

零件承认书

SPECIFICATION FOR APPROVAL

客户名称: 0001

规格描述: ZYNR4020磁胶电感规格书

日期: 2023/10/10

增益签核:

制订	审核	核准
夏琳	陈雨	李万

客户签核:

工程	审核	核准



东莞市增益实业有限公司

地址: 东莞市塘厦镇林村塘厦大道北552号

电话: 0769-87321000

传真: 0769-87891229

物料类型:

磁胶电感

日期:

2023/10/10

版本:

A



◆特征:

- 磁性胶水涂敷结构极大减少了蜂鸣声
- 大电流低直流阻抗
- 直接在磁芯上金属化电极,抗跌落冲击强
经久耐用
- 闭合磁路结构设计,漏磁少,抗 EMI 能力强
- 省空间,更省电
- 符合 RoHS,无卤和 REACH

◆用途:

- 广泛应用于 LED 背光板、平板电视、
蓝光 DVD 机顶盒、笔记本电脑、台式电脑、
服务器、显卡、便携式游戏机、个人导航系统、
多媒体、汽车产品、通信设备、直流转换。

◆环境:

- 工作温度: -40°C 至 $+125^{\circ}\text{C}$
(包括线圈自身温升)

◆试验设备:

- 电感值: HP4284A, HP4285A 或同等仪器
- 电流: HP4284+42841A
- 直流电阻: Chroma 16502 或同等仪器

◆产品型号:

Features:

- Magnetic-resin shielded construction reduces buzz
Noise to ultra-low levels
- Large Current and Low DCR
- Metallization on Ferrite Core results in excellent shock
Resistance and damage-free durability
- Closed magnetic circuit design reduces leakage
Flux and Electro Magnetic Interference (EMI)
- Takes up less PCB real estate and save more power
Small parasitic capacitance
- RoHS, Halogen Free and REACH Compliance

Applications:

- LED backlight、Flat-screen TVs, blue-ray disc
Set top box、Notebooks, desktop computers, servers,
Graphic cards、Portable gaming devices, personal
Navigation systems, personal multimedia devices,
Automotive systems Telecomm base station、DC-DC
Converter

Environmental Data:

- Operating Temperature: -40°C to $+125^{\circ}\text{C}$
(Including coils self-temperature rise)

Test Equipment:

- L: HP4284A or HP4285A LCR meter or equivalent
- Isat & Irms: HP4284+42841A
- DCR: Chroma 16502 or equivalent

Product Identification:

ZYNR

①

8040

②

100

③

M

④

①

类型 Type	
ZYNR	闭磁路贴片磁胶电感 Shielded SMT Power Inductors 

②

外形尺寸(L×W×H) (mm) External Dimensions (L×W×H) (mm)	
8040	8.0×8.0×4.2

③

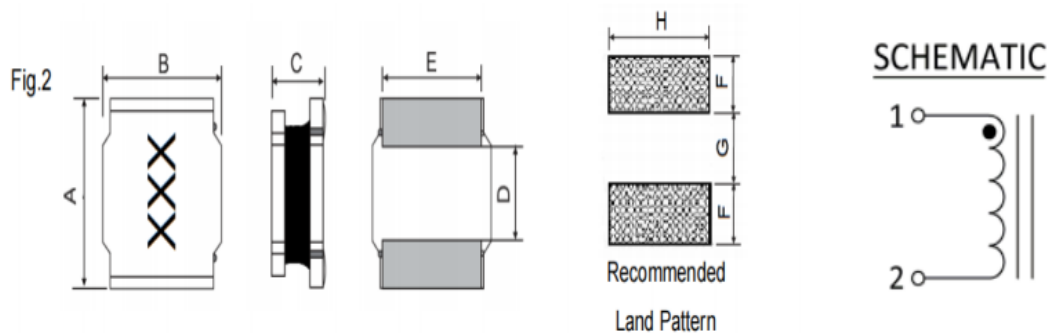
Inductance
10 uH

④

公差 Inductance Tolerance
K: $\pm 10\%$, M: $\pm 20\%$, N: $\pm 30\%$

◆外观尺寸:

Shape and Dimensions(dimensions are in mm):



Part No	ITEM								
	Shap	A	B	C	D	E	F	G	H
ZYNR4020	Fig.2	4.0±0.3	4.0±0.3	2.0 Max	2.1±0.2	3.3±0.2	1.1 Typ	1.9 Typ	3.7 Typ



