

# 承 認 書

## SPECIFICATION FOR APPROVAL

CUSTOMER: \_\_\_\_\_

DESCRIPTION: \_\_\_\_\_ POWER INDUCTORS \_\_\_\_\_

FA PART NO: \_\_\_\_\_ RLP0895-222K-LF \_\_\_\_\_

CUSTOMER MODEL NO: \_\_\_\_\_

| DRAWING         |             |             |
|-----------------|-------------|-------------|
| MADE            | CHECKED     | APPROVED    |
| 石<br>莉<br>红     | 邓<br>永<br>雄 | 钟<br>远<br>明 |
| DATE: 2017-7-24 |             |             |

| CUSTOMER APPROVE |
|------------------|
|                  |

天长市富安电子有限公司

TIANCHANG FUAN ELECTRONICS CO.,LTD

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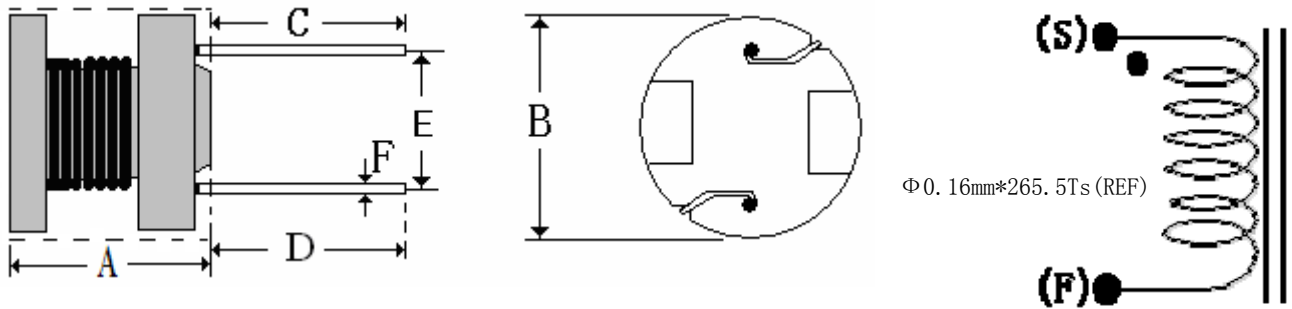




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**1. SHAPES AND DIMENSIONS (UNIT:mm) ELECTRICAL SCHEMATICS**



| CODE      | A       | B      | C       | D       | E       | F        |  |
|-----------|---------|--------|---------|---------|---------|----------|--|
| DIMENSION | 10.0MAX | 9.5MAX | 4.0±1.0 | 4.0±1.0 | 5.0±0.5 | 0.60±0.1 |  |

**2. ELECTRICAL SPECIFICATION & TEST INSTRUMENTS@25°C**

| ITEM     | SPEC. RANGE | TEST CONDITION | TEST INSTRUMENTS |
|----------|-------------|----------------|------------------|
| Ls (mH)  | 2.2*(1±10%) | 10KHz/1V       | 1062A            |
| Isat (A) | 0.17        |                | VR116+VR7210     |
| DCR (Ω)  | 5.0max      |                | 502BC            |
|          |             |                |                  |
|          |             |                |                  |

**3. PART NUMBERING SYSTEM**

**RL**    □□□□    □R□    □    □□  
**1**        **2**        **3**        **4**        **5**

- 1 PRODUCT SYMBOL (产品代号)
- 2 DIMENSIONS (规格尺寸)
- 3 INDUCTANCE (电感量)
- 4 TOLERANCE (公差) : J±5%; K±10%; L±15%; M±20%; P±25%; N±30%
- 5 E.P. (环保) : LF—Lead Free HF—Halogen Free FP—Red Phosphor Free

|             |            |       |
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| APPROVED BY | CHECKED BY | DRAFT |
| 钟远明         | 邓永雄        | 石莉红   |

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**4. TEST DATA OF ELECTRICAL CHARACTERISTIC**

| TEST ITEM | Ls          | L isat    | DCR     |  |  |
|-----------|-------------|-----------|---------|--|--|
|           | (mH)        | (mH)      | (Ω)     |  |  |
| CON.      | 10KHz/1V    | 0.17A     | At 25°C |  |  |
| SPEC.     | 2.2*(1±10%) | Drop 10 % | 5.0max  |  |  |
| 1         | 2.17        | 2.16      | 3.63    |  |  |
| 2         | 2.18        | 2.17      | 3.60    |  |  |
| 3         | 2.20        | 2.17      | 3.60    |  |  |
| 4         | 2.17        | 2.16      | 3.61    |  |  |
| 5         | 2.19        | 2.17      | 3.62    |  |  |
| 6         | 2.18        | 2.17      | 3.63    |  |  |
| 7         | 2.17        | 2.16      | 3.64    |  |  |
| 8         | 2.16        | 2.15      | 3.60    |  |  |
| 9         | 2.16        | 2.14      | 3.61    |  |  |
| 10        | 2.19        | 2.18      | 3.60    |  |  |
| X         | 2.177       | 2.163     | 3.614   |  |  |
| R         | 0.04        | 0.04      | 0.04    |  |  |

