



# 上海立凯电控科技有限公司

Shanghai LineKey Technology Co., Ltd.

RoHS

## Specification For Approval

### 规格书

SFA NO. : LK-038-45

DATE: 2022-11-12

客户名称: \_\_\_\_\_

部件名称: 耦合变压器

客户料号: \_\_\_\_\_

公司料号: LT42-201

供方确认			客户确认
制作	审核	核准	
吴子晗	薄双燕	陈余想	

#### SPEC/更改记录

版本	序号	更改描述	更改原因	备注
A 0				

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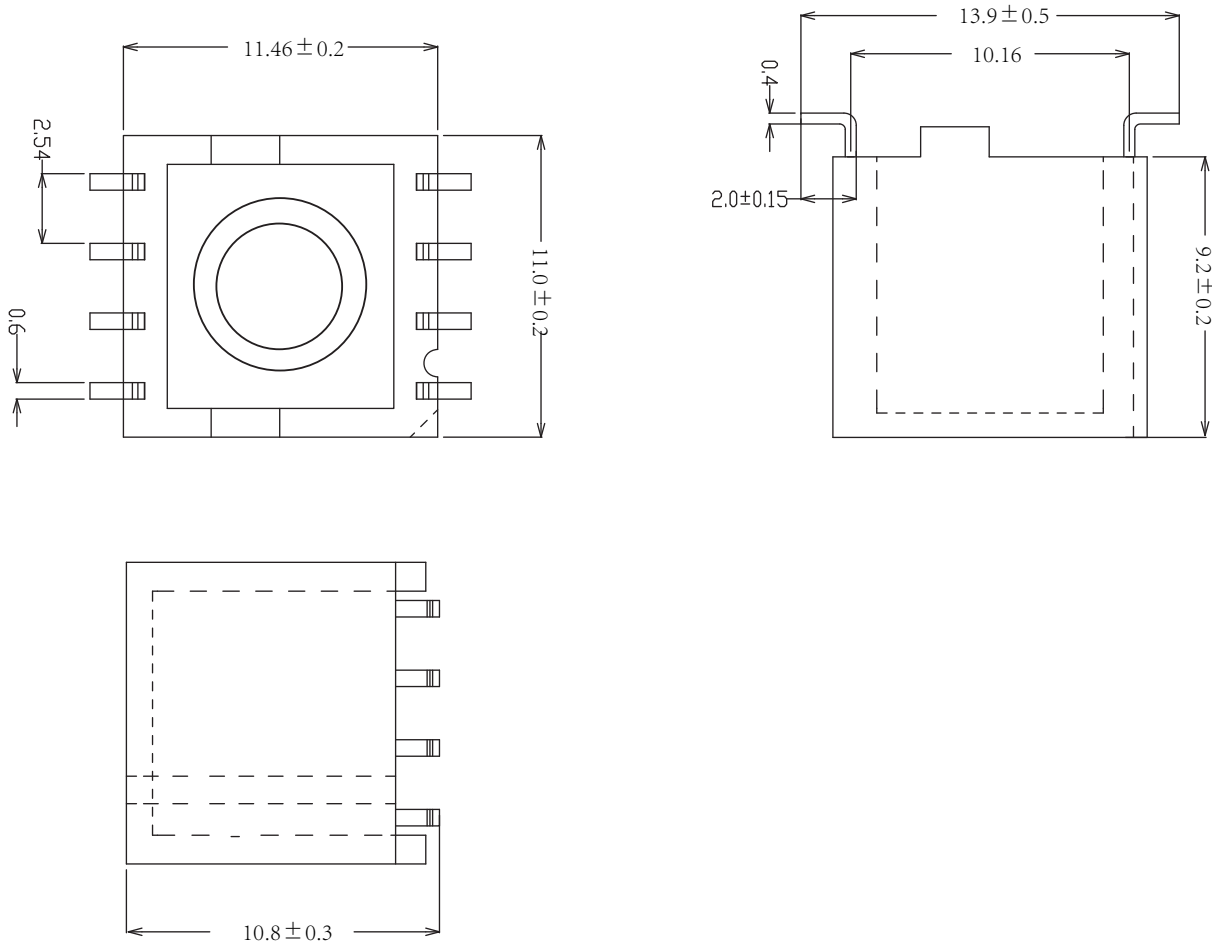
客户/CLIENT:

型号/MODEL: LT42-201

承制方/MANUFACTURER: 上海立凯电控科技有限公司

版本/REV: A0 页数: 2 of 6

1. 机械轮廓/ (Mechanical figure & Dimensions) UNIT:mm



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吴子晗

审核/CHECKED BY:

薄双燕

批准/RATIFIED BY:

陈余想

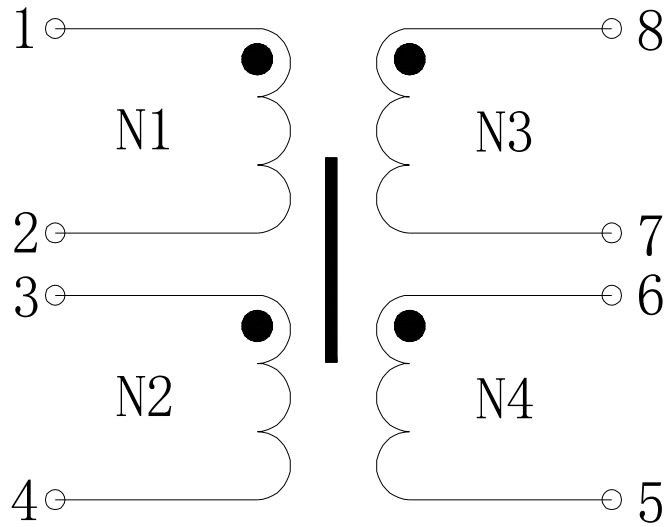
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版本/REV: A 0 页数: 3 of 6

### 2. 电气原理图/ (WINDING CONNECTION)



### 3. 工艺要求/ (TECHNICAL REQUIREMENT)

序号 NO.	端子/PIN		线材 Wire	圈数 Turns	胶带 (turns) Tape	挡墙宽度 (mm) Margin Tape	备注 Remark
	入/In	出/Out					
N1	1	2	FIW - $\Phi 0.14(\text{mm})$	11(ref)			
N2	3	4	FIW - $\Phi 0.14(\text{mm})$	11(ref)			
N3	8	7	FIW - $\Phi 0.14(\text{mm})$	11(ref)			
N4	6	5	FIW - $\Phi 0.14(\text{mm})$	11(ref)			

备注:

1.N1, N2, N3, N4四个绕组要求圈数相同。

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#### 4. 电气参数/ (ELECTRICAL SPECIFICATION)

序号 NO.	项目 ITEMS	测量端 MEASURING POINT	规格参数 SPECIFICATION	测量条件(AT 25°C) TEST CONDITION	测试仪器 APPARATUS
1	电感量 Inductance	1-2	100.0uH Min.	100kHz/0.3V 串联测试 (-30°C to 85°C)	TH2827C+TH26009B
2	漏感 Leakage Inductance	1-2(其它短接)	3.0uH Max.	100kHz/0.3V 串联测试	
3	直流电阻 DC Resistacne	1-2	190.0mΩ Max.		TH2516A
		3-4			
		8-7			
		6-5			
4	匝比 Turns Ratio	(N1:N2:N3:N4)	1:1:1:1±3%	100KHz/0.3V	GKT3259
5	绝缘耐压 Insulation Voltage	(1-4) to (5-8)	4.4KV/60S/1mA	ARC ON 2.7mA	CS9912B

#### 5. 材料清单/ (MATERIAL LIST)

NO.	项目/Item	描述/Description	材质/Material	供应商/Supplier	UL NO.
1	Plastic Case	8Pin	WH8200F	WAH HONG INDUSTRIAL CORP	E150608
2	Core	T Core	Ferrite	ACME Electronics Corporation	N/A
3	Wire	FIW 180°C	Polyurethane enamelled	ZHUHAI SUNTEK WIRE CO LTD	E234867
5	Silicone Rubber	DC1-2577	N/A	Dow Corning OR EQUIVALENT	E81611
6	Solder Bar	SN100C	Sn99.3/Cu0.7	ANSON OR EQUIVALENT	N/A

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6. 推荐回流焊曲线/ (CLASSIFICATION REFLOW PROFILES)

Profiles are based on the IPC/JEDEC J-STD-020D standard\*Figure 1 shows a typical profile and Table 1 lists the "reflow requirements"associated with this profile. Small volume SMD packages are typically classified at higher peak temperatures(**typical value is highlighted in bold,see Table 2**). Exceeding these conditions may lower product reliability.