■ ZYNR4020 Series

Part Number	Inductance (uH) @100KHz	DC Resistance (Ω)		额定电流 Current (A)	饱和电流 Current (A)
		Typ.	Max.		
ZYNR4020-R22□	0.22	0.013	0.017	5.00	12.40
ZYNR4020-R33□	0.33	0.013	0.016	3.30	7.50
ZYNR4020-R47□	0.47	0.022	0.029	3.30	7.00
ZYNR4020-R68□	0.68	0.028	0.036	2.80	6.40
ZYNR4020-1R0□	1.00	0.029	0.038	2.15	4.78
ZYNR4020-1R2□	1.20	0.029	0.038	2.15	5.10
ZYNR4020-1R5□	1.50	0.035	0.046	1.98	4.45
ZYNR4020-2R2□	2.20	0.040	0.052	1.85	3.40
ZYNR4020-2R7□	2.70	0.053	0.069	1.55	2.55
ZYNR4020-3R3□	3.30	0.070	0.091	1.40	3.20
ZYNR4020-4R7□	4.70	0.075	0.098	1.34	2.35
ZYNR4020-5R1□	5.10	0.085	0.111	1.27	2.30
ZYNR4020-5R6□	5.60	0.090	0.117	1.22	2.20
ZYNR4020-6R2□	6.20	0.115	0.150	1.08	2.15
ZYNR4020-6R8□	6.80	0.125	0.163	1.04	2.20
ZYNR4020-8R2□	8.20	0.125	0.163	1.04	1.75
ZYNR4020-100□	10.0	0.165	0.215	0.90	1.60
ZYNR4020-120□	12.0	0.175	0.228	0.88	1.50
ZYNR4020-150□	15.0	0.230	0.299	0.77	1.35
ZYNR4020-220□	22.0	0.350	0.455	0.62	1.05
ZYNR4020-270□	27.0	0.545	0.709	0.50	1.02
ZYNR4020-330□	33.0	0.550	0.715	0.49	0.85
ZYNR4020-390□	39.0	0.650	0.845	0.46	0.82



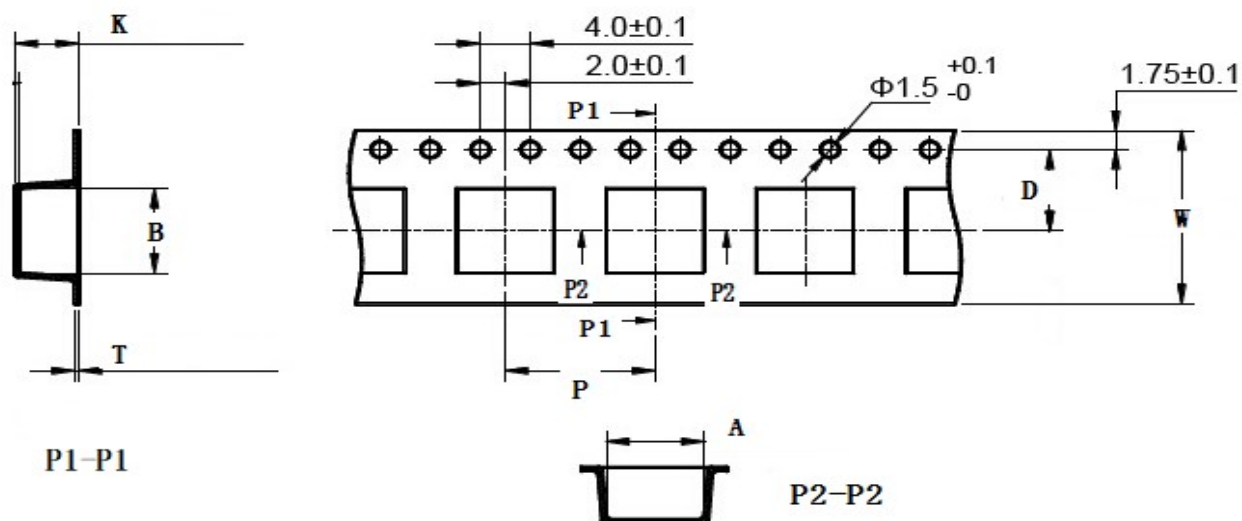
■ ZYNR4020 Series

Part Number	Inductance (uH) @100KHz	DC Resistance (Ω)		额定电流 Current (A)	饱和电流 Current (A)
		Typ.	Max.		
ZYNR4020-430□	43.0	0.660	0.858	0.45	0.77
ZYNR4020-470□	47.0	0.710	0.923	0.44	0.74
ZYNR4020-510□	51.0	0.750	0.975	0.42	0.70
ZYNR4020-560□	56.0	0.800	1.040	0.41	0.66
ZYNR4020-620□	62.0	0.900	1.170	0.39	0.65
ZYNR4020-680□	68.0	1.060	1.380	0.36	0.61
ZYNR4020-820□	82.0	1.170	1.520	0.34	0.50
ZYNR4020-101□	100	1.550	2.020	0.31	0.48
ZYNR4020-221□	220	4.200	5.460	0.30	0.30

- ※ The saturation current value is the DC current value having inductance decrease down to 30%.(at 20℃)
- ※ The temperature rise current value is the DC current value having temperature increase up to 40℃. (at 20℃)
- ※ The rated current is the DC current value that satisfies both of current value saturation current value and temperature rise current value.