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

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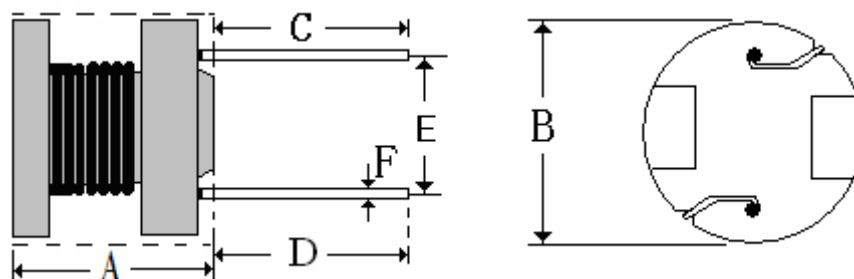
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**6 TEST DATA OF DIMENSIONS**

| CODE  | A       | B      | C       | D       | E       | F        |  |
|-------|---------|--------|---------|---------|---------|----------|--|
|       | (mm)    | (mm)   | (mm)    | (mm)    | (mm)    | (mm)     |  |
| SPEC. | 10.0MAX | 9.5MAX | 4.0±1.0 | 4.0±1.0 | 5.0±0.5 | 0.60±0.1 |  |
| 1     | 9.42    | 8.35   | 4.13    | 4.13    | 4.92    | 0.57     |  |
| 2     | 9.41    | 8.50   | 4.25    | 4.25    | 5.01    | 0.58     |  |
| 3     | 9.41    | 8.47   | 4.02    | 4.02    | 5.19    | 0.57     |  |
| 4     | 9.37    | 8.50   | 4.19    | 4.19    | 5.09    | 0.58     |  |
| 5     | 9.49    | 8.51   | 4.12    | 4.12    | 4.84    | 0.58     |  |
| 6     | 9.45    | 8.57   | 4.21    | 4.21    | 4.91    | 0.58     |  |
| 7     | 9.37    | 8.48   | 4.18    | 4.18    | 4.89    | 0.59     |  |
| 8     | 9.35    | 8.52   | 4.13    | 4.13    | 4.92    | 0.58     |  |
| 9     | 9.43    | 8.55   | 4.10    | 4.10    | 4.91    | 0.58     |  |
| 10    | 9.42    | 8.56   | 4.08    | 4.08    | 5.01    | 0.58     |  |
| X     | 9.412   | 8.501  | 4.141   | 4.141   | 4.969   | 0.579    |  |
| R     | 0.14    | 0.22   | 0.23    | 0.23    | 0.35    | 0.02     |  |

图示:



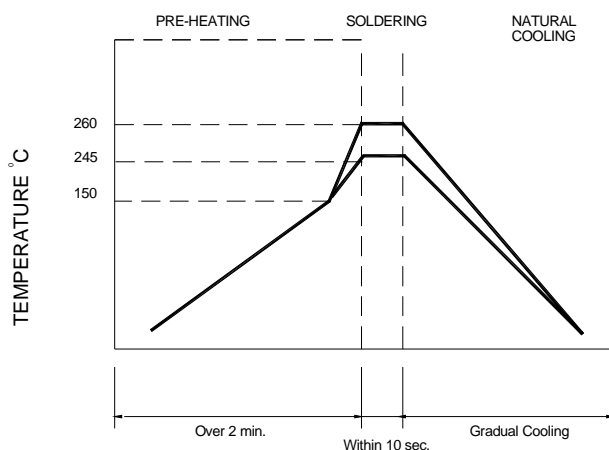
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### 7.Soldering Conditions

Wave Soldering:



Note :

- Never contact the ceramic with the iron tip
- 1.0mm tip diameter (max)

### 8.MATERIAL LIST

| NO | ITEM | DESCRIPTION        | SUPPLIER | REMARK  |
|----|------|--------------------|----------|---------|
| 1  | CORE | JA3 DR2W 7. 8*9. 3 | JC       |         |
| 2  | WIRE | QA-1 Φ0. 16mm N    | JY       | E238500 |
| 3  | TUBE | UL (Black)         | QT       | E227336 |
| 4  | PIN  | CP Φ0. 60mm        | BC       |         |
|    |      |                    |          |         |
|    |      |                    |          |         |

REMARK:

