

# 深圳市索瑞达电子有限公司

# 承 认 书 SPECIFICATION FOR APPROVAL

| 客 户 名 称:<br>Customer Name : | 标 准            |  |
|-----------------------------|----------------|--|
| 客户料号:<br>Customer P/N:      |                |  |
| 产 品 名 称:<br>Product Name:   | 功率电感           |  |
| 索瑞达料号:<br>Sorede P/N:       | SNR.3010.BYD系列 |  |

| 制造      | 制造厂商            |  |  |  |  |
|---------|-----------------|--|--|--|--|
| Manufa  | cturer          |  |  |  |  |
| 拟 制     | <b>英</b> 程惠     |  |  |  |  |
| Draft   | 达电子 <i>在</i> 00 |  |  |  |  |
| 审核      | 答抗压             |  |  |  |  |
| Check I | 专用量型            |  |  |  |  |
| 日期      | 2024-09-20      |  |  |  |  |
| Date    | 2024-09-20      |  |  |  |  |

| 客户,     | 承认印章       |
|---------|------------|
| Appro   | val Signet |
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|         |            |
|         |            |
|         |            |
|         |            |
| 日期 Date |            |

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Address: 3Rd Floor, Building A6, Yuanchuangyuanlu, No. 8 Xintang Village, Fucheng Street, Guanlan Town, Shenzhen.

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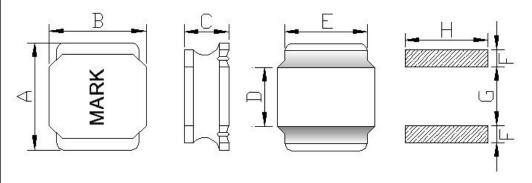
#### 修改履历表

#### **Modify Resume**

| 修改日期          | 修改明细                   | 修改后版本号      |
|---------------|------------------------|-------------|
| Date modified | Modify Details         | Version No. |
| 2021-06-08    | 文件新制订 File formulation | A           |
| 2024-09-20    | 系列感量更新                 | A1          |
|               |                        |             |
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#### 1、外形尺寸 Dimension:



单位Unit: mm

| A | 3.00±0.2 |
|---|----------|
| В | 3.00±0.2 |
| С | 1.0 Max  |
| D | 1.1Ref.  |
| Е | 2.5Typ.  |
| F | 1.0Typ.  |
| G | 1.1Ref.  |
| Н | 2.7Typ.  |

2、产品品名构成 Product Spec. Model

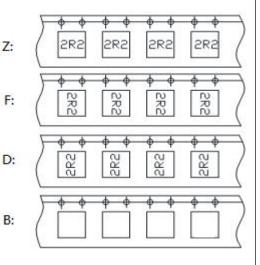
#### <u>SNR</u> <u>3010</u> <u>B</u> <u>Y</u> <u>D</u> <u>100</u> <u>M</u> <u>T</u> <u>00</u> a b c d e f g h i

- a: 系列名称Series name
- b: 产品尺寸Product dimensions (AxBxC)
- C: 形状Shape (T:12边形12-Sided、B:8边形8-Sided、S:4边形4-Sided)
- d: 密封方式Sealing way (L: 冷封Cold seal Y: 热封Heat seal)
- e: 印字方向 Lettering direction ▶
- f: 电感值Inductance Value

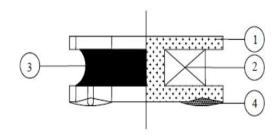
(1R0:1.0uH; 100: 10uH; 101:100uH)

- g:电感公差Inductance Tolerance (K:10%; M:20%; N:30%)
- h: 包装Package(T:磁带/卷轴Tape/Reel、B: 散装Bulk)
- i: 编号Numbering (标准standard)

#### ► Lettering direction



#### 3、结构Structure



#### 4、材料清单MATERIAL LIST

| NO. | PARTS    | MATERIAL  | UL<br>FILE NO. | TEMP.<br>CLASS |
|-----|----------|---|----------------|----------------|
| 1   | CORE     | Ni-Zn CORE OR EQUIVALENT                            | NA             | NA             |
| 2   | WIRE     | POLYURETHANE ENAMELLED COPPER<br>WIRE OR EQUIVALENT | E258243        | 180℃           |
| 3   | ADHESIVE | EPOXY RESIN OR EQUIVALENT                           | NA             | NA             |
| 4   | SOLDER   | Sn99.3-Cu0.7 OR EQUIVALENT                          | NA             | NA             |

<sup>\*</sup>NA:NOT APPLICABLE.