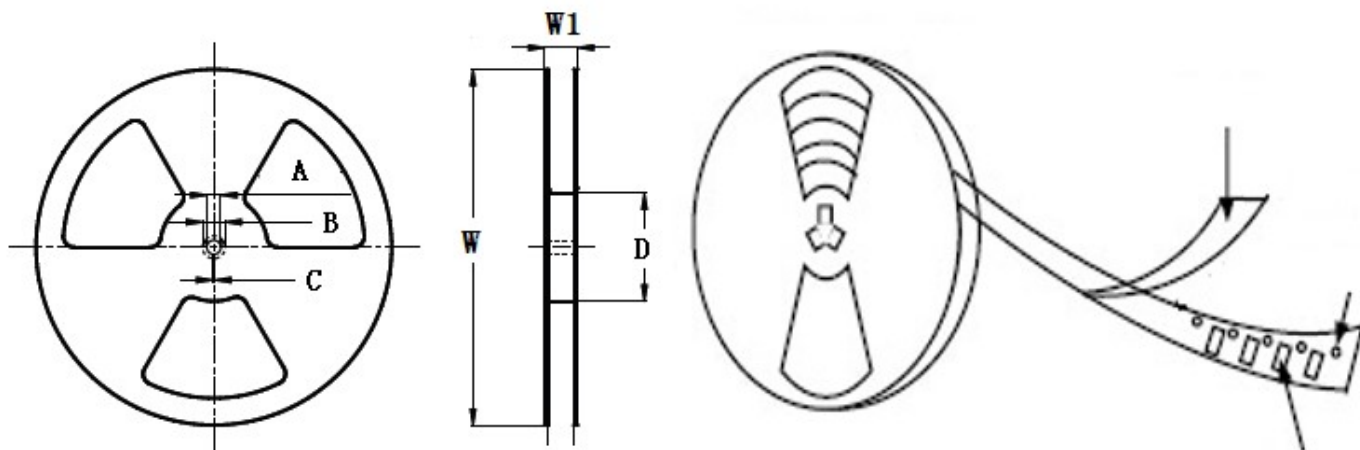


■ Taping Dimensions(Unit:mm)



TYPE	Chip Thickness	W	A	B	D	P	K Max	T Max	MPQ
ZYNR4020	2.00	12.0	4.30	4.30	5.50	8.00	2.40	0.40	3000

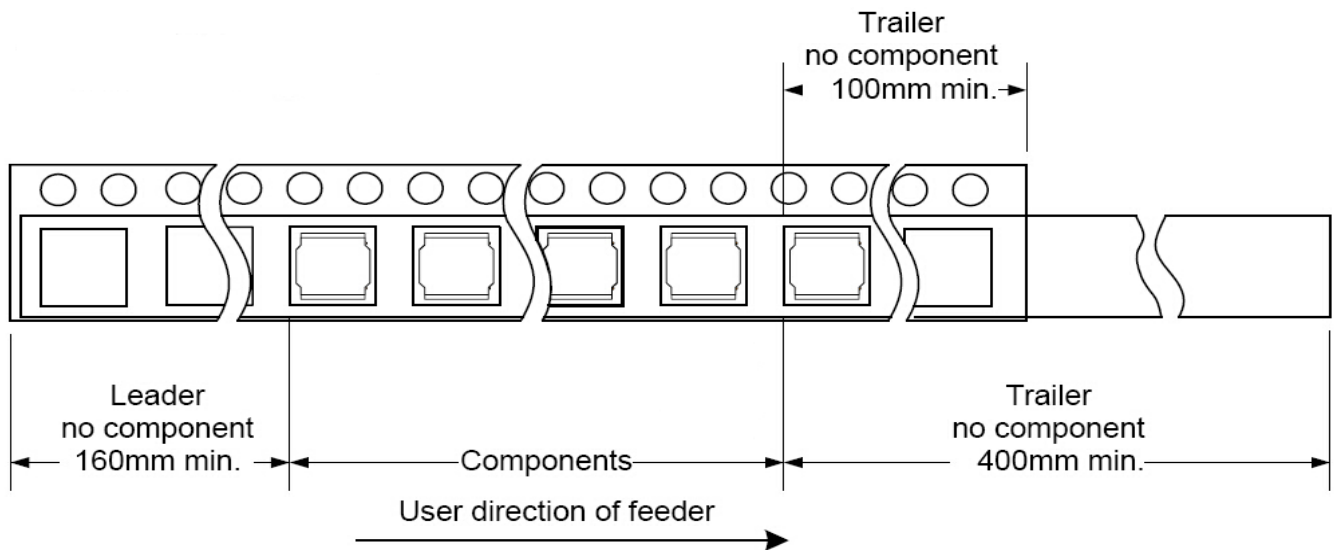
■ Reel Dimensions(Unit:mm)



