



## 产品规格确认书

## Specification for approval

顾客 Customer: AM Tech

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

顾客零件号 Custorm Part No: \_\_\_\_\_

三友产品名称 SY Product Name: SY20UT COMMON MODE CHOKE

三友产品型号 SY Product model: SY20UT-0003-2500-001

发布日期 Publish Date: 2023.2.22

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	
邹一鸣	黄玉华	杜欣洋	

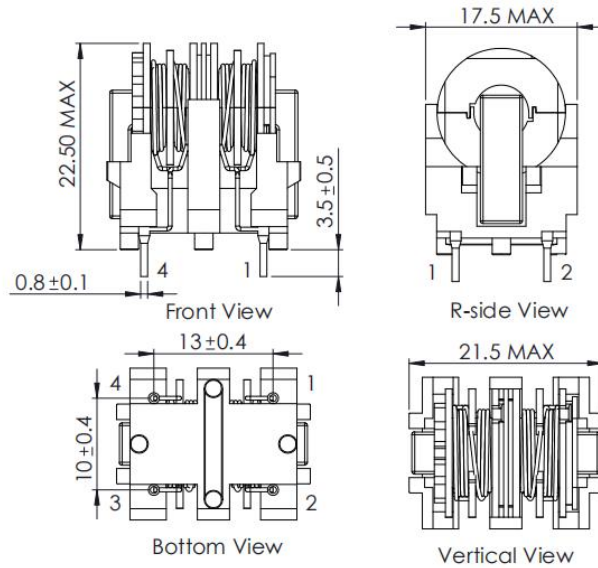
Especially claim: This specification should be checked in 2 weeks, if had not answered in the scheduled time ,then regards as the agreement.

## 变更版记录 Revisions

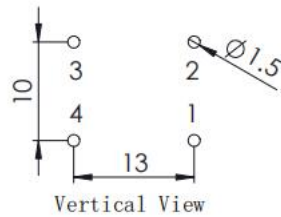
版本 Version No.	变更内容 Change description	变更原因 Reason	日期 Date	修改 Drafted by	审核 Checked by
1.0	初版	/	2023. 2. 22	邹一鸣	黄玉华

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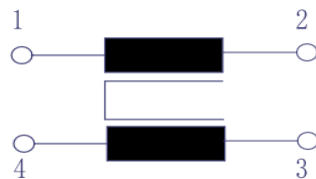
1, 外形尺寸 (Outer dimensions) (单位: mm)



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)

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	2UEWF 0.25mm	100 (ref)	close	/
4-3	2UEWF 0.25mm	100 (ref)	close	/

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

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### 5, 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) 产品需要浸凡立水。The inductor needs to be varnished.
- 3) 磁芯和骨架点胶固定。Fasten core and bobbin with glue.
- 4) 如客户无要求, 产品标签为SY-0.3A-25mH 否则按照客户要求 if no rerequirements, marked the inductor with:SY-0.3A-25mH, else meets customer' s specification.

### 6, 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	25mH min	1KHz 1V 25°C (LCR 测试仪器内阻 100Ω)
	4-3	25mH min	
电感偏差 Inductance deviation	1-2 - 4-3	150uH max	1KHz 1V 25°C (LCR 测试仪器内阻 100Ω)
漏感 Leakage inductance	1-2	150uH max	1KHz 1V 25°C (LCR 测试仪器内阻 100Ω) PIN4-3 short
直流电阻 DC resistance	1-2	2.0Ω max	25°C
	4-3	2.0Ω max	
高压测试 Hi-pot test	(1-2)-(4-3)	2.5KV	60S 1mA
	PIN-CORE	1.25KV	60S 1mA
绝缘电阻 Insulation resistance	(1-2)-(4-3)	100MΩ min	500VDC
工作温度范围 Operation Temperature		-40~125°C	包含线圈发热导致的温度升高 (including coil' s temperature rising)

### 7, 材料表 (Material list)

编号 NO.	类别 Description	材料 Material	供应商 MANUFACTURER	UL NO.	温度等级 TEMP.
1	Core	UT20 TS10	TDG or equivalent	/	125°C
2	Bobboin	T375HF	CHANG CHUN PLASTICS CO LTD or equivalent	E59481	150°C
3	Tape	LY0-XX	CHANG SHU LIANG YI TAPE INDUSTRY CO LTD or equivalent	E246820	130°C

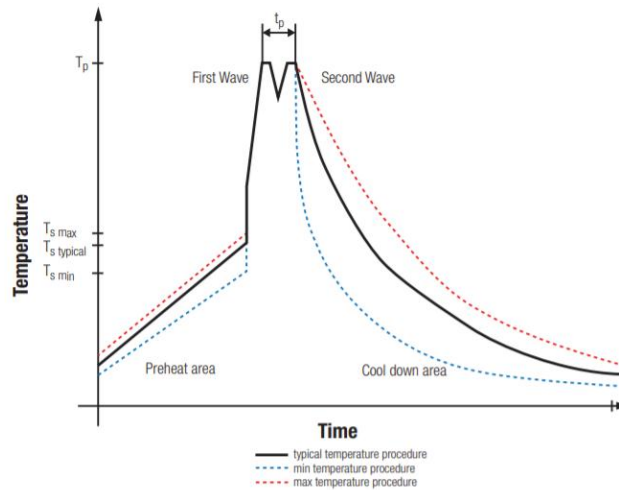
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4	WIRE	UEW-F	Guangdong Jinyan Electrotechnics or equivalent	E238500	155°C
5	Epoxy	EP600-3M HF	Santong or equivalent	/	/
6	Varnish	E57A	Changxianchem or equivalent	/	130°C
7	Solder	Sncu	Qiandao or equivalent	/	/

8, 推荐焊接条件 (Recommend soldering conditions)

- 1) 焊接方式: 波峰焊 (wave soldering)
- 2) 典型焊接曲线 (Classification wave soldering profile)

Classification Wave Soldering Profile:



Classification Wave Soldering Profile:

Profile Feature		Pb-Free Assembly
Preheat Temperature Min	$T_{s \min}$	100 °C
Preheat Temperature Typical	$T_{s \text{ typical}}$	120 °C
Preheat Temperature Max	$T_{s \max}$	130 °C
Preheat Time $t_s$ from $T_{s \min}$ to $T_{s \max}$	$t_s$	70 seconds
Ramp-up Rate	$\Delta T$	150 °C max.
Peak Temperature	$T_p$	250 °C - 260 °C
Time of actual peak temperature	$t_p$	max. 10 seconds max. 5 seconds each wave
Ramp-down Rate, Min		~ 2 K/ second
Ramp-down Rate, Typical		~ 3.5 K/ second
Ramp-down Rate, Max		~ 5 K/ second
Time 25 °C to 25 °C		4 minutes

refer to EN61760-1:2006