



产品规格确认书 *Specification For Approval*

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Specification For Approval

顾客 Customer: _____

顾客产品名称 Custom Product Name: COMMON MODE CHOKE

顾客零件号 Custom Part No.: _____




产品名称 Product Name: SY-0.5A-4.7mH COMMON MODE CHOKE

产品型号 Product Model: SY04TF-005-047-001

发布日期 Publish Date: 2022.10.17

版本 Version: V1.0

特别说明：此确认书请顾客在 2 周内确认，如未在规定时间内答复，则视为同意。

三友审批签字 Signature by Sanyou			顾客签字或盖章 stamp of signature by customer
编制 Make	审核 Check	批准 Approved	
			

Especially claim: This specification should be checked in 2 weeks, if had not answered in the scheduled time ,then regards as the agreement.



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变更版记录 Revisions

版本 Version No.	变更内容 Change description	变更原因 Reason	日期 Date	修改 Drafted by	审核 Checked by
V1.0	初版	/	2022.10.17	邹一鸣	黄玉华

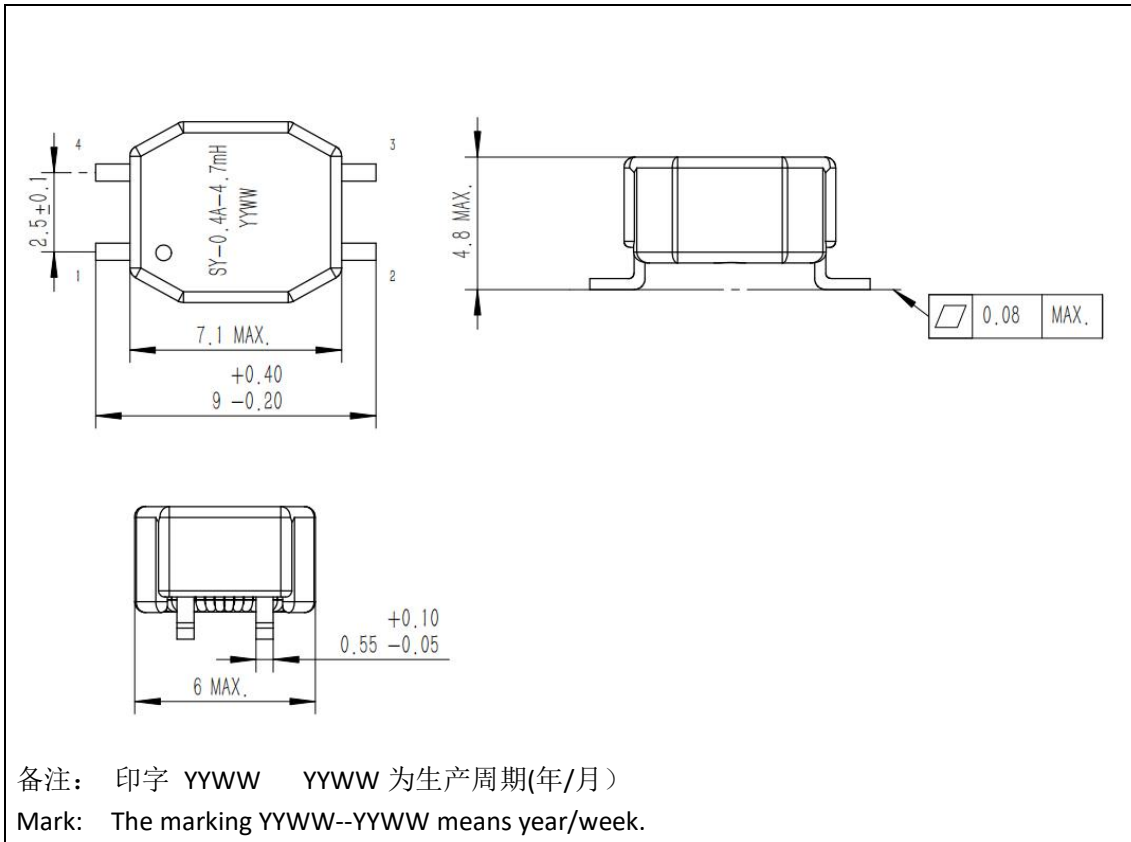
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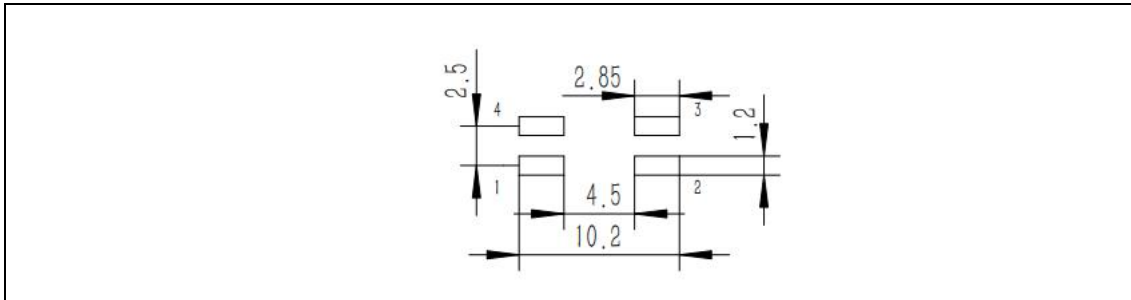


