



深圳市豫之鑫科技集团股份有限公司

Shenzhen Yuzhixin Technology Group Co., Ltd

承认书

APPROVAL SHEET

客户

(Client)

品名

(Description)

一体成型电感

型号

(YZX P/N)

YZXTYH404030-4.7uH/M

版本

(Rev. NO)

A/0

承认书编号

(Admission number)

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确认签核 (Supplier Approved)		
APPROVEDBY	CHECKEDBY	PREPARED BY
YuanHongJuan	YuanYang	ZhaoWeiJun

客户承认栏 (请签名盖章并签署日期后回传)		
Customer's Approval Chop	Approved By	Approved Date
客户承认盖章	承认人	承认日期

目录 Catalogue

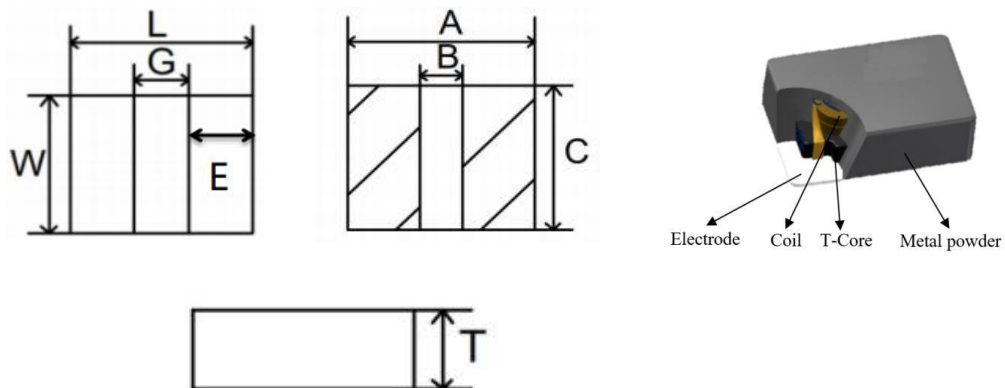
- 封面 Cover
- 变更履历 Change resume
- 外形尺寸及推荐焊盘 External Dimensions & PCB Pattern
- 器件原理图 Device schematic diagram
- 内部结构剖面图 Internal structure profile
- 物料清单 Material List
- 电气特性 Electrical Characteristic
 - 产品工作温度范围与储存温度 Product operating temperature range and storage temperature
 - 回流焊曲线图 Reflow diagram
 - 可靠性测试 reliability testing
- 电气特性测试报告 Electrical characteristics test report
- 包装信息 Packaging Information
- 产品声明 Legal Disclaimer Notice

变更履历 Change resume

序号	变更内容说明	版本	修改人	日期	备注
1	新制定	A/0		2024/5/17	
2					
3					
4					
5					
6					
7					
8					
9					
10					

 	Part NO	DESCRIPTION	DATE	Pagination
	YZXTYH404030-4.7uH/M	一体成型电感	2024/5/17	1/6

一. 外观图/DIMENSION (单位/UNIT: mm)



型号 Size	L	G	W	E	T	A	B	C
404030 系列	4.1 ±0.2	1.3 ±0.2	4.1 ±0.2	1.4 ±0.2	3.0 Max	4.1 Ref.	1.1 Ref.	4.1 Ref.

二. 电气特性/ELECTRICAL CHARACTERISTIC

型号规格Part NO.	L0(μH) @0A 1MHz	直流电阻 Rdc(mΩ)		额定电流 Irms(A)		饱和电流 Isat(A)	
		Typ	Max	Typ	Max	Typ	Max
YZXTH404030- 4.7uH/M	4.7±20%	41.0	46.0	4.3	4.0	7.0	6.0

电气特性 Electrical Characteristic:

a、测试条件: 所有测试均在室温 25±2℃ 环境中进行。

Test conditions: All tests were conducted at room temperature 25±2℃

b、额定电流: 在室温 25℃ 环境下, 加载该电流后, 产品表面温度上升约 40℃ (不超过 40℃)。Rated current: At room temperature 25℃, after loading the current, the surface temperature of the product rises by about 40℃ (no more than 40℃).

c、饱和电流: 在室温 25℃ 环境下, 加载该电流后, 电感值下降至初始电感值70% (不低于 70%)。Saturation current: At room temperature 25℃, after loading the current, the inductance value drops to 70% of the initial inductance value (no less than 70%).

