COILMX

SPECIFICATION FOR APPROVAL

产品规格承认书

Flat high current inductor

扁平大电流电感

CUSTOMER.	
MODEL NO.	MT574060-142M-D
CUSTOMER'S PART NO.	082.S1072-01
LILE NO.	
DATE.	2025.09.11
REVISION.	A/0

CUSTOMER APPROVE		
DATE:		
DRAWING		
DRAWN BY	CHECK BY	APPROVAL BY
林思思	陈健波	曾伟
DATE: 2025.09.11		

COILMX
新能源光储充电子磁性元器件制造商

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深圳市迈翔科技有限公司
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REVISIONS

REW	PROJECT CHANGE	DESCRIPTION	Date

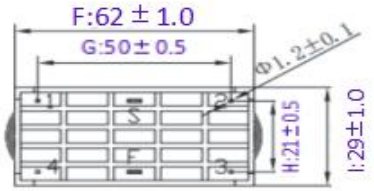
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1.PRODUCT DIMENSION UNIT:mm







标签：

082.S1072-01
COILMX YYWW

YY：年份 WW：周期

A	68Max
B	33Max
C	67Max
D	4.0±0.5
E	3.0±0.2
F	62±1.0
G	50±0.5
H	21±0.5
I	29±1.0

2.ELECTRICAL REQUIREMENTS

PARAMETER	SPECIFICATION	CONDITION	TEST INSTRUMENTS
L(mH)	1.4±12%	20KHz,1V	MICROTEST 6377
DCR(mΩ)	110mΩMAX	At 25℃	TH2512A
匝间耐压	S-F	DC1000V 波形无异常 大于5个脉冲，无击穿	MICROTEST 6377+6220
抗电强度	磁芯-线圈	1000Vac, 60HZ<3mA 3S	CHROMA 19052
直流偏置-DC	S-F		MICROTEST 6377+6220

3.MATERIAL LIST

名称	型号规格	供应商	耐温等级	ROHS报告
磁芯	ETF574-75	艾特√	/	YES
	AXY571-02-00	安可远	/	YES
扁平线	扁平线-耐温180℃/规格0.5*3mm 圈数88±2TS	佳腾/松田/天顺	180℃	YES
锡	TIN-Sn99.95	QIAN DAO	/	YES
凡立水	E962	长先	180℃	YES
套管	10L	中电辰光	/	YES
固定胶	6065H	惠利	150℃	YES

4.PRODUCT IDENTIFICATION

XX XXXXX - XXX X

① ② ③ ④

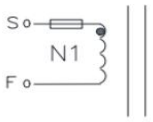
①、 Product Symbol ②、 Dimensions ③、 Inductance

④、 Tolerance: J:±5% K:±10% L:±15% M:±20% P:±25% N:±30% Y min

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5.ELECTRICAL SCHEMATICS



● POLARITY

* "▭" INDICATE THE TUBE.

6.APPLICATION

(1)Power supplies, Switching circuits.

(2)EMI/RFI chokes.

(3)Energy storage inverter

(4)Power amplifiers.

7.FEATURES

(1)Cost effective design.

(2)ultra high current rating.

8.TEST DATA

SORT	ITEM	A	B	C	D	E	F	G	H	I
PRODUCT & DIMENSION	SPEC	68Max	33Max	67Max	4.0±0.5	3.0±0.2	62±1.0	50±0.5	21±0.5	29±1.0
	1	65.32	25.36	62.56	4.02	3.02	62.26	50.21	21.23	**29.03**
	2	65.35	25.42	62.58	4.25	3.01	62.23	50.23	21.35	**29.06**
	3	65.39	25.36	62.59	4.26	3.03	62.35	50.21	21.36	**29.12**
	4	65.37	25.38	62.55	4.25	3.03	62.31	50.26	21.34	**29.22**
	5	65.36	25.32	62.65	4.29	3.02	62.30	50.26	21.36	**29.30**
	X	65.36	25.37	62.59	4.21	3.02	62.29	50.23	21.33	29.15
	R	0.07	0.10	0.10	0.27	0.02	0.12	0.05	0.13	0.27