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#### 5、电性能参数表 Electrical Characteristics List

| 规格型号<br>Part NO.    | 电感量<br>Tolerance (µH) | 测试频率<br>Test Freq.<br>(MHz/v) | 直流电阻<br>DCR<br>±30% (Ω) | 饱和电流<br>Isat (A) | 温升电流<br>Irms (A) |
|---------------------|-----------------------|-------------------------------|-------------------------|------------------|------------------|
| SNR.3010.BYD1R0NT00 | 1.0                   | 1/1                           | 0.070                   | 2.30             | 1. 20            |
| SNR.3010.BYD1R5NT00 | 1.5                   | 1/1                           | 0.085                   | 2.10             | 1.10             |
| SNR.3010.BYD2R2MT00 | 2.2                   | 1/1                           | 0.120                   | 1.60             | 0.95             |
| SNR.3010.BYD2R7MT00 | 2.7                   | 1/1                           | 0.150                   | 1.50             | 0.85             |
| SNR.3010.BYD3R3MT00 | 3.3                   | 1/1                           | 0.160                   | 1.40             | 0.82             |
| SNR.3010.BYD4R7MT00 | 4.7                   | 1/1                           | 0.240                   | 1.15             | 0.63             |
| SNR.3010.BYD6R2MT00 | 6.2                   | 1/1                           | 0.330                   | 1.00             | 0.60             |
| SNR.3010.BYD6R8MT00 | 6.8                   | 1/1                           | 0.330                   | 1.00             | 0.60             |
| SNR.3010.BYD100MT00 | 10                    | 1/1                           | 0.430                   | 0.70             | 0.47             |
| SNR.3010.BYD120MT00 | 12                    | 1/1                           | 0.600                   | 0.65             | 0.43             |
| SNR.3010.BYD150MT00 | 15                    | 1/1                           | 0.730                   | 0.60             | 0.40             |
| SNR.3010.BYD220MT00 | 22                    | 1/1                           | 0.920                   | 0.55             | 0.32             |
| SNR.3010.BYD270MT00 | 27                    | 1/1                           | 1.200                   | 0.47             | 0.27             |
| SNR.3010.BYD330MT00 | 33                    | 1/1                           | 1.400                   | 0.43             | 0.25             |
| SNR.3010.BYD390MT00 | 39                    | 1/1                           | 1.600                   | 0.40             | 0.23             |
| SNR.3010.BYD470MT00 | 47                    | 1/1                           | 1.950                   | 0.38             | 0.20             |
| SNR.3010.BYD221MT00 | 220                   | 1/1                           | 10.69                   | 0.16             | 0.10             |
|                     |                       |                               |                         |                  |                  |
|                     |                       |                               |                         |                  |                  |
|                     |                       |                               |                         |                  |                  |

<sup>※</sup>公差Tolerance: N:±30%、M:±20%、K:±10%.

额定电流: 电感量比初始值下降30%Max或电感器表面温度上升≦ 40℃的电流值,以较小者为准(参考周围环境温度 25℃)。 The rated DC current is that which cause at 30%Max inductance reduction from the initial value or inductor surface temperature to rise by  $\leq$  40℃, whichever is smaller ( Reference ambient temperature 25℃)。

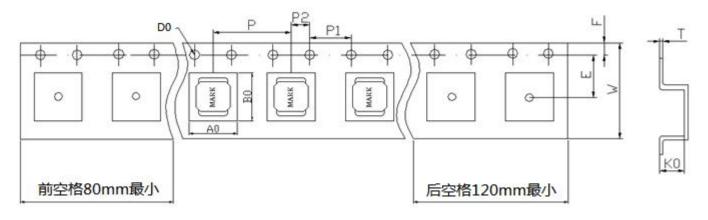
<sup>※</sup>工作温度Operating temperature rang: -40 ℃ to +125℃ (Including Self-heating)

<sup>※</sup>储存温度Storage termperature rang: -40 ℃ to +125℃

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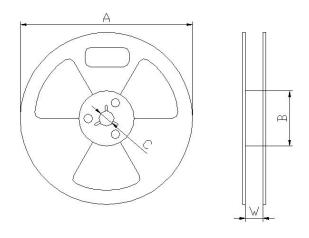
## 6、产品包装 Packaging

