                       | 218.7  | 0.084  | 0.164   |
| TP 0301L-331K     | 330                                     | 17.7539                       | 267.3  | 0.076  | 0.154   |
|                   |   |                               |  |  |   |
|                   |   |                               |  |  |   |
|                   |   |                               |  |  |   |
|                   |   |                               |  |  |   |
|                   |   |                               |  |  |   |

## 7. Reliability Test Conditions

| Item   | Required Characteristics   | Test Method / Condition  |
|--|--|--|
| <b>Environmental tests</b>   |  |  |
| High temperature Storage test<br><br>Reference documents:<br>MIL-STD-202G<br>Method 108A |  | Temperature: $85\pm 2^{\circ}\text{C}$<br>Time : $96\pm 2$ hours<br>Tested not less than 1 hour, nor more than 2 hours at room temperature.    |
| Low temperature Storage test<br><br>Reference documents:<br>IEC 68-2-1A 6.1 6.2          | 1.No case deformation or change in appearance.<br>2. $\Delta L/L \leq 10\%$ $\Delta L/L \leq 30\%$<br>(Close Magnetic Circuit)<br>3. $\Delta Q/Q \leq 30\%$<br>4. $\Delta DCR/DCR \leq 10\%$ | Temperature: $-25\pm 2^{\circ}\text{C}$<br>Time : $96\pm 2$ hours<br>Tested not less than 1 hour, nor more than 2 hours at room temperature.    |
| Humidity Test<br><br>Reference documents:<br>MIL-STD-202G                                |  | 1. Dry oven at a temperature of $40^{\circ} \pm 5^{\circ}\text{C}$ for 24 hours.<br>2. Measurements At the end of this period.<br>3. Exposure: Temperature: $40\pm 2^{\circ}\text{C}$ , Humidity: $93\pm 3\%\text{RH}$ Time : $96\pm 2$ hours<br>4. Tested while the specimens are still in the chamber<br>5. Tested (Second Time) not less than 1 hour, nor more than 2 hours at room temperature.  |

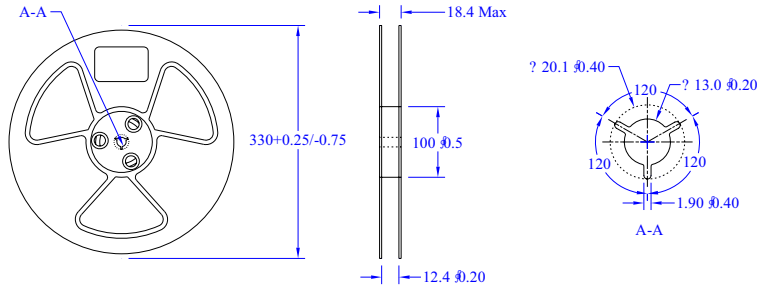
### 8.1. Design of Land Pattern And Solderability

Terminations to be well soldered after immersion in a Sn(99.3)/Cu(0.7) tin/lead solder bath at  $245 \pm 5^{\circ}\text{C}$  for  $5 \pm 1$  seconds.

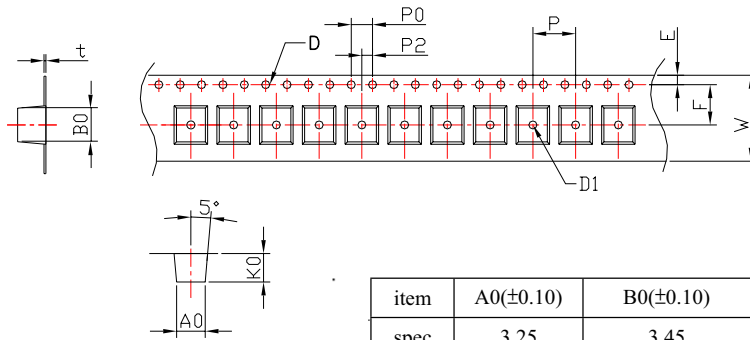


## 8. Packaging Information

### 8-1. Reel Dimension & Tape Dimension

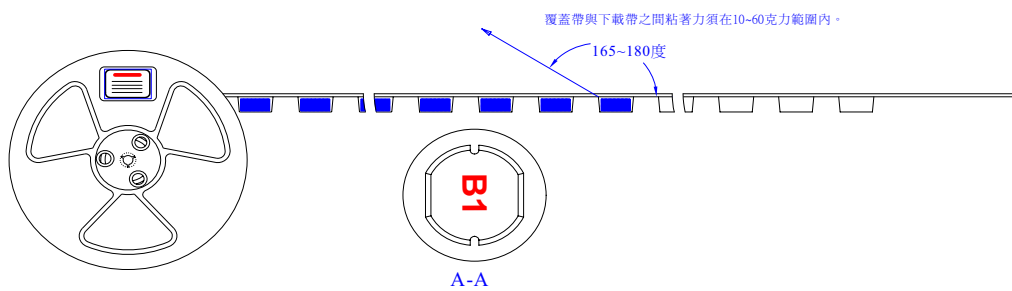
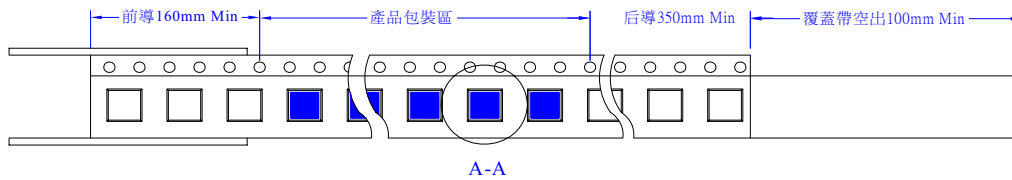


### 8.2. Tape Dimension (Unit:mm)



|      |           |           |           |          |          |          |
|------|-----------|-----------|-----------|----------|----------|----------|
| item | A0(±0.10) | B0(±0.10) | K0(±0.10) |          | t(±0.05) | W(±0.30) |
| spec | 3.25      | 3.45      | 1.30      |          | 0.30     | 12.0     |
| item | P0(±0.10) | P(±0.10)  | P2(±0.10) | E(±0.10) | F(±0.10) | D(±0.05) |
| spec | 4.0       | 8.0       | 2.0       | 1.75     | 5.5      | 1.50     |

### 8.3. Packaging Specification



### 8.4. Packaging Quantity

| Type    | Pcs / Reel | Inner box | Middle box | Carton |
|---------|------------|-----------|------------|--------|
| TP0301L | 4000       | 20,000    | 40,000     | 40,000 |

| Room Temp. (°C) | Room Humidity (%) | Room atm (hPa) | Tearing Speed mm/min |
|-----------------|-------------------|----------------|----------------------|
| 5~35            | 45~85             | 860~1060       | 300                  |