



产品规格确认书 Specification for approval

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Specification for approval

顾客 Customer: Arcelik

顾客产品名称 Custom Product Name: Common Mode Choke

顾客零件号 : Custom Part No: 1200940147




产品名称 Product Name: Common Mode Choke

产品型号 Product model: SY13TF-0.35A-22mH

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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	/	2022.1.5	邹一鸣	黄玉华

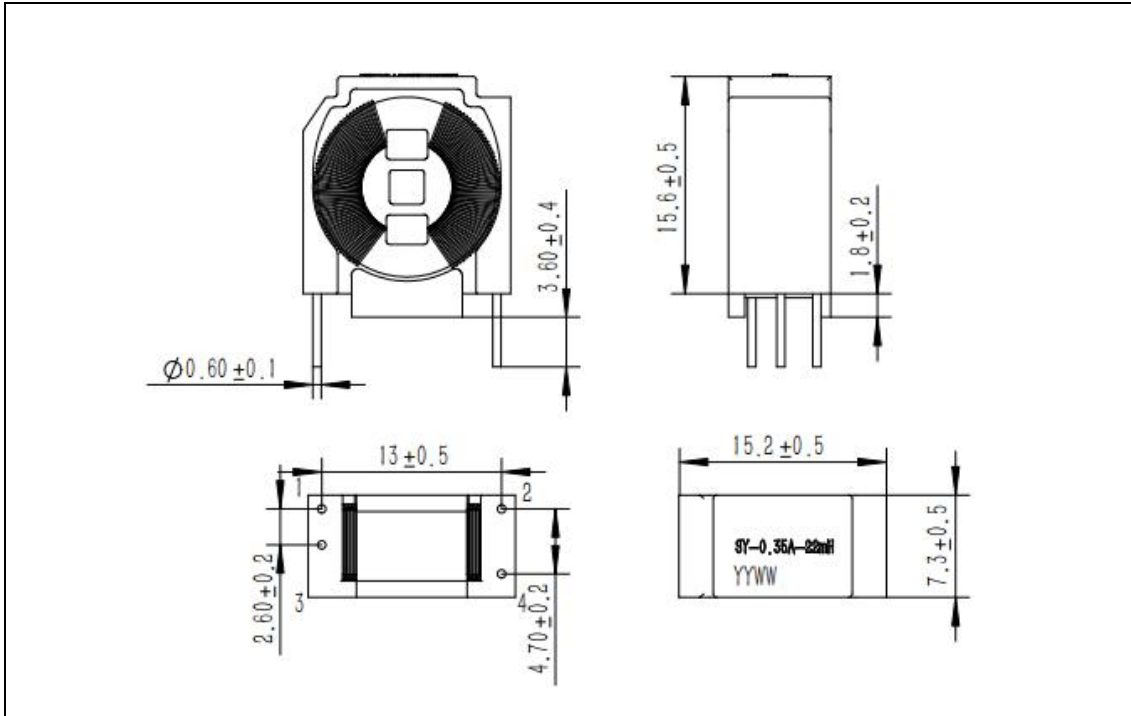
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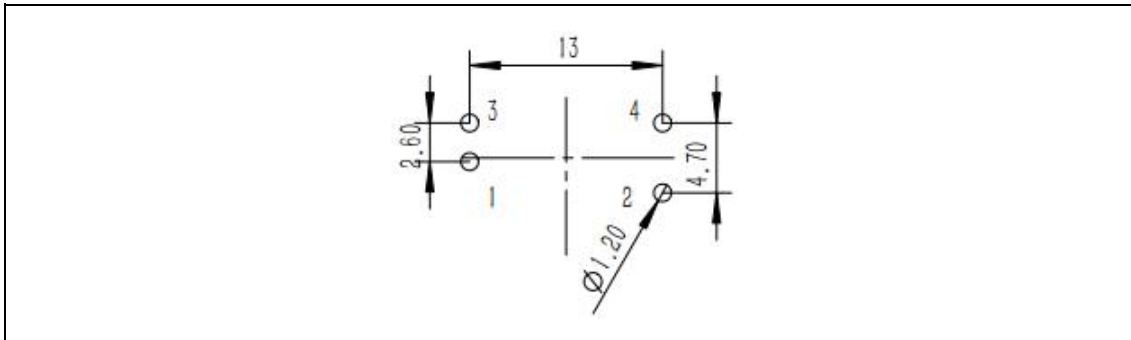