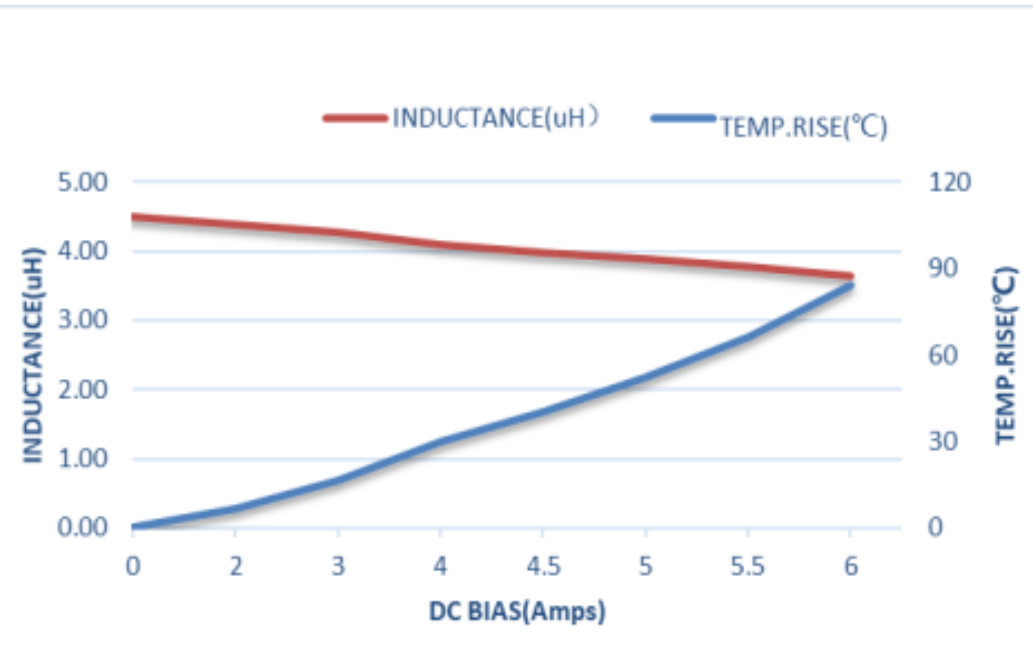
d、工作温度范围: -55℃ ~ +165℃ (包含产品表面温升)。

Operating temperature range: -55℃ ~ +165℃ (including product surface temperature rise).

e、在极端使用环境, 产品能承受的最高温度 (包含产品表面温升) 不超过 165℃, 电路设计、元件放置、PCB尺寸和厚度、散热装置及工作频率均会影响产品温度, 请用户在应用中验证产品实际温度。

In the extreme use environment, the highest temperature that the product can withstand (including product surface temperature rise) does not exceed 165℃. Circuit design, component placement, PCB size and thickness, heat dissipation device and operating frequency will affect the product temperature, please verify the actual temperature of the product in the application.

三. 性能曲线/Performance Graphs



四. 可靠性试验项目 Reliability Testing Items

测试项目 Test Items	规格要求 Specifications	测试条件/测试方法 Test Conditions / Test Methods
耐低温 Low temperature resistance	无可见机械损伤。 电感量变化不超过10%。 No mechanical	- 55°C ± 2°C / 1000h 室温静置1小时后测试。 Test at room temperature for 1 hour.
温度冲击 Temperature shock	无可见机械损伤。 电感量变化不超过10%。 No mechanical damage.	温度: - 55°C, 30 ± 3 分钟 + 165°C, 30 ± 3 分钟 循环次数: 1000 Temperature: - 55°C for 30 ± 3min + 165°C for 30 ± 3min Number of cycles: 1000
恒定湿热 Static humidity	无可见机械损伤。 电感量变化不超过10%。 No mechanical damage. Inductance should not change more than ±10%.	湿度: 85% RH 温度: 85°C ± 2°C 测试时间: 1000 ± 2 h Humidity: 85% RH Temperature: 85°C ± 2°C Testing time: 1000 ± 2h