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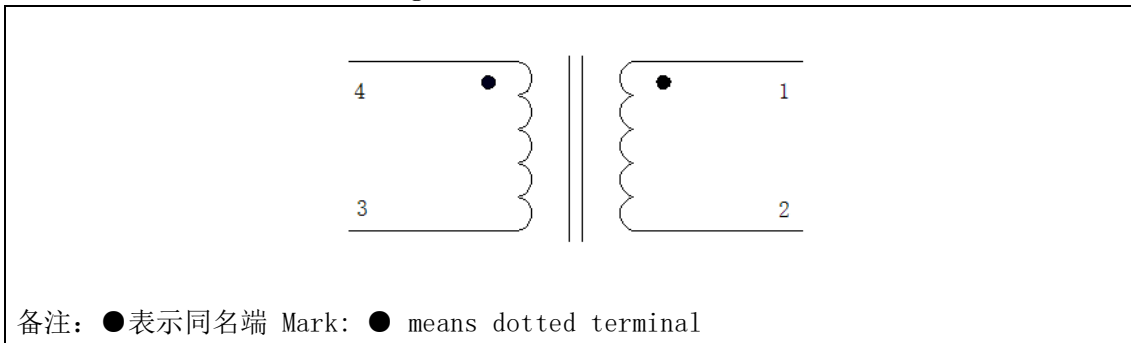
1. 外形尺寸(Outline Dimensions) (单位: mm)



2. 推荐 PCB 安装尺寸 (Suggested PCB Layout) (单位: mm)



3. 原理图 (Schematic Diagram)



4. 绕线参数 (Winding Parameter)



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起线-尾线 Start-finished pin	线径规格 Wire diameter	圈数 Turns	绕线方式 Winding condition	胶带圈数 Turns of tape
1-2	UEWH	32(REF.)	密绕 closed winding	/
4-3	UEWH	32(REF.)	密绕 closed winding	/

备注：绕线圈数参考，以电感量为准。

The turns of coil specified below is only for reference, the actual number is decided by the inductance

5. 电气特性(Electrical Characteristics)

项目 Item	测试引脚 Pin NO.	规格 SPEC.	测试条件 Conditions
△ 电感 Inductance	(1-2) / (4-3)	4.7mH-30%/+50%	10KHz 0.1mA 25°C (LCR 测试仪器内阻 100Ω)
△ 电感偏差 Inductance deviation	(1-2)-(4-3)	0.1mH MAX.	10KHz 0.1mA 25°C (LCR 测试仪器内阻 100Ω)
△ 漏感 Leakage inductance	1-2	250nH MAX.	1MHz 5mA 25°C (LCR 测试仪器内阻 100Ω) PIN4-3 short
△ 直流电阻 DC resistance	1-2	550mΩ MAX.	25°C
	4-3	550mΩ MAX.	
高压测试 Hi-pot test	(1-2)-(4-3)	500V DC	60S 1mA (For samples)
		750V DC	1S 1mA (For mass production)
工作温度范围 Operation Temperature		-40°C~125°C	包含线圈发热导致的温度升高 (including coil's temperature rising)

备注：△为特殊特性，三友自行识别。如客户要求，要按照客户提供的标识。Mark: △ means special characteristic identified by SANYOU, If customer specified other forms, we will update the spec

6. 材料表 (Material List)