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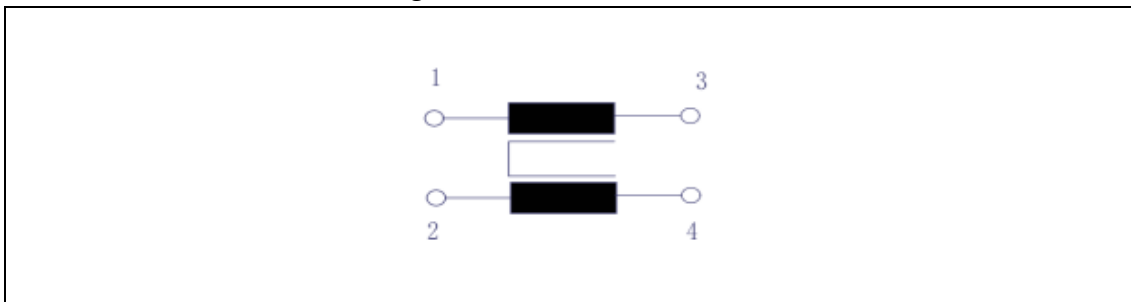
1. 外形尺寸(Outline Dimensions) (单位: mm) (UNIT:mm)



2. 推荐 PCB 安装尺寸 (Suggested PCB Layout) (单位: mm) (UNIT: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
1-3	1UEWF 0.12	112 (REF.)	close	\
2-4	1UEWF 0.12	112 (REF.)	close	\



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备注：绕线圈数参考，以电感量为准。

The turns of coil listed in winding parameter 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	1-3	22mH -30%/+50%	15KHz 0.3V 25℃ (LCR 测试仪器内阻 100Ω)
	2-4	22mH min -30%/+50%	
电感偏差 Inductance Deviation	1-3 - 2-4	300uH max.	15KHz 0.3V 25℃ (LCR 测试仪器内阻 100Ω)
漏感 Leakage Inductance	1-3	300uH max.	15KHz 0.3V 25℃ (LCR 测试仪器内阻 100Ω) PIN2-4 short
直流电阻 DC Resistance	1-3	1.9Ω max.	20℃
	2-4	1.9Ω max.	
高压测试 Hi-Pot Test	(1-2)-(4-3)	1.5KV	1S 1mA
	PIN-CORE	0.75KV	1S 1mA
绝缘电阻 Insulation Resistance	(1-2)-(4-3)	100MΩ min	500VDC 1MIN
额定电压 Rated Voltage		250VAC	50HZ/60HZ
额定电流		0.35A	
工作温度范围 Operation Temperature		-10℃~120℃	包含线圈发热导致的温度升高 (including coil's temperature rising)

### 6. 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	T13*7*4.5C GP95	Guanda or equivalent	/	130℃



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2	Case	PA66	NANTONG ORIENT PLASTICS CO LTDt	E332375	130°C
3	Wire	1UEW-F	Guangdong Jinyan Electrotechnics or equivalent	E238500	155°C
4	Solder	Sncu	Qiandao or equivalent	/	/

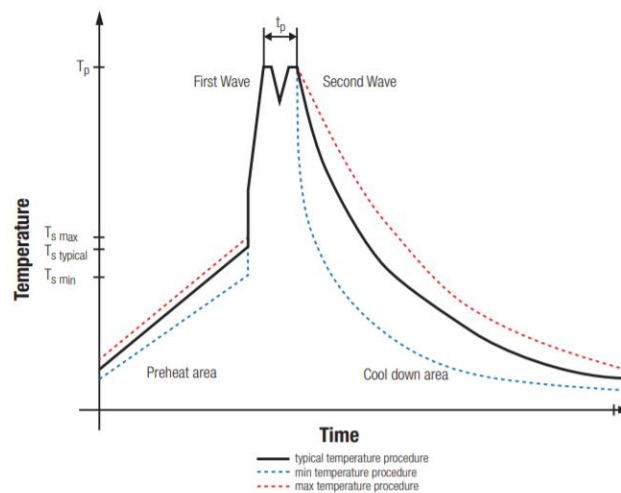
7. 产品工艺要求(Technological requirements):

- 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，隔板 and 底座点胶固定。Fasten core and bobbin with glue.
- 3) 如客户无要求，产品标签为 SY-0.35A-22mH 否则按照客户要求 If no rerequirements, marked the inductor with:SY-0.35A-22mH, else meets customer' s specification.

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:





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Classification Wave Soldering Profile:		
Profile Feature		Pb-Free Assembly
Preheat Temperature Min	$T_{s \text{ min}}$	100 °C
Preheat Temperature Typical	$T_{s \text{ typical}}$	120 °C
Preheat Temperature Max	$T_{s \text{ max}}$	130 °C
Preheat Time $t_s$ from $T_{s \text{ min}}$ to $T_{s \text{ max}}$	$t_s$	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

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	120°C 300 小时 120°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 Low temperature storage	-10°C 300 小时 -10°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
3	冷热冲击 Thermal shock	-10°C 30 分钟 ~ 120°C 30 分钟 10 个循环 -10°C 30 minutes ~ 120°C 30minutes 10 cycles	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
4	湿热试验 Damp heat test	温度 40°C, 湿度 93%RH 240 小时 Temperature 40°C humidity 93%RH 240 hours	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
5	电寿命试验 Life test	额定电流 0.35A 1000 小时 Rated current 0.35A 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