

零件承认书

SPECIFICATION FOR APPROVAL

客户名称: 0001

规格描述: ZYNR5040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

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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 systemsTelecomm 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

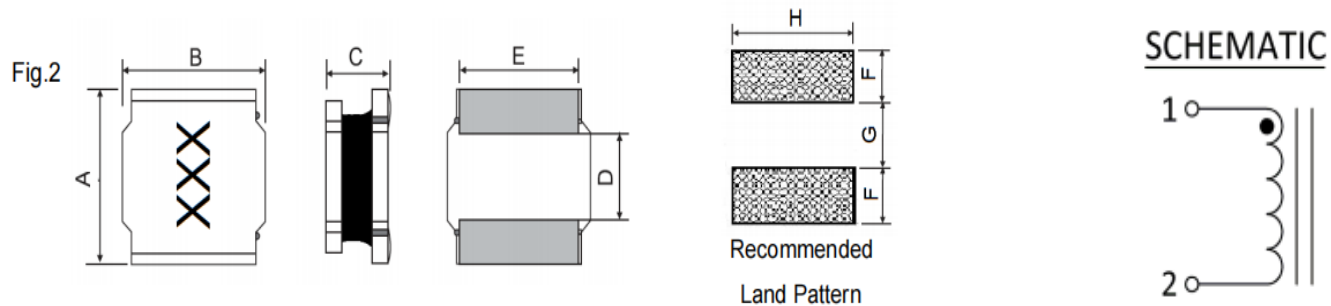
Inductance
10 uH

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
ZYNR5040	Fig.2	5.0±0.3	5.0±0.3	4.0 Max	2.5±0.2	4.0±0.2	1.4 Typ	2.3 Typ	4.2 Typ



■ ZYNR5040 Series

Part Number	Inductance (uH) @100KHz	DC Resistance (Ω)		额定电流	饱和电流
		Typ.	Max.	Current (A)	Current (A)
ZYNR5040-R22□	0.22	0.006	0.008	6.500	18.000
ZYNR5040-R24□	0.24	0.006	0.008	6.400	15.700
ZYNR5040-R47□	0.47	0.007	0.009	6.600	10.000
ZYNR5040-1R0□	1.00	0.012	0.016	4.900	7.350
ZYNR5040-1R5□	1.50	0.015	0.020	4.300	6.300
ZYNR5040-1R8□	1.80	0.016	0.021	4.150	5.500
ZYNR5040-2R2□	2.20	0.019	0.025	3.800	4.900
ZYNR5040-2R7□	2.70	0.022	0.029	3.600	4.300
ZYNR5040-3R0□	3.00	0.022	0.029	3.600	4.150
ZYNR5040-3R3□	3.30	0.024	0.031	3.400	3.950
ZYNR5040-3R6□	3.60	0.026	0.034	3.300	3.800
ZYNR5040-3R9□	3.90	0.027	0.035	3.200	3.550
ZYNR5040-4R7□	4.70	0.030	0.039	3.000	3.500
ZYNR5040-5R6□	5.60	0.035	0.046	2.800	3.000
ZYNR5040-6R8□	6.80	0.043	0.056	2.500	2.900
ZYNR5040-8R2□	8.20	0.048	0.062	2.300	2.700
ZYNR5040-100□	10.0	0.064	0.083	2.100	2.350
ZYNR5040-120□	12.0	0.077	0.100	2.000	2.200
ZYNR5040-150□	15.0	0.086	0.112	2.000	2.000
ZYNR5040-180□	18.0	0.119	0.155	1.450	1.700
ZYNR5040-220□	22.0	0.129	0.168	1.500	1.600
ZYNR5040-270□	27.0	0.188	0.244	1.100	1.520
ZYNR5040-330□	33.0	0.188	0.244	1.200	1.300
ZYNR5040-470□	47.0	0.272	0.354	1.000	1.100