1. Operating temperature range from -20°C to +105°C
2. Storage temperature range from -20°C to +85°C

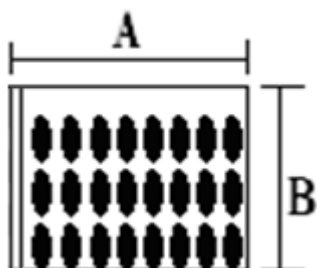
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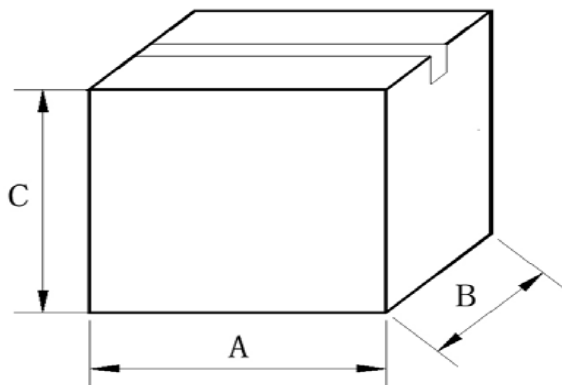
### 9. PACKAGING

#### Inner Box Dimensions



| 型号 | PE袋尺寸(cm) |      | 每袋数量   |
|----|-----------|------|--------|
|    | A         | B    |        |
| PE | 20.5      | 14.5 | 250PCS |

#### Outer Box Dimensions



| 外包装箱尺寸 (cm)      |    |      |
|------------------|----|------|
| A                | B  | C    |
| 38               | 27 | 13.5 |
| 每箱 20袋, 共5000PCS |    |      |

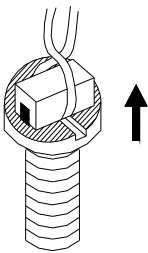
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### 7. RELIABILITY TEST

| TEST ITEM                             | SPECIFICATION   | TEST CONDITION   |
|---------------------------------------|---|--|
| Withstanding voltage test             | After test, inductors shall have no evidence of electrical and mechanical damage.   | AC voltage of 100v and AC current of 1mA applied between inductor's terminal and core for 3 secs.  |
| Resistance to soldering heat          | 1. Inductor shall have no evidence of electrical and mechanical damage.<br>2. Inductance shall not change more than $\pm 5\%$ .<br>3. Q shall not change more than $\pm 20\%$ . | a. Temp: $260 \pm 5^\circ\text{c}$<br>b. Time: $10 \pm 1.0$ secs   |
| High temperature & high humidity test | The anti-erosion quality of the surface and the specimen's inductance shall not change from the initial value within $\pm 10\%$   | a. Test condition<br>1)Temp.: $85^\circ\text{C}$ , R.H.:85%<br>2)Time: $144 \pm 2$ hours<br>b. Measurement methods:<br>The experimental component should be put at normal condition for 2 hours then to measure again after test                         |
| Salt spray test                       |   | a. Test condition<br>1)Temp.: $35 \pm 2^\circ\text{C}$<br>2)Time: $48 \pm 2$ hours<br>3)Salt solution PH:6.5~7.2<br>b. Measurement methods:<br>The experimental component should be put at normal condition for 2 hours then to measure again after test |
| PIN Component Adhesion (Pull test)    | F 1kg min<br>  | 1. Insert 10cm wire into the remaining open eye bend, the ends of even wire lengths upward and wind together.<br>2. Terminal shall not be remarkably damaged.  |

We have suggested the storage period of lead-free product should not over 6 months.

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### 7.2 RELIABILITY TEST

| TEST ITEM                        | SPECIFICATION   | TEST CONDITION   |
|----------------------------------|---|--|
| Free fall test                   | No mechanical damage shall be noticed.  | Drop 5 times on a concrete floor from 1m the height  |
| Temperature Cycling test         | 1. Inductance shall be within $\pm 10\%$ of the initial value<br>2. Appearance: No damage | a. Test condition<br>1)Temp.: $-55^{\circ}\text{C}$ ,time: $30\pm 3\text{min}$<br>2)Temp.: $+125^{\circ}\text{C}$ ,time: $30\pm 3\text{min}$<br>3)Cycles times:12 cycles<br>b. Measurement methods:<br>The experimental component should be put at normal condition for 2 hours then to measure again after test |
| High Temperature resistance test | 1. Inductance shall be within $\pm 10\%$ of the initial value<br>2. Appearance: No damage | a. Test condition<br>1)Applied rated current<br>2)Temp.: $85^{\circ}\text{C}\pm 2^{\circ}\text{C}$<br>3)Test time: $1000+24/-0\text{H}$<br>b. Measurement methods:<br>The experimental component should be put at normal condition for 24 hours then to measure again after test.                                |
| Low temperature resistance test  | 1. Inductance shall be within $\pm 10\%$ of the initial value<br>2. Appearance: No damage | a. Test condition<br>1)Temp.: $-55^{\circ}\text{C}\pm 2^{\circ}\text{C}$<br>2)Test time: $1000+24/-0\text{H}$<br>b. Measurement methods:<br>The experimental component should be put at normal condition for 24 hours then to measure again after test.  |

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