## 1) 载带包装示意图 Tape packing diagram



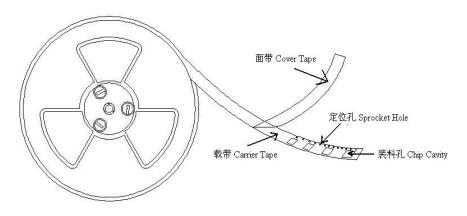
| ITEM | W    | A0   | В0   | K0   | P    | Е    | F    | D0   | P1   | P2   | Т     |
|------|------|------|------|------|------|------|------|------|------|------|-------|
| DIM  | 8.00 | 3.2  | 3.2  | 1.32 | 4.00 | 3.5  | 1.75 | 1.50 | 4.00 | 2.00 | 0.30  |
| TOLE | ±0.3 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | +0.1 | ±0.1 | ±0.1 | ±0.05 |

## 2)卷盘包装示意图 Tape packing diagram



| А | 180±0.5  |
|---|----------|
| В | 100±0.5  |
| С | 13.5±0.5 |
| W | 8.5±0.5  |

#### 3) 卷盘包装示意图 Tape packing diagram

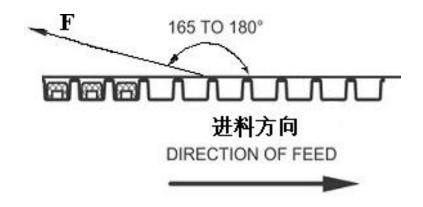


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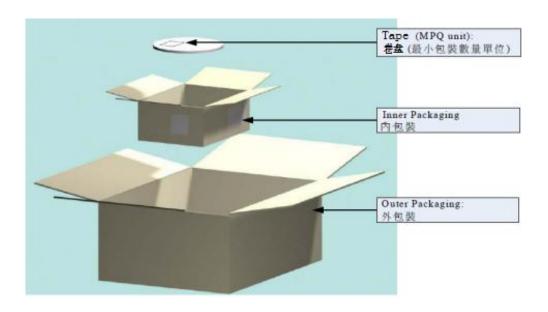
#### 4) 剥离强度要求Peeling required

①F 力大小: 20~100g;

②面带剥离角度: 165°~180°。



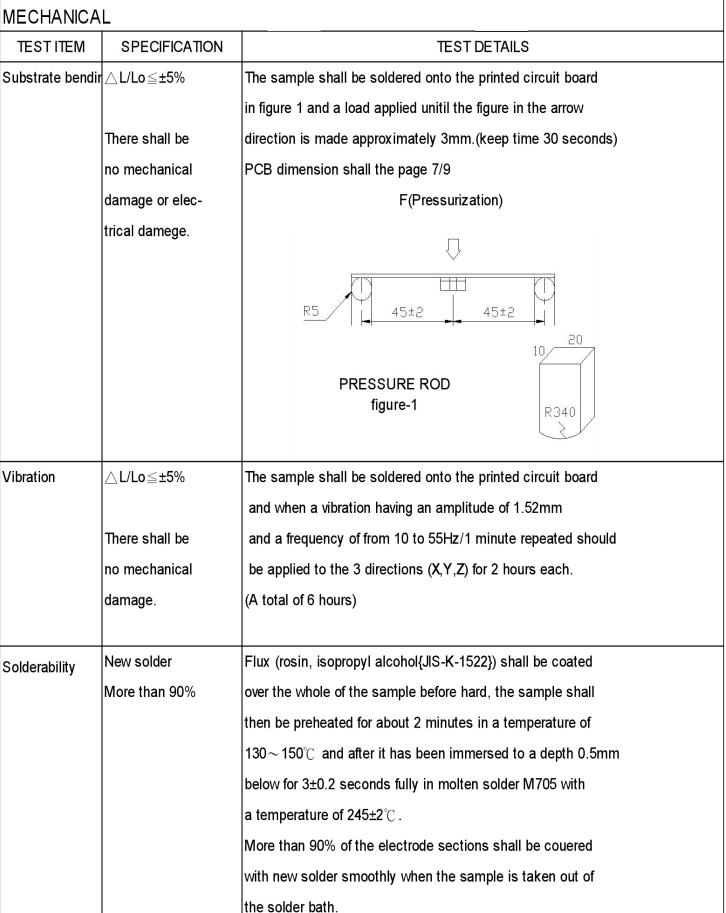
#### 5) 包装数量 Packing quantity



| 项目<br>(Project)   | 数量(PCS) | 尺寸规格(Size:mm)     |
|-------------------|---------|-------------------|
| 盘(Reel)           | 2000    | 7"                |
| 内盒<br>(Inner box) | 20K     | 185mm*185mm*120mm |
| 外箱<br>(Out box)   | 120K    | 395mm*385mm*205mm |

