



# SPECIFICATIONS

|                             |                                      |
|-----------------------------|--------------------------------------|
| <b>Customer</b>             |                                      |
| <b>Product Name</b>         | <b>Wire Wound SMD Power Inductor</b> |
| <b>URAI Part Number</b>     | <b>1040Series</b>                    |
| <b>Customer Part Number</b> |                                      |

New Released,  Revised]

**【This SPEC is tota 6 pages.】**

**【ROHS Compliant Parts】**

| Approved By | Checked By | Issued By |
|-------------|------------|-----------|
|             |            |           |

## Shenzhen Yourui Electronics Co., Ltd.

Address: Second floor, C Building, Huiqing Science and Technology Park, Guanlan Street Dafu Industrial Zone, Longhua District, Shenzhen City, China 518000

**【For Customer approval OnYR】**

Date: \_\_\_\_\_

Qualification Status:  Full  Restricted  Rejected

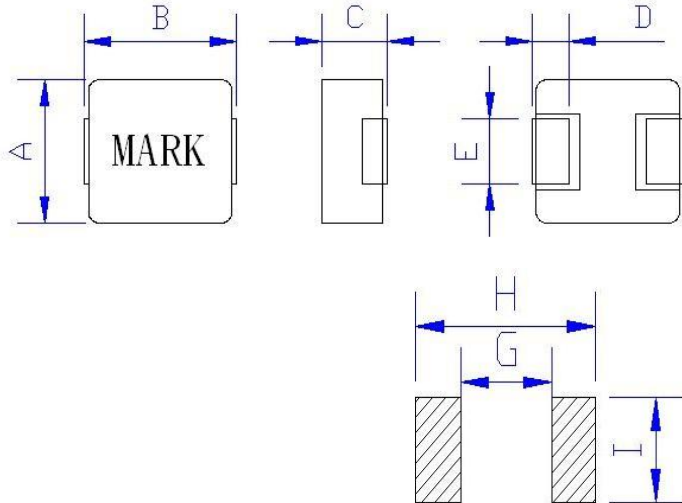
| Approved By | Verified By | Re-checked By | Checked By |
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Comments:

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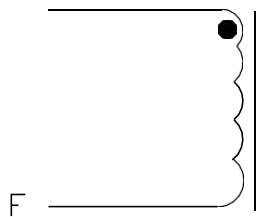
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|-----------------------|--|
| 产品名称<br>DESCRIPTION   | 一体成型贴片电感<br>SMD MOLDING POWER INDUCTOR |
| 产品型号<br>ORDERING CODE | YR1040H-Series                         |

外形尺寸及推荐焊盘 External Dimensions & PCB Pattern :



|    |            |
|----|------------|
| A: | 10.2 ± 0.3 |
| B: | 11.0 ± 0.5 |
| C: | 4.0 Max.   |
| D: | 2.0 ± 0.3  |
| E: | 3.0 ± 0.3  |
| G: | 2.9 Ref.   |
| H: | 11.8 Ref.  |
| I: | 3.5 Ref.   |

原理图 Schematic Diagram :



"●" START FOR STAND

物料清单 Material List:

| NO | ITEM   | MATERIAL | SUPPLIER OF THE MATERIAL |
|----|--------|----------|--------------------------|
| 1  | CORE   | 合金粉      | YR                       |
| 2  | COPPER | 聚酯亚胺漆包线  | TOTOKU                   |
| 3  | BLAK   | 银白色料片    | ZS                       |
| 4  | INK    | 黑色油墨     | YMS                      |



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### 电气特性 Electrical Characteristic:

\*额定电流：是指基于电感变化率时比标称电感L值低20%和基于温度上升时（因自身发热而温度上升40℃）两者中较小值。

\*饱和电流：瞬间加载后电感值 Inductance下降不超过初始电感值 Inductance30%的电流值。

\*下列参数为我司常规产品特性，如果不能满足您的需求，请与我们联系。

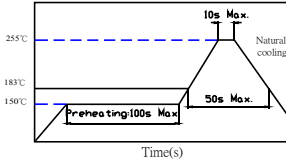
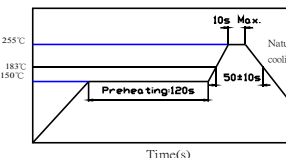
\*测量条件： 1、初始电感量L0：100KHz/1V@25±3℃。