编号 NO.	类别 Description	材料 Material	供应商 MANUFACTURER	认证号 UL NO.	温度等级 TEMP.
1	磁芯 Core	T4 ferrite	GUANDA 或等同 Zeming or equivalent	/	125°C
2	外壳 Case	DAP WH-9100	华宏或等同 WAH HONG INDUSTRIAL CORP or equivalent	E150608	155°C
		PIN	C5191 Ni (1~3um) Sn (5~10um)	/	/
3	漆包线 Wire	UEWH	金雁、先登或等同 Jinyan, Xiandeng or equivalent	E173779	180°C



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6	锡 Solder	Sn/Cu 99.3/0.7	添硕或等同 Tianshuo or equivalent	/	/
7	硅胶 silicone	9210	安品或等同 APSI or equivalent	/	150°C

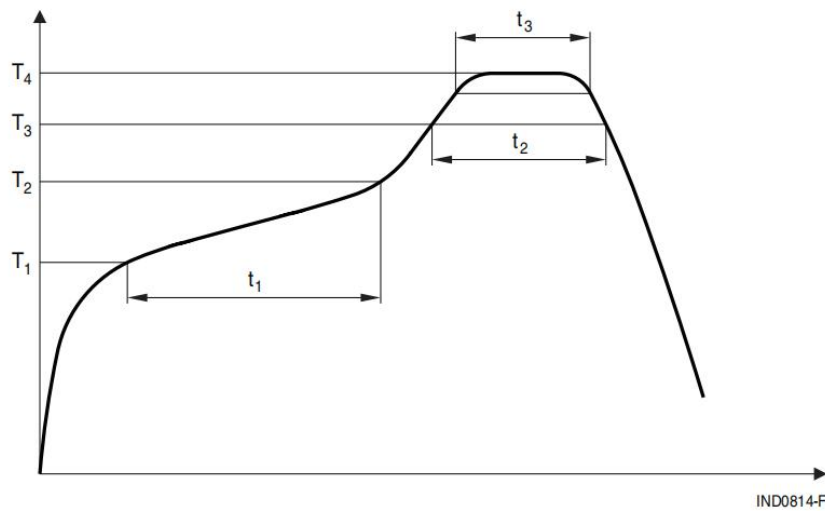
7. 产品工艺要求 (Technological Requirements):

- 1) 绕线平整，两个绕组圈数相同。The turns of two coils must be same, and the winding shall be flat without overlap.
- 2) 磁芯和外壳点胶固定。Fasten core and case with silicone.
- 3) 如客户无要求，产品标签为SY-0.4A-4.7mH 否则按照客户要求 if no rerequisites, marked the inductor with:SY-0.4A-4.7mH, else meets customer's specification.

8. 推荐焊接条件 (Recommend Soldering Conditions)

- 1) 焊接方式：回流焊 (Reflow soldering)
- 2) 典型焊接曲线 (Classification wave soldering profile)

Pb-free solder material (based on JEDEC J-STD 020C)



T ₁ °C	T ₂ °C	T ₃ °C	T ₄ °C	t ₁ s	t ₂ s	t ₃ s
150	200	217	250	< 110	< 90	< 40 @ T ₄ -5 °C

Time from 25 °C to T₄: max 300 s
Maximal numbers of reflow cycles: 3

9. 可靠性测试条件 (Reliability Testing Conditions)

序号 (NO.)	测试项目 (Item)	试验条件 (Conditions)	判定标准 (Criterion)
1	高温存储 High temperature storage	125°C 300 小时 125°C 300Hours	室温放置 2h 后，各项性能满足规格书要求 After 2 hours at room temperature, the performance meets the requirements of the specifications
2	低温存储	-40°C 300 小时	室温放置 2h 后，各项性能满足规格书要



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	Low temperature storage	-40℃ 300Hours	求 After 2 hours at room temperature, the performance meets the requirements of the specifications
3	冷热冲击 Thermal shock	-40℃30 分钟~ 125℃ 30 分钟 10 个循环 -40℃30 minutes~ 125℃ 30minutes 10 cycles	室温放置 2h 后, 各项性能满足规格书要求 求 After 2 hours at room temperature, the performance meets the requirements of the specifications
4	湿热试验 Damp heat test	温度 40℃, 湿度 93%RH 240 小时 Temperature 40℃ humidity 93%RH 240 hours	室温放置 2h 后, 各项性能满足规格书要求 求 After 2 hours at room temperature, the performance meets the requirements of the specifications
5	电寿命试验 Life test	额定电流 0.4A 1000 小时 Rated current 0.4A 1000Hours	试验完成后, 各项性能满足规格书要求 After the test, the performance meets the requirements of the specifications