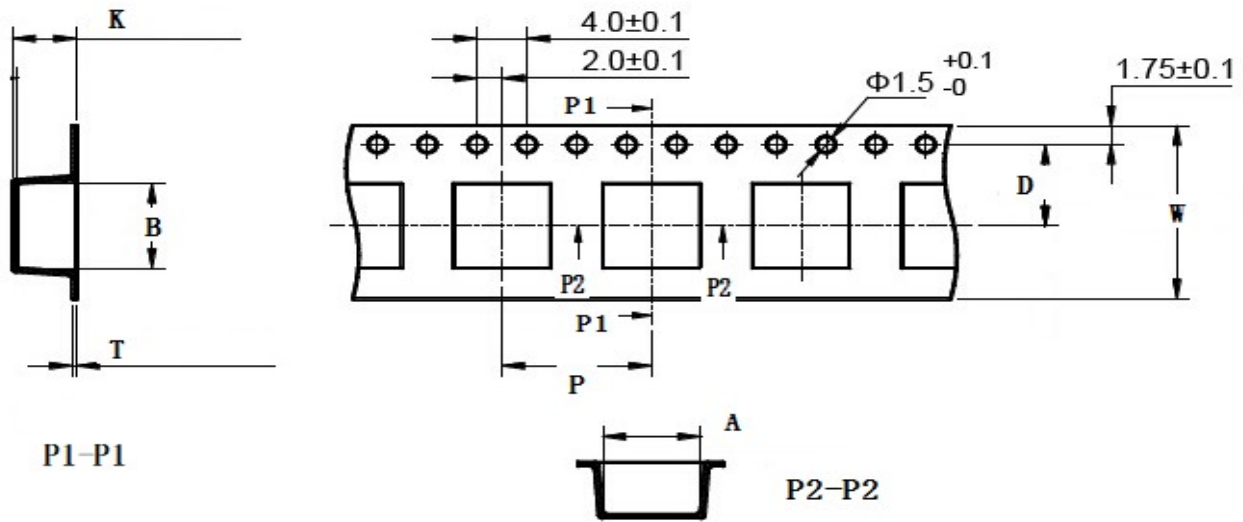
■ ZYNR5040 Series

Part Number	Inductance (uH) @100KHz	DC Resistance (Ω)		额定电流	饱和电流
		Typ.	Max.	Current (A)	Current (A)
ZYNR5040-510□	51.0	0.380	0.494	1.000	1.000
ZYNR5040-560□	56.0	0.380	0.494	0.800	1.050
ZYNR5040-680□	68.0	0.400	0.520	0.800	0.900
ZYNR5040-750□	75.0	0.450	0.585	0.720	0.850
ZYNR5040-101□	100	0.560	0.728	0.700	0.750
ZYNR5040-151□	150	0.750	0.975	0.600	0.650
ZYNR5040-221□	220	1.400	1.820	0.400	0.480
ZYNR5040-331□	330	2.100	2.730	0.400	0.420
ZYNR5040-471□	470	3.000	3.900	0.350	0.370
ZYNR5040-561□	560	3.780	4.920	0.310	0.310
ZYNR5040-681□	680	3.900	5.070	0.25	0.300
ZYNR5040-102□	1000	6.000	7.800	0.200	0.210
ZYNR5040-152□	1500	8.140	10.582	0.190	0.200
ZYNR5040-202□	2000	12.300	14.760	0.140	0.170
ZYNR5040-282□	2800	19.000	24.700	0.105	0.150
ZYNR5040-332□	3300	21.000	25.200	0.100	0.140
ZYNR5040-392□	3900	23.500	30.550	0.100	0.125
ZYNR5040-472□	4700	35.000	45.500	0.080	0.110
ZYNR5040-562□	5600	39.000	50.70	0.080	0.105
ZYNR5040-682□	6800	43.000	55.900	0.075	0.090
ZYNR5040-822□	8200	43.000	55.900	0.075	0.070
ZYNR5040-103□	10000	45.000	58.500	0.075	0.065

- ※ 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.

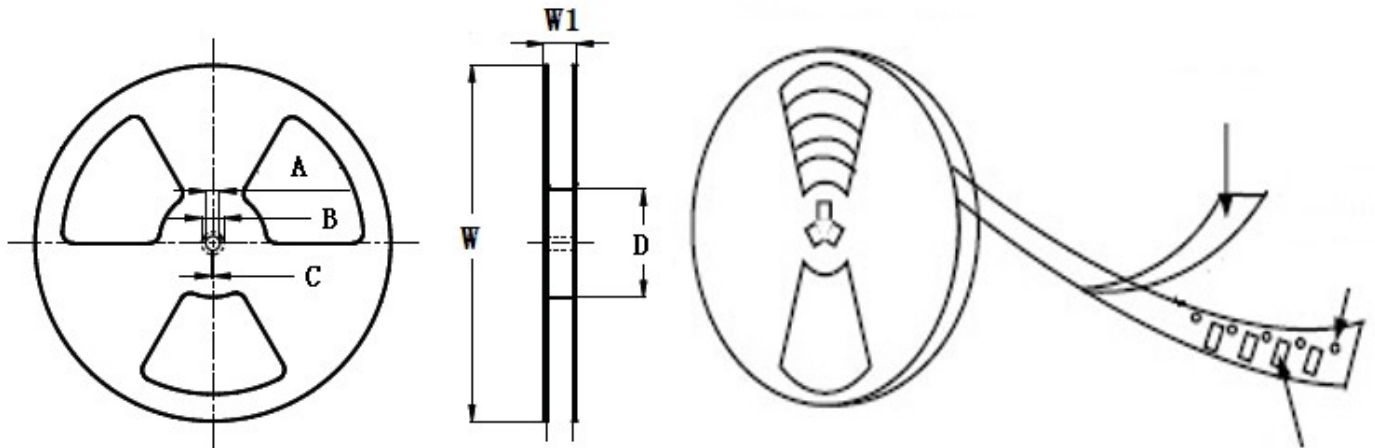


■ Taping Dimensions(Unit:mm)