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|                     |             |                       |    |            |     |  |

# 7. RELIABILITY TEST METHOD MECHANICAL



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|--|--|---|---|--|-----|--|--|
| MECHANICAL   |  |   |   |  |     |  |  |
| TESTITEM   |  | SPECIF  | CATION  |  |     |  |  |
| Resistance to  | There shall be   | Temperature profile of reflow soldering   |   |  |     |  |  |
| Soldering heat   | no damage or   |   |   |  |     |  |  |
| (reflow soldering)   | problems.  | The specimen shall be production shown in the arms for 1 hour, after which the  | Pre-heating  2 min  2 min  2 min  2 stored at standar   | (Stor tempe  | the |  |  |
|  |  |   |   |  |     |  |  |
| ELECTRICAL   |  |   |   |  |     |  |  |
| ELECTRICAL<br>TEST ITEM  | SPECIFICATION  |   | TEST DETA   | AILS   |     |  |  |
|  | SPECIFICATION  There shall be no other damage or problems.   | DC 100V voltage shall be surface and the terminal The insulation resistance   | e applied across  | this sample of top   |     |  |  |
| TEST ITEM Insulation   | There shall be no other  | surface and the terminal  | e applied across<br>l.<br>e shall be more t   | this sample of top than $1 \times 10^8 \ \Omega$ .   | top |  |  |
| TEST ITEM Insulation resistance  | There shall be no other damage or problems.  | surface and the terminal  | e applied across  se shall be more to applied for 1 m   | this sample of top than $1 \times 10^8 \ \Omega$ .   | top |  |  |
| TEST ITEM Insulation resistance Dielectric                                 | There shall be no other damage or problems.  There shall be  | surface and the terminal The insulation resistanc AC 100V voltage shall b   | e applied across  se shall be more to applied for 1 m   | this sample of top than $1 \times 10^8 \ \Omega$ .   | top |  |  |
| TEST ITEM Insulation resistance Dielectric withstand                       | There shall be no other damage or problems.  There shall be no other no other damage or                  | surface and the terminal The insulation resistanc AC 100V voltage shall b   | e applied across  e shall be more to applied for 1 m of this sample   | this sample of top than $1 \times 10^8 \Omega$ .   |     |  |  |
| TEST ITEM Insulation resistance  Dielectric withstand voltage              | There shall be no other damage or problems.  There shall be no other damage or problems.                 | surface and the terminal The insulation resistanc AC 100V voltage shall be surface and the terminal                           | e applied across  e shall be more to the applied for 1 meters of this sample and after the same                   | this sample of top than $1 \times 10^8 \Omega$ .  Sinute acrosset the sample has stabilized  |     |  |  |
| TEST ITEM Insulation resistance  Dielectric withstand voltage  Temperature | There shall be no other damage or problems.  There shall be no other damage or problems.  △L/L20°C ≦±10% | surface and the terminal The insulation resistanc AC 100V voltage shall be surface and the terminal The test shall be perform | e applied across  e shall be more to the applied for 1 meters of this sample and after the same of - 40 to + 125° | this sample of top than $1 \times 10^8 \Omega$ .  In this sample of top than $1 \times 10^8 \Omega$ .  In the property of the sample has stabilized $\Omega$ , and the value |     |  |  |

