

# 深圳市索瑞达电子有限公司

# 承 认 书 SPECIFICATION FOR APPROVAL

客 户 名 称: Customer Name :	标 准	
客户料号: Customer P/N:		
产 品 名 称: Product Name:	功率电感	
索瑞达料号: Sorede P/N:	SNR.4012.BYD系列	

制造厂商				
Manufa	cturer			
拟制	<b>基</b> 程惠			
Draft	端达电子有 個			
审核學	<b>华起</b> 团			
Check $\perp$	程专用管理			
日期	2024 00 24			
Date	2024-09-21			

客户,	承认印章
Appro	val Signet
日期 Date	

地址:深圳市观澜镇福城街道新塘村8号源创园陆号A6栋3楼.

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

电话 Tel: 0755-29803356 传真 Fax: 0755-29803506

电子邮件 E-mail: sorde@vip.163.com

网址 http// www.szsorede.com

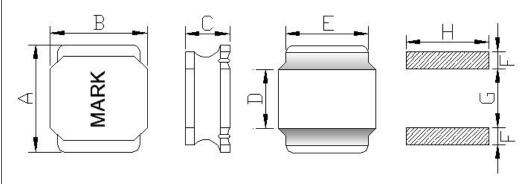
## 修改履历表

#### **Modify Resume**

	Wiodity Resume	
修改日期	修改明细	修改后版本号
Date modified	Modify Details	Version No.
2021-06-09	文件新制订 File formulation	A
2024-09-21	系列感量更新	A1
202.0921	7/1/10主人//	

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#### 1、外形尺寸 Dimension:



单位Unit: mm

A	4.00±0.2
В	4.00±0.2
С	1.2 Max
D	1.8Ref.
Е	3.3Ref
F	1.3Ref
G	1.8Ref.
Н	3.7Ref

2、产品品名构成 Product Spec. Model

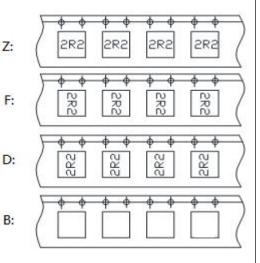
# <u>SNR 4012 B Y D 100 M T 00</u>

- 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

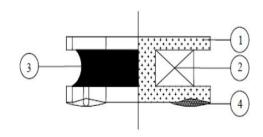
(1R0:1.0uH; 100: 10uH; 101:100uH)

- 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)

### ► Lettering direction



### 3、结构Structure



#### 4、材料清单MATERIAL LIST

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

\*NA:NOT APPLICABLE.

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

规格型号 Part NO.	电感量 Tolerance(μH)	测试频率 Test Freq. (kHz/v)	直流电阻 DCR Max (Ω)	饱和电流 Isat (A)	温升电流 Irms (A)
SNR.4012.BYDR47NT00	0.47	100/1	0.046	3.40	2.00
SNR.4012.BYDR68NT00	0.68	100/1	0.058	3.20	1.72
SNR.4012.BYD1R0NT00	1.0	100/1	0.065	2.61	1.65
SNR.4012.BYD1R5NT00	1.5	100/1	0.094	2.50	1.46
SNR.4012.BYD2R2MT00	2.2	100/1	0.105	2.10	1.32
SNR.4012.BYD3R3MT00	3.3	100/1	0.149	1.70	1.12
SNR.4012.BYD4R7MT00	4.7	100/1	0.163	1.20	1.05
SNR.4012.BYD6R8MT00	6.8	100/1	0.286	1.18	0.84
SNR.4012.BYD100MT00	10	100/1	0.442	0.95	0.77
SNR.4012.BYD120MT00	12	100/1	0.494	0.85	0.70
SNR.4012.BYD150MT00	15	100/1	0.651	0.80	0.64
SNR.4012.BYD220MT00	22	100/1	1.01	0.65	0.49
SNR.4012.BYD330MT00	33	100/1	1.28	0.55	0.42
SNR.4012.BYD470MT00	47	100/1	2.21	0.45	0.37
SNR.4012.BYD680MT00	68	100/1	2.50	0.38	0.27

<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  $\le 40$ °C, whichever is smaller ( Reference ambient temperature 25°C)。