3、工作温度范围：-40℃~85℃。

### 特性参数 Characteristic Data:

| 产品料号        | L0 (μH)<br>±20% | 直流电阻           |            | 额定电流<br>L rms (A) | 饱和电流<br>L sat (A) |
|-------------|-----------------|----------------|------------|-------------------|-------------------|
|             |                 | 典型值<br>Typical | 最大值<br>Max |                   |                   |
| YR1040-R47M | 0.47            | 1.2            | 1.8        | 20.0              | 35.0              |
| YR1040-R68M | 0.68            | 1.6            | 2.2        | 17.0              | 32.0              |
| YR1040-1R0M | 1.0             | 2.5            | 3.5        | 15.0              | 23.0              |
| YR1040-1R5M | 1.5             | 4.8            | 6.0        | 12.0              | 20.0              |
| YR1040-2R2M | 2.2             | 7.0            | 9.0        | 11.0              | 18.0              |
| YR1040-3R3M | 3.3             | 9.0            | 11.5       | 10.0              | 17.0              |
| YR1040-4R7M | 4.7             | 12.0           | 15.0       | 8.0               | 13.0              |
| YR1040-6R8M | 6.8             | 17.5           | 22.0       | 6.0               | 11.0              |
| YR1040-100M | 10.0            | 31.0           | 40.0       | 5.0               | 8.0               |
| YR1040-150M | 15              | 50             | 60         | 4.0               | 7.0               |
| YR1040-220M | 22              | 70             | 85         | 3.5               | 5.0               |
| YR1040-330M | 33              | 89             | 110        | 2.5               | 4.0               |
| YR1040-470M | 47              | 130            | 155        | 2                 | 3.5               |



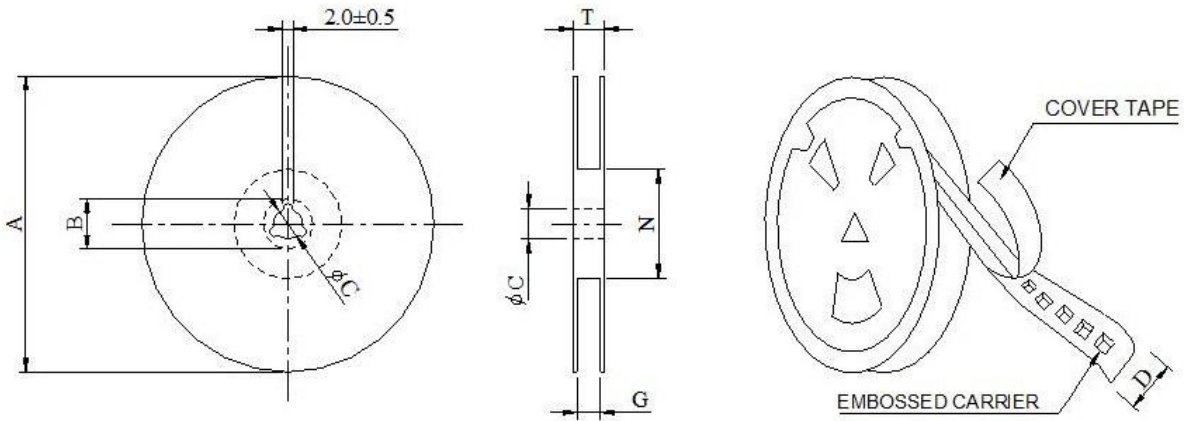
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| 产品型号<br>ORDERING CODE                     | YR1040H-Series   |   |
| <b>测试项目<br/>TEST ITEMS</b>                | <b>规格要求<br/>SPECIFICATIONS</b>   | <b>测试条件/测试方法<br/>TEST CONDITIONS / TEST METHODS</b>   |
| <b>电气特性测试 ELECTRICAL PERFORMANCE TEST</b> |  |   |
| 电感量 (L)                                   | 参照特性参数表<br>REFER TO STANDARD ELECTRICAL<br>CHARACTERISTIC LIST.                              | MICROTEST6377   |
| 直流电阻 (DCR)                                |  | TH2511  |
| 额定电流 (IDC)                                |  | 加载电流后, 电感量下降不超过30%, 或温升不超过40℃<br>APPLIED THE CURRENT TO COILS THE<br>INDUCTANCE CHANGE SHOULD BE LESS THAN 30%<br>TO INITIAL VALUE AND TEMPERATURE RISE<br>SHOULD NOT BE 40℃ TYPICAL  |
| 温升测试<br>TEMPERATURERISE TEST              | 温升不超过40℃   | 加载额定电流, 保持4小时<br>APPLIED THE ALLOWED DC CURRENT FOR 4<br>HOURS.   |
| 过载测试<br>OVER LOAD TEST                    | 没有明显的电气损坏<br>NO EVIDENCE OF ELECTRICAL<br>DAMAGE   | 加载1.5倍额定电流, 保持5分钟<br>APPLIED 1.5 TIMES OF RATED ALLOWED DC<br>CURRENT TO INDUCTORS FOR A PERIOD OF 5<br>MINUTES.  |
| <b><u>MECHANICAL PERFORMANCE TEST</u></b> |  |   |
| 耐焊性<br>SOLDER HEAT RESISTANCE             | 电感器无外观和电气特性损伤<br>INDUCTORS SHOULD HAVE NO<br>EVIDENCE OF ELECTRICAL AND<br>MICHANICAL DAMAGE | 预热: 150℃ 100s Max.<br><br>焊锡温度SOLDER TEMPERATURE:<br><br>255±5℃<br><br>DIP TIME:10s Max.<br><br> |
| 振动测试<br>VIBRATION TEST                    | 电感量变化不超过10%<br>INDUCTANCE SHOULD NOT HANGE<br>MORE THAN±10%                                  | 振幅: 1.5 mm<br>频率: 10-55-10HZ / 1 MIN<br>方向: X, Y, Z<br>时间: 2 HRS/X, Y, Z  |
| 冲击测试<br>SHOCK TEST                        |  | 待测品从距离地面1米高自由跌落至3厘米后的木板上,<br>10次INDUCTORS SHOULD BE DROPPED 10 TIMES<br>FROM A HEIGHT OF 1m ONTO 3cm WOODEN<br>BOARD.   |
| 可焊性测试<br>SOLDERABILITY TEST               | 超过90%的电极被锡覆盖<br>MORE THAN 90% OF TERMINAL<br>ELECTRODE SHOULD BE COVERED<br>WITH SOLDER.     | 预热: 150℃ 120s<br>焊接温度: 255±5℃<br>时间:10s Max.<br><br>   |