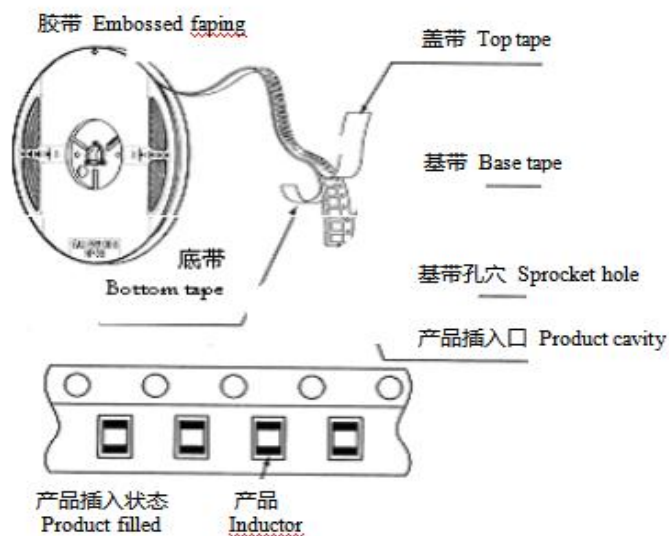
四. 可靠性试验项目 Reliability Testing Items

测试项目 TEST ITEMS	规格要求 SPECIFICATIONS	测试条件/测试方法 TEST CONDITIONS/TEST METHODS
(1) 电气特性测试 ELECTRICAL PERFORMANCE TEST		
电感量 (L)		Microtest 6377
直流电阻 (Rdc)	参照特性参数表。Refer to standard electrical characteristic list.	TH 2511
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°C。Applied the current to coils the inductance change should not be less than 30% to initial value and temperature rise should not be 40°C typical
温升测试 Temperature rise test	温升不超过40°C。The temperature rise does not exceed 40°C.	加载额定电流, 保持4小时。Applied the rated current for 4 hours.
过载测试 Overload test	没有明显的电气损坏。No evidence of electrical damage.	加载1.5倍额定电流, 保持5分钟。Applied 1.5 times of rated current for a period of 5 minutes.
(2) 机械特性测试 Mechanical performance test		
可焊性测试 Solder ability test	至少95%端电极表面被焊锡覆盖。At least 95% of terminal electrode should be covered with solder.	预热温度: 150°C 预热时间: 120s 焊锡温度: 255°C ± 5°C 浸锡时间: 10s Max Preheating temperature: 150°C Preheating time: 120s Solder temperature: 255 ± 5°C Duration: 10s Max
耐焊性 Resistance to soldering to soldering	至少95%的焊锡覆盖在电极表面。无可见机械损伤。电感量变化不超过10%。At least 95% of terminal electrode should be covered with solder.	参照回流焊曲线过3次。Repeat the reflow curve twice.