TYPE	Chip Thickness	W	A	B	D	P	K Max	T Max	MPQ
ZYNR5040	4.00	12.0	5.30	5.30	5.50	8.00	4.20	0.40	1500

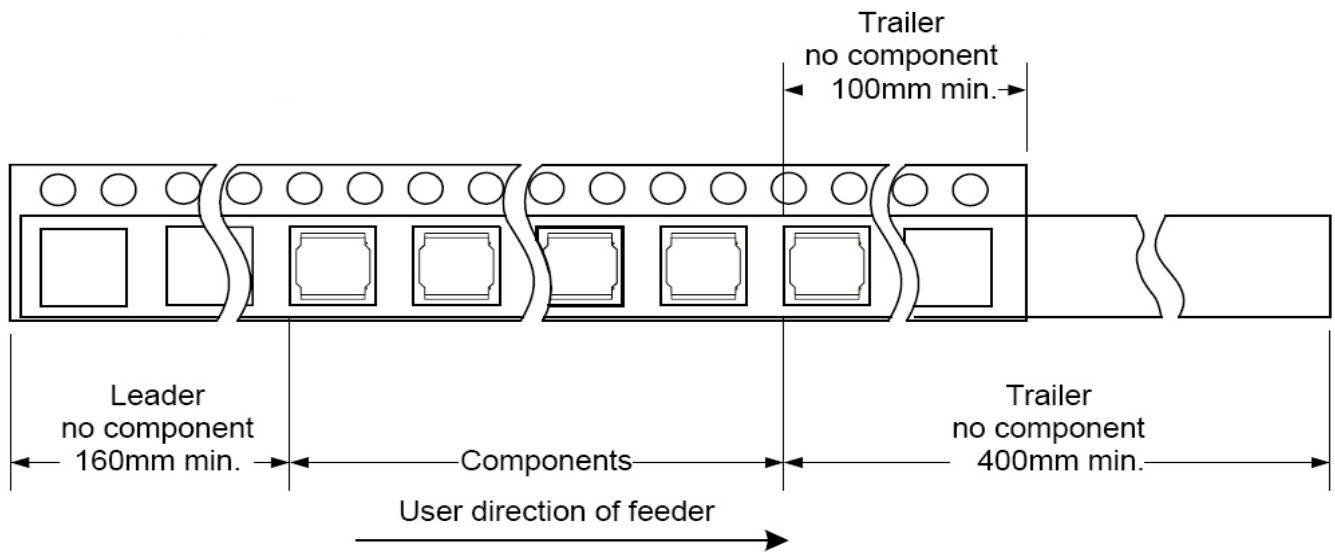
■ Reel Dimensions(Unit:mm)



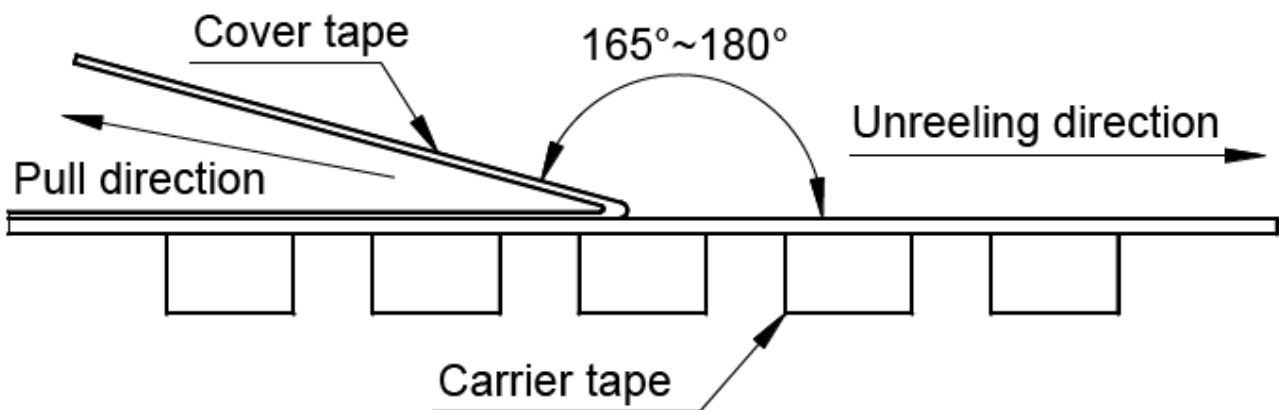
TYPE	W	W1	A	B	C	D
ZYNR5040	330±2.0	12.8±1.50	13.0±0.50	21.0±0.80	2.0±0.50	100 Min



■ 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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