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| TEST ITEM         |                |            |  | SPECIFICATION                  |                          |  |  |  |  |
|-------------------|----------------|------------|--|--------------------------------|--------------------------|--|--|--|--|
| High temperature  | △L/Lo≦±5%      | The sam    | ple sha  | all be left for 500hours in a  | an atmospere with        |  |  |  |  |
| storage           |                | a tempei   | rature o   | of 125±2℃ and a normal h       | numidity.                |  |  |  |  |
|                   | There shall be | Upon co    | Upon completion of the measurement shall be made after the     |                                |                          |  |  |  |  |
|                   | no mechanical  | sample h   | sample has been left in a normal temperature and normal        |                                |                          |  |  |  |  |
|                   | damage.        | humidity   | humidity for 1 hour.   |                                |                          |  |  |  |  |
|                   |                |            |  |                                |                          |  |  |  |  |
| Low temperature   | △L/Lo≦±5%      | The sam    | ple sha  | all be left for 500 hours in   | an atmosphere with       |  |  |  |  |
| storage           |                | a temper   | rature o   | of -40±3℃.                     |                          |  |  |  |  |
|                   | There shall be | Upon co    | mpletio  | on of the test, the measure    | ement shall be made      |  |  |  |  |
|                   | no mechanical  | after the  | sampl  | e has been left in a norma     | al temperature and       |  |  |  |  |
|                   | damage.        | normal h   | umidit   | y for 1 hour.                  |                          |  |  |  |  |
| Change of         | ∆L/Lo≦±5%      | The sam    | ple sha  | all be subject to 5 continu    | os cycles, such as shown |  |  |  |  |
| temperature       |                | in the tal | n the table 2 below and then it shall be subjected to standard |                                |                          |  |  |  |  |
|                   | There shall be | stmosph    | eric co  | onditions for 1 hour, after v  | vhich measurement        |  |  |  |  |
|                   | no other dama- | shall be   | made.  |                                |                          |  |  |  |  |
|                   | ge of problems |            |  |                                |                          |  |  |  |  |
|                   |                |            |  | tab                            | ole 2                    |  |  |  |  |
|                   |                |            |  | Temperature                    | Duration                 |  |  |  |  |
|                   |                |            | 1  | -40 <b>±</b> 3℃                | 10 min.                  |  |  |  |  |
|                   |                |            |  | (Themostat No.1)               |                          |  |  |  |  |
|                   |                |            | 2  | Standard                       | 5 sec. or less           |  |  |  |  |
|                   |                |            |  | atmospheric                    | No.1→No.2                |  |  |  |  |
|                   |                |            | 3  | 125±2℃                         | 30 min.                  |  |  |  |  |
|                   |                |            |  | (Themostat No.2)               |                          |  |  |  |  |
|                   |                |            | 4  | Standard                       | 5 sec. or less           |  |  |  |  |
|                   |                |            |  | atmospheric                    | No.2→No.1                |  |  |  |  |
| Moisuture storage | △L/Lo≦±5%      | The sam    | ple sh   | all be left for 500 hours in   | a temperature of         |  |  |  |  |
|                   |                | 40±2°C a   | and a h  | numidity(RH) of 90 $\sim$ 95%. |                          |  |  |  |  |
|                   | There shall be | Upon co    | mpletio  | on of the test, the measure    | ement shall be made      |  |  |  |  |
|                   |                |            |  | a haa haan laft in a nama      | al temperature and       |  |  |  |  |
|                   | no mechanical  | after the  | sampl  | e has been left in a norma     | artemperature and        |  |  |  |  |

The sample shall be reflow soldered onto the printed circuit board in every test.

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#### 8、注意事项 Note

①本承认书保证我司产品作为一个单体时的质量情况。当我司产品被安装到贵司产品上时,请保证 贵司的产品已根据贵司的规范进行了有效评估和确认。

This product specification guarantees the quality of our product as a single unit. Please make sure that your product is evaluated and confirmed against your specifications when our product is mounted to your product.

②如果贵司对我司产品的使用已超过了本承认书所界定的产品功能,那么对于由此引发的失效, 我司将不予保证。

We cannot warrant against failure caused by any use of our product that deviates from the intended use as described in this product specification.

- ③为了保持终端电极的焊接性,并使包装材料保持良好状态,必须控制储存区的温度和湿度。
  To maintain the solderabilty of terminal electrodes and to keep the packing material in good condition, temperature and humidity in the storage area should be controlled.
  - ※建议的条件: -10~+40℃, 30~70%RH。

Recommended conditions:  $-10 \sim +40^{\circ}$ C,  $30 \sim 70\%$ RH.

※储存超过六个月的,应在实际使用前进行焊接检验。
In case of storage over 6 months, soldrability shall be checked before actual usage.

※即使在理想的储存条件下,产品的可焊性也随着时间的推移而降低。因此,产品应从交货时算起, 建议8个月之内使用完。

Even under ideal storage conditions, the weldability of the product decreases over time. therefore, the product should be From the time of delivery, it is recommended that it be used within 8 months.

④本承认书在客户收到30天之内,必须签章返回,逾期视为默认。

The Specification Approval should be sent back to the supplier with customer's chop on it within 30 days after receiving it, or we will take it as approved by customer's automatically.

⑤如有特殊规格要求,请事前联络我司技术部人员。

In case of special specifications please contact our technical department prior staff.