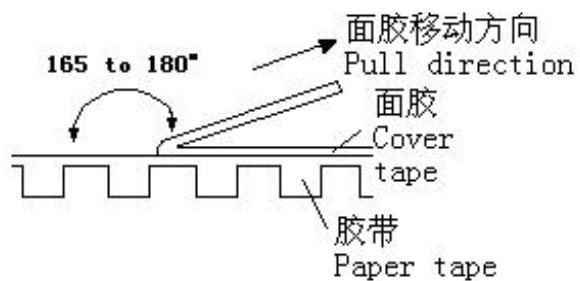
四. 可靠性试验项目 Reliability Testing Items

测试项目 TEST ITEMS	规格要求 SPECIFICATIONS	测试条件/测试方法 TEST CONDITIONS/TEST METHODS
(1) 电气特性测试 ELECTRICAL PERFORMANCE TEST		
振动测试 Vibration test		振幅: 1.5mm 测试时间: 沿三个垂直方向各做2小时 频率范围: 10Hz~55Hz~10Hz (1分钟) Amplitude modulation: 1.5mm Test time: A period of 2h in each of 3 mutually perpendicular directions. Frequency range: 10Hz to 55Hz to 10Hz for 1min.
冲击测试 Shock test	无可见机械损伤。电感量变化不超过10%	持续时间: 6ms 峰值加速度: 100g 方向: ±X ±Y ±Z (6个方向)
端电极强度 Adhesion of electrode	无可见机械损伤。Inductance should not change more than ±10%.	施加一个17.7N (1.8kg) 的力到测试器件的侧面, 施加时间为60 ± 1秒。 A 17.7N(1.8kg) force is applied to the side of the inductance for 60(±1)s.
板弯曲测试 Circuit board bending test		施加使线路板弯曲至少 (D) x = 2mm 的力, 施加外力的持续时间应为60 (±5) 秒。 Apply a force to bend the circuit board at least (D)x=2mm, and the duration of the applied force should be 60(±5)s.
(3) 环境测试 CLIMATIC TEST		
工作温度范围 Operating temperature range	- 55°C ~ + 165°C	包含产品表面温升。 Includes product surface temperature rise.
耐高温 High temperature resistance	无可见机械损伤。电感量变化不超过10%。 No mechanical damage. Inductance should not change more than ±10%	+ 165°C ± 2°C / 1000h 室温静置1小时后测试。 Test at room temperature for 1 hour.

五. 产品包装 Packaging



(1) 编带图 Taping Drawings

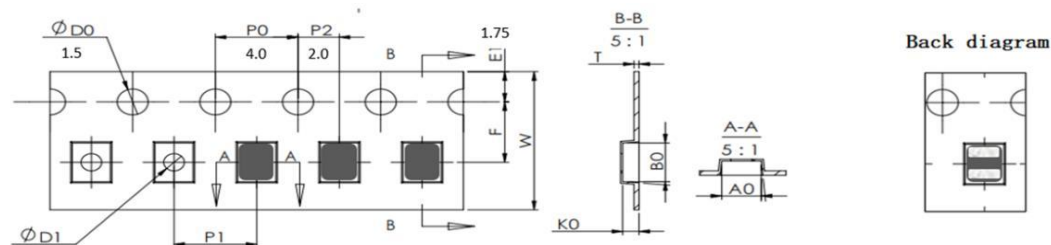


a. 盖带的剥离力：沿面胶移动方向拉时要求剥离力为 20g~150g。

Peeling force should be 20~150g pulling in the direction of arrow.

b. 在胶带剥落时，面胶不能有破损。

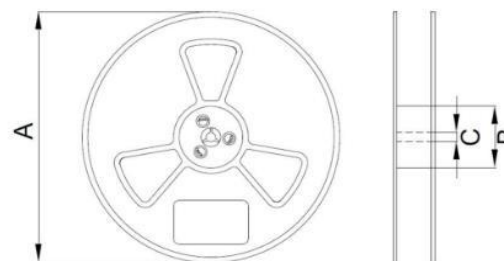
The cover bond should not be damaged when it peeled off.



(2) 卷盘尺寸 Reel Dimensions

mm

尺寸 Size	W	A0	B0	D1	F	K0	P1	T
404030系列	12.0 ±0.1	4.4 ±0.1	4.4 ±0.1	1.5 ±0.2	5.5 ±0.1	3.1 ±0.1	8.0 ±0.1	0.35 ±0.05



型号Size	A	B	C	包装数量
404030系列	330±2.0	100±2.0	13±2.0	3000 Pcs

产品说明Product description

- > Before using the product, the user must confirm whether the product meets your design requirements, YZX only guarantees that the product meets the specifications of this acknowledgement;
- > The data modification in the acknowledgement letter must be negotiated and approved by both parties, otherwise it will be deemed invalid.
- > The customer needs to sign this acknowledgement before placing the order, if the order is not signed back, it is deemed that this acknowledgement shall prevail;
- > AEC-Q200 test standard



注意事项Points For Attention

- >The best warranty period of product installation: 180 days from the factory date
- > After taking out the unused product, be sure to use sealing tape to seal it to avoid oxidation of the pad affecting welding;
- > Any water stains, sweat stains or dust contact with the pad will affect the solderability. Do not contact the pad directly with bare hands to avoid affecting the welding.
- > This product will change due to changes in working conditions, when you need to use this product in other applications, please re-test;
- > Excessive voltage, current or temperature will cause irreversible damage to the product, which may cause product function attenuation or even failure;
- > This product is not suitable for damp, dark and corrosive environments.