Figure 1 – Reflow Profile for Solderability Testing

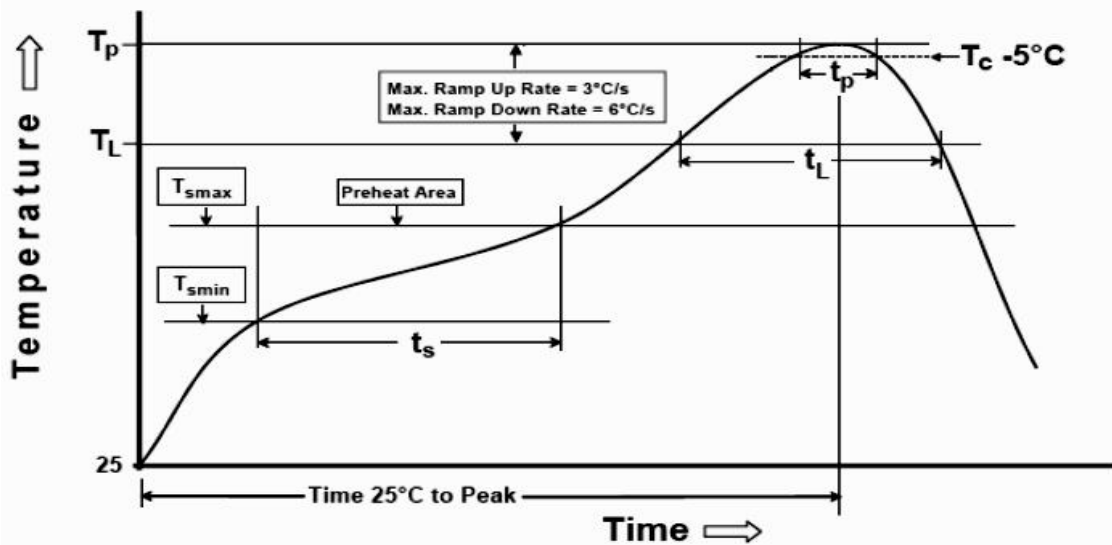


Table 1-Reflow Requirements for Solderability Testing

Reflow Parameter	Specification
Preheat temperature(T <sub>smin</sub> -T <sub>smax</sub> )	150°C-200°C
Preheat Time(t <sub>s</sub> )	60-180 seconds
Ramp-up Rate(T <sub>L</sub> -T <sub>p</sub> )	3°C/second maximum
Time Above 217°C(T <sub>L</sub> )	60-150 seconds
Peak Temperature(T <sub>p</sub> )	see Table 2
Time Within 5°C of Peak(T <sub>p</sub> )	20-40 seconds
Ramp-down Rate(T <sub>p</sub> -T <sub>L</sub> )	6°C/second maximum
25°C to Peak Temperature(T to T <sub>p</sub> )	8minutes maximum

\*Table adapted from JEDEC Standard IPC/JEDEC J-STD-020D.

Table 2-Peak Temperatures for Lead Free Components

Package Thickness	Volume mm <sup>3</sup>	Volume mm <sup>3</sup>	Volume mm <sup>3</sup>
	<350	350-2000	>2000
<1.6mm	260+0-5°C	260+0-5°C	260+0-5°C
1.6-2.5mm	260+0-5°C	250+0-5°C	245+0-5°C
>2.5mm	<b>250+0-5°C</b>	245+0-5°C	245+0-5°C

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版本/REV: A 0 页数: 5 of 6

## 电子样品检验报告

客户名称		部件名称	耦合变压器
客户料号		公司料号	LT42-201

一、电气性能                      环境温度: 25℃                      湿度: 75%

测试项目	测试标准&要求		测试数据									
			1	2	3	4	5	6	7	8	9	10
电感量	1-2 (100.0uH Min.)	100kHz/0.3V 串联测试	225.3	238.8	242.4	264.0	283.2	226.8	232.8	280.8	230.4	273.6
漏感	1-2 (其它短接) (3.0uH Max.)	100kHz/0.3V 串联测试	0.08	0.07	0.06	0.07	0.08	0.06	0.09	0.08	0.07	0.06
匝比	(N1:N2:N3:N4) = 1:1:1:1±3%		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
直流电阻	1-2 (190mΩ Max.)		140.0	138.9	138.1	138.1	137.0	138.0	137.2	135.6	138.1	134.7
	3-4 (190mΩ Max.)		140.0	138.2	135.1	137.8	135.0	141.2	135.9	134.9	136.2	136.0
	8-7 (190mΩ Max.)		139.5	138.3	137.6	136.5	135.0	137.2	135.6	141.1	138.2	135.2
	6-5 (190mΩ Max.)		140.5	139.3	137.8	137.5	135.6	138.2	137.5	136.5	136.4	137.1
绝缘耐压	(1-4) to (5-8)	4.4KV/60S/ 1mA	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
电弧侦测	(1-4) to (5-8)	4.4KV/3S/	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK

测试仪器:

1. TH2827C+TH26009B    2. TH2516A    3. GKT3259    4. CS9912B

备注:

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