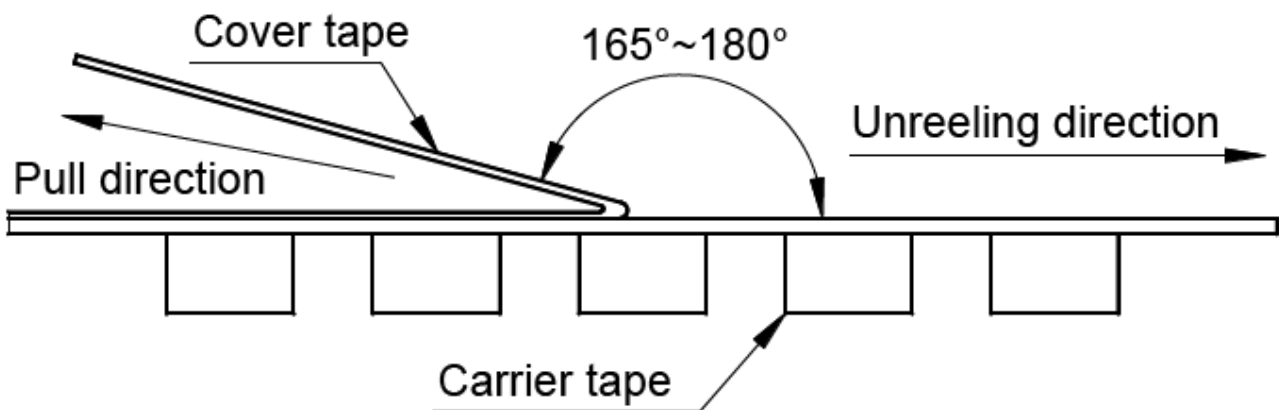
TYPE	W	W1	A	B	C	D
ZYNR4020	330 ± 2.0	12.8 ± 1.50	13.0 ± 0.50	21.0 ± 0.80	2.0 ± 0.50	100 Min



■ Direction of rolling



■ Cover tape peel off condition



Cover tape peel force shall be 0.1N to 1.3N.

Reference peel speed 300 ± 10 mm/min.

使用注意事项

REMINDERS FOR USING THESE PRODUCTS



- 保存时间为12 个月以内，保存条件（温度5~40°C以下、湿度35 ~ 66%RH 以下），需充分注意。
若超过保存时间，端子电极的可焊性将可能老化。

The storage period is within 12 months. Be sure to follow the storage conditions (temperature: 5~40°C, humidity: 35 to 65% RH or less). If the storage period elapses, the soldering of the terminal electrodes may deteriorate.

- 请勿在气体腐蚀环境（盐、酸、碱等）下使用和保存。

Do not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, etc.).

- 手上的油脂会导致可焊性降低，应避免用手直接接触端子。

Don't touch electrodes directly with bare hands as oil secretions may inhibit soldering. Always ensure optimum conditions for soldering.

- 请小心轻拿轻放,避免由于产品的跌落或取出不当而导致的损坏。

Please always handle products carefully to prevent any damage caused by dropping down or inappropriate removing.

- 端子过度弯曲会导致断线,请不要过度弯曲端子。

Don't bend the terminals with excessive stress in case of any wire fracture.

- 不要清洗产品，如需要清洗时请联系我司。

Don't rinse coils by yourself and please contact ZE if necessary.

- 请勿将本产品靠近磁铁或带有磁力的物体

Don't expose the products to magnets or magnetic fields

- 在实施焊接前，请务必进行预热。预热温度与焊接温度及芯片温度的温度差要在150°C 以内。

Before soldering, be sure to preheat components. The preheating temperature should be set so that the temperature difference between the solder temperature and chip temperature does not exceed 150°C.

- 安装后的焊接修正应在规格书规定的条件范围内。若加热过度可能导致短路、性能降低、寿命减少。

Soldering corrections after mounting should be within the range of the conditions determined in the specifications. If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.

- 装置会因通电而自我发热（温度上升），因此在热设计方面需留有充分余地。

Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.

- 非磁屏蔽型在基板设计时需注意配置线圈，受到电磁干扰可能会导致误动作。

Carefully lay out the coil for the circuit board design of the non-magnetic shield type. A malfunction may occur due to magnetic interference.

- 当本公司产品使用在一般电子设备以外的场合,如:车载,医疗设备,军用,航空航天等,请务必联系本公司营业部门,如超出本公司产品使用条件而引起的机器故障时,本公司概不负责。

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