	ITEM	L(H)	DCR (mΩ)	匝间耐压	抗电强度	直流偏置-DC	SHAPE:
ELECTRICAL & REQUIREMENTS	SPEC	1.4±12%	110mΩ MAX	DC1000V 波形无异常 大于5个脉冲，无击穿 无打火，波形无	1000Vac，60HZ<3 mA 3S		
	1	1.39	79.85	OK	OK		
	2	1.39	79.31	OK	OK		
	3	1.37	79.61	OK	OK		
	4	1.39	79.52	OK	OK		
	5	1.37	79.49	OK	OK		
	X	1.38	79.56				
	R	0.02	0.54				

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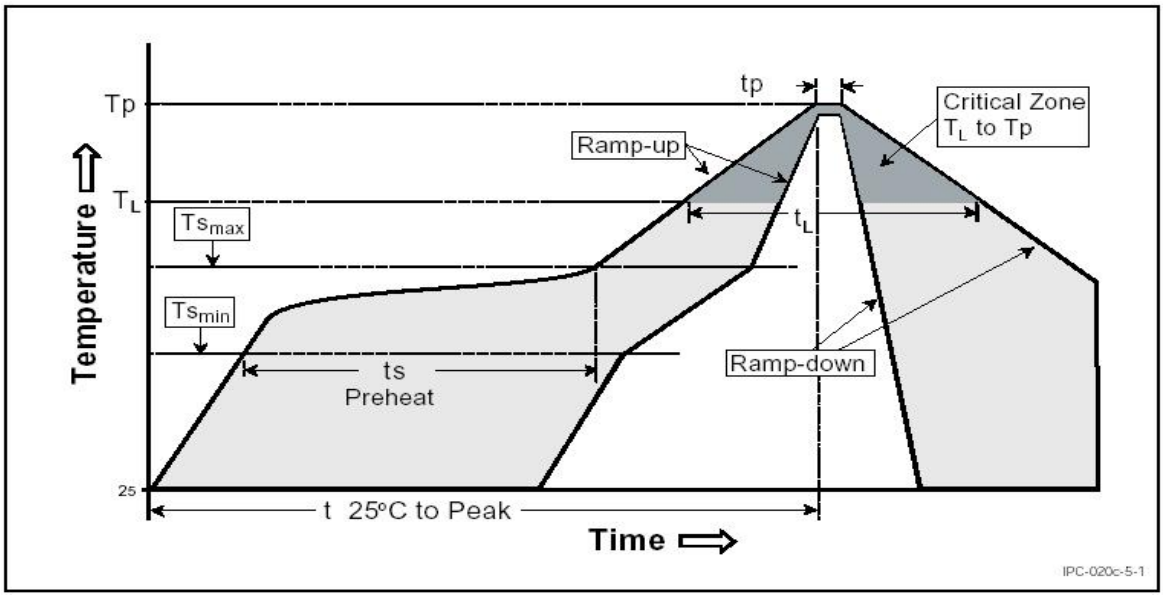
项目Item	规格与需求 Specification and Requirement	测试方法Test Method
可焊性 Solder a bility test	沾锡面积不得小于95%上锡面 Terminals area must have 95% min solder coverage	上锡升温曲线Solder heat proof: (1) 预热：160±10℃持续90s Preheating: 160±10℃ for 90 seconds (2) 恒温时段：245±5℃持续2±0.5s Retention time: 245±5℃ for 2±0.5 seconds
振动测试 Vibration test	感值变化：不超过±5% 且无破裂等机械损伤产生 Inductance change: Within±5% Without mechanical damage such as break	(1) 振动频率(10Hz 55Hz 10Hz)60s为一个周期 Vibration frequency: (10Hz to 55Hz to 10Hz) in 60 seconds as a period (2) 振动时间 Vibration time: 三维正交坐标系每个方向振动（周期） 循环2小时 Period cycled for 2 hours in each of 3 mutual perpendicular directions (3) 振幅 Amplitude: 1.5 mm Max
冲击测试 Shock test	感值变化：不超过±5% 且无破裂等机械损伤产生 Inductance change: Within±5% Without mechanical damage such as break	(1) 最大振幅 Peak value: 100G (2) 脉冲波长 Duration of pulse: 11ms (3) 三维正交坐标系每个方向正负方向冲击3次 Times in each positive and negative direction of 3 mutual perpendicular directions
冷热冲击 Thermal shock	感值变化：不超过±5% 且无破裂等机械损伤产生 Inductance change: Within±5% Without mechanical damage such as break	(1)重复以上100个循环Repeat 100 cycle as follow (-40±2℃,30±3分钟) 室温5分钟 (-40±2℃,30±3 minutes) Room temperature,5 minutes (+125±2℃,30±3分钟) 室温5分钟 (+125±2℃,30±3 minutes) Room temperature,5 minutes
耐高温测试 High temperature life test	感值变化：不超过±5% 且无破裂等机械损伤产生 Inductance change: Within±5% Without mechanical damage such as break	(1)环境条件：85±2℃ Environment condition : 85±2℃ 应用电流：额定电流 Applied current: Rated current (2)持续时间：1000+4/-0 小时（参考注释1） Duration:1000+4/-0 hours (see Note1)
耐湿测试 Humidity Resistance	感值变化：不超过±5% 且无破裂等机械损伤产生 Inductance change: Within±5% Without mechanical damage such as break	(1)环境条件：60±2℃ Environment condition : 60±2℃ 湿度：90~95% Humidity:90~95% 应用电流：额定电流 Applied current: Rated current (2)持续时间：1000+4/-0 小时（参考注释1）
低温存放测试Low temperature life test	感值变化：不超过±5% 且无破裂等机械损伤产生 Inductance change: Within±5% Without mechanical damage such as break	(1)存储温度 Store temperature -40±2℃下存放 1000+4/-0 小时 -40±2℃for total 1000+4/-0 hours
高温存放测试High temperature life test	感值变化：不超过±5% 且无破裂等机械损伤产生 Inductance change: Within±5% Without mechanical damage such as break	(1)存储温度 Store temperature +125±2℃下存放 1000+4/-0 小时 +125±2℃for total 1000+4/-0 hours