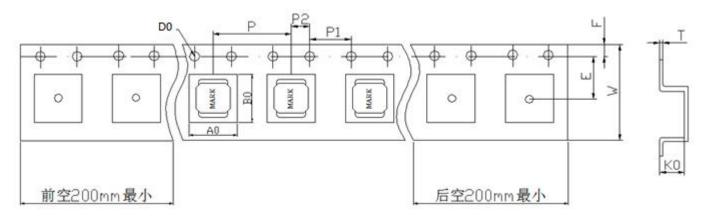
<sup>※</sup>工作温度Operating temperature rang: -40  $^{\circ}$  to +125 $^{\circ}$  (Including Self-heating)

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

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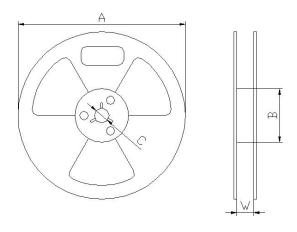
## 6、产品包装 Packaging

### 1) 载带包装示意图 Tape packing diagram



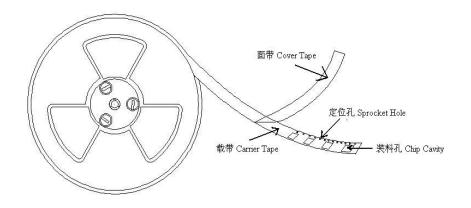
ITEM	W	A0	В0	K0	P	Е	F	D0	P1	P2	T
DIM	12.00	4.30	4.30	1.40	8.00	5.50	1.75	1.50	4.00	2.00	0.30
TOLE	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	±0.1	±0.1	±0.05

## 2)卷盘包装示意图 Tape packing diagram



Α	330±0.5
В	100±0.5
С	13.5±0.5
W	12.5±0.5

## 3) 卷盘包装示意图 Tape packing diagram

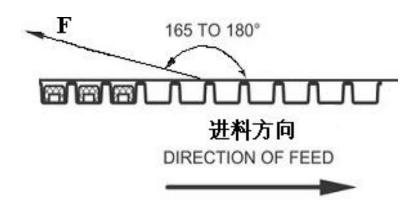


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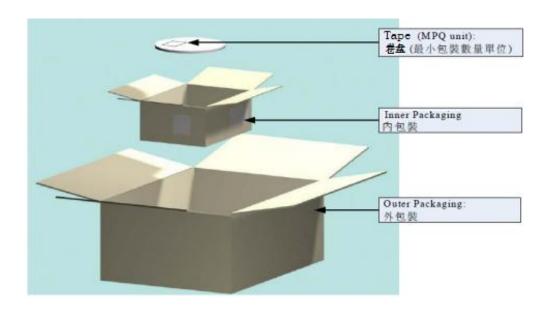
## 4) 剥离强度要求Peeling required

①F 力大小: 20~100g;

②面带剥离角度: 165°~180°。



## 5) 包装数量 Packing quantity



项目 (Project)	数量(PCS)	尺寸规格(Size:mm)
盘(Reel)	4500	13"
内盒 (Inner box)	18000	340mm*340mm*65mm
外箱 (Out box)	54000	360mm*360mm*235mm

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7. RELIABIL	ITY TEST METHOD	)						
MECHANIC	AL							
TESTITEM	SPECIFICATION		TEST DETAILS					
Substrate bend	dir △ L/Lo ≦±5%	The sam	The sample shall be soldered onto the printed circuit board					
		in figure	in figure 1 and a load applied unitil the figure in the arrow					
	There shall be	direction	direction is made approximately 3mm.(keep time 30 seconds)					
	no mechanical	PCB din	nension shall the page	e 7/9				
	damage or elec-		F(Pressurization)					
	trical damege.							
				· · · · · · · · · · · · · · · · · · ·				
			R5 45±2	45±2				
					20			
			PRESSURE I	ROD				
			figure-1 R340					
Vibration	△L/Lo≦±5%	The sam	nple shall be soldered	onto the printed o	circuit board			
		and when a vibration having an amplitude of 1.52mm						
	There shall be	and a frequency of from 10 to 55Hz/1 minute repeated should						
	no mechanical	be applied to the 3 directions (X,Y,Z) for 2 hours each.						
	damage.	(A total	(A total of 6 hours)					
Solderability	New solder	Flux (ros	sin, isopropyl alcohol{	JIS-K-1522}) shall	be coated			
	More than 90%	over the	whole of the sample	pefore hard, the sa	ample shall			
		then be preheated for about 2 minutes in a temperature of						
		130 $\sim$ 150 $^{\circ}$ and after it has been immersed to a depth 0.5mm						
		below for 3±0.2 seconds fully in molten solder M705 with						
		a tempe	a temperature of 245±2℃.					
		More tha	More than 90% of the electrode sections shall be couered					
		with new solder smoothly when the sample is taken out of						
		the sold	er bath.					