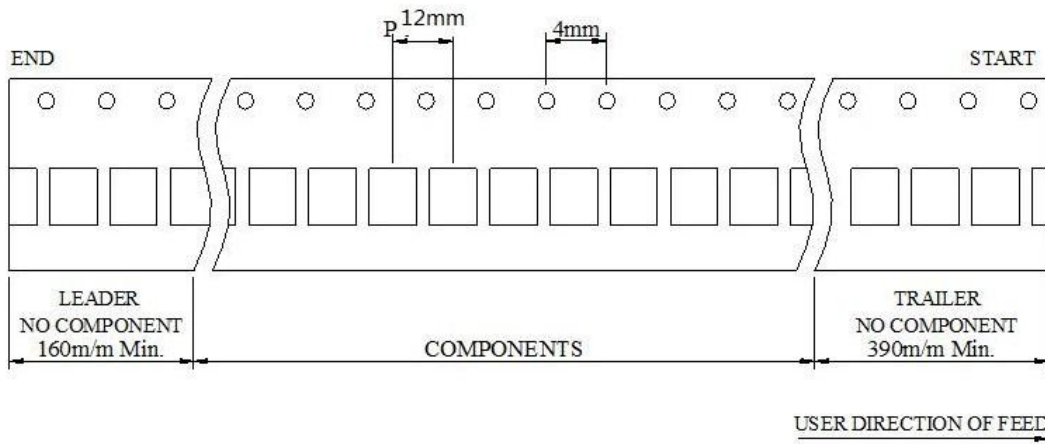
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| <b>TEST ITEMS</b>                     | <b>SPECIFICATIONS</b>  | <b>TEST CONDITIONS / TEST METHODS</b>   |
| <b>环境测试 CLIMATIC TEST</b>             |  |   |
| 温度特性<br>TEMPERATURE<br>CHARACTERISTIC | 无外观破损<br>APPEARANCE:NO DAMAGE<br><br>电感量变化不超过10%<br>INDUCTANCE:WITHIN±10% OF<br>INITIAL VALUE. | -45℃ ~ +85℃   |
| 湿度测试<br>HUMIDITY TEST                 |  | 60℃±2℃ / 96±2 小时<br>R.H:90-95%RH  |
| 低温储存<br>LOW TEMPERATURE<br>STORAGE    |  | -45℃±2℃ / 24小时<br><br>室温静置1小时后测试<br>Test at room temperature for 1 hour               |
| 冷热冲击测试<br>THERMAL SHOCK<br>TEST       |  | -45±2℃30分钟, +85±2℃ 30分钟 100次循环<br><br>静置2小时后测试<br>Test at room temperature for 1 hour |
| 高温储存<br>HIGH TEMPERATURE<br>STORAGE   |  | 85℃±2℃ / 24小时<br><br>室温静置1小时后测试<br>Test at room temperature for 1 hour                |

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**包装方式PACKAGE TYPE :**



\*CARRIER TAPE WIDTH : D



| STYLE | DIMENSIONS (m/m) |     |       |       |    |     |     |    |
|-------|------------------|-----|-------|-------|----|-----|-----|----|
|       | Q'TY (PCS)       | A   | B±0.8 | C±0.5 | D  | G+0 | N-0 | T  |
| 13    | 1,000            | 330 | 21    | 13    | 24 | 16  | 100 | 27 |