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Reflow curve

※ Reflow Profile



1. Reflow Soldering Method

Package Thickness	Volume mm³ <350	Volume mm³ 350 - 2000	Volume mm³ >2000
<1.6 mm	260 +0 °C *	260 +0 °C *	260 +0 °C *
1.6 mm - 2.5 mm	260 +0 °C *	250 +0 °C *	245 +0 °C *
≥2.5 mm	250 +0 °C *	245 +0 °C *	245 +0 °C *
* Tolerance: The device manufacturer/supplier **shall** assure process compatibility up to and including the stated classification temperature (this means Peak reflow temperature +0 °C. For example 260 °C+0°C) at the rated MSL level.			

1.高温耐热性

在260℃的熔融钎料中，停留时间不少于10秒，无质量问题

2.返修温度和时间

温度：350℃；时间：不少于5秒

3.焊接次数

元器件能承受的焊接次数不少于5次

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9 Notice of Use
9.1 Special remind:Circuit design, component placement, PCB size and thickness, cooling system and etc. all will affect the product temperature. Please verify the product temperature in the final application.
9.2 Product in packing storage condition:temperature 5～40℃, RH≤70%.
If taking out for use, the remaining products should be sealed in plastic bags and preserved in accordance with
the above conditions, to avoid oxidation of terminals (electrodes), affecting soldering status. 9.3 A storage of Codaca Electronic products for longer than 12 months is not recommended, Within other
effects, the terminals may suffer degradation, resulting in bad solderability. Therefore, all products shall be used within the period of 12 months based on the day of shipment.
9.4 Do not keep products in unsuitable storage conditions, such as areas susceptible to high temperatures, high humidity, dust or corrosion.
9.5 Always handle products with care.
9.6 Don't touch electrodes directly with bare hands as oil secretions may inhibit soldering. Always ensure optimum conditions for soldering.
9.7 When this product will be used on a similar or new project to the original one, sometimes it might be unable to satisfy the specifications due to different condition of usage.
9.8 This inductor itself does not have any protective function in abnormal condition, such as overload, short-circuit, open-circuit conditions, etc. Therefore, it shall be confirmed that there is no risk of smoke,
fire, dielectric withstand voltage, insulation resistance, etc., or use in abnormal conditions protective devicesor protection circuit in the end product.
9.9 Hi-Pot test with higher voltage than spec value will damage insulating material and shorten its life.
10 If using in potting compound, the magnet wire coating might be damaged, please consult with us.
10.1 Refrain from rinsing coils. If necessary, please consult with us.