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MECHANICAL							
TESTITEM		SPECIF	ICATION				
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 attention of the specimen shall be specimen shall specimen shall be specimen shall specimen specimen shall specimen spe	Pre-heating  2 min  passed through the above profile for 1 stored at standard	(Store temper)  10 2 min. o  10 re reflow oven with the time.  I atmospheric conditions	the		
ELECTRICAL							
TESTITEM	SPECIFICATION		TEST DETA	LS			
Insulation	There shall be no other	DC 100V voltage shall b	e applied across	this sample of top			
resistance	damage or problems.	surface and the termina	l.				
		The insulation resistanc	e shall be more tl	nan 1 × 10 <sup>8</sup> Ω.			
 Dielectric	There shall be	AC 100V voltage shall b	e applied for 1 mi	nute acrosset the t	ор		
	There shall be no other	AC 100V voltage shall b	• •	nute acrosset the t	ор		
withstand		1	• •	nute acrosset the t	ор		
Dielectric withstand voltage	no other	1	• •	nute acrosset the t	ор		
withstand	no other damage or	1	l of this sample				
withstand voltage	no other damage or problems.	surface and the termina	I of this sample	ple has stabilized i			
withstand voltage Temperature	no other damage or problems.  △L/L20°C ≦±10%	surface and the termina  The test shall be perform	I of this sample  ned after the sam  of - 40 to + 125°	ple has stabilized i ,and the value			

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TEST ITEM				SPECIFICATION				
High temperature	△L/Lo≦±5%	The samp	The sample shall be left for 500hours in an atmospere with					
storage		a tempera	a temperature of 125±2℃ and a normal humidity.					
	There shall be	Upon completion of the measurement shall be made after the						
	no mechanical	sample h	as bee	en left in a normal tempera	ture and normal			
	damage.	humidity	humidity for 1 hour.					
Low temperature	△L/Lo≦±5%	The samp	ole sha	all be left for 500 hours in a	an atmosphere with			
storage		a tempera	ature c	of -40±3℃.				
	There shall be	Upon con	npletic	on of the test, the measure	ment shall be made			
	no mechanical	after the	sample	e has been left in a norma	temperature and			
	damage.	normal hu	umidity	/ for 1 hour.				
Change of	△L/Lo≦±5%	The samp	ole sha	all be subject to 5 continuo	os cycles, such as shown			
temperature		in the tab	in the table 2 below and then it shall be subjected to standard					
	There shall be	stmosphe	stmospheric conditions for 1 hour, after which measurement					
	no other dama-	shall be n	nade.					
	ge of problems							
				tab	le 2			
				Temperature	Duration			
			1	−40 <b>±3</b> °C	10 min.			
				(Themostat No.1)				
			2	Standard	5 sec. or less			
			2	Standard atmospheric	5 sec. or less No.1→No.2			
			3					
				atmospheric	No. 1→No. 2			
				atmospheric 125±2℃	No. 1→No. 2			
			3	atmospheric 125±2℃ (Themostat No.2)	No.1→No.2 30 min.			
Moisuture storage	△L/Lo≦±5%	The samp	3 4	atmospheric  125±2℃  (Themostat No.2)  Standard	No.1→No.2  30 min.  5 sec. or less  No.2→No.1			
Moisuture storage	△L/Lo≦±5%	_   `	3 4 ble sha	atmospheric  125±2°C  (Themostat No.2)  Standard  atmospheric	No.1→No.2  30 min.  5 sec. or less  No.2→No.1			
Moisuture storage	△L/Lo≦±5% There shall be	40±2°C a	3 4 Dile sha	atmospheric  125±2°C (Themostat No.2)  Standard atmospheric  all be left for 500 hours in a	No.1→No.2  30 min.  5 sec. or less  No.2→No.1  a temperature of			
Moisuture storage		40±2°C a	3  4  Dile sha	atmospheric  125±2℃ (Themostat No.2)  Standard atmospheric  all be left for 500 hours in a umidity (RH) of 90~95%.	No.1→No.2  30 min.  5 sec. or less  No.2→No.1  a temperature of  ement shall be made			

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