



# 产品承认书

## SPECIFICATION FOR APPROVAL

客户名称:

CUSTOMER

我司料号:

OUR PART NO.

XRFWHP1513A-4R7M

我司品名:

OUR PART NAME

Molding Power Inductors

送样日期:

DATE SAMPLES

数量:

QUANTITY

### 制造确认 MANUFACTURER APPROVE

拟制 DRAWN	审核 CHECKED	确认 APPROVED
HuFangting	RaoPin	Zhongcuilan

### 客户确认 CUSTOMER APPROVE

客户名称 CUSTOMER NAME:

客户料号 CUSTOMER P/N:

规格型号 DESCRIPTION:

XRFWHP1513A 4.7uH  $\pm 20\%$  48A

检查结果: ☐ 合格 ☐ 不合格

签名及盖章:

INSPECT RESULT ACCEPT REJECT

SIGNATURE AND STAMP

说明 REMARK:

如对本承认书内容有异议请提出或标记发送至我司, 本承认书在未收到异议回复时于本承认书提供一周后生效。

If you have any objection to the contents of this acknowledgement, please put forward or mark it and send it to our company. This acknowledgement will take effect one week after it is provided if you do not receive an objection reply.

东莞市祥如电子有限公司

Dongguan xiangru electronics co., ltd

Tel: 0769-86346548 Fax: 0769-86346358

Email: dgxiangru@126.com



## 修订记录 Revision record

[illegible]

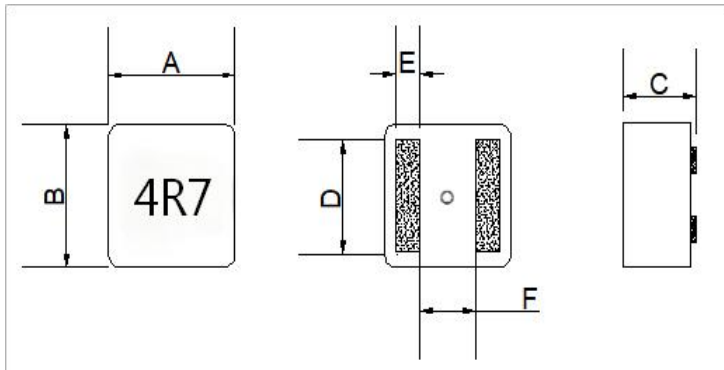
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### SPECIFICATION FOR APPROVAL

客户名称 CUSTOMER		日期 DATE	2025/9/10
客户物料编号 CUSTOMER P/N		客户规格型号 DESCRIPTION	XRFWHP1513A 4.7uH ±20% 48A
我司物料编号 OUR PART NO	XRFWHP1513A-4R7M	我司品名 OUR PART NAME	Molding Power Inductors

外观尺寸 Appearance of size

单位 Unit: mm



A	16.6±0.3	C	13.0Max	E	3.6Typ
B	15.6±0.3	D	13.8Typ	F	7.0Typ
标识Identification					

ELECTRICAL CHARACTERISTIC:

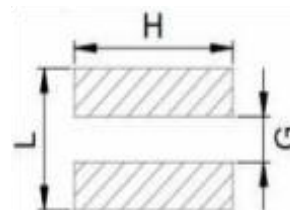
Part No.	Inductance (uH)±20%	Test Freq.	DCR(mΩ) Typ(Max)	Isat(A) Typ	Irms(A) Typ	Marking
XRFWHP1513A-4R7M	4.7	100kHz/0.1V	3.00(3.30)	48.00	34.00	4R7

SCHEMATIC DRAWING :



Equivaient Circuit

PCB PATTERN :



G :6.0Typ  
H : 15.0Typ  
I : 15.0Typ

Standard Testing Condition:

	Unless otherwise specified	In case of doubt
Temperature	Ordinary Temperature(15 to 35℃)	25±5℃
Humidity	Ordinary Humidity(25 to 85% RH)	50 to 80% RH

NOTE: □-tolerance M=±20% / T=±30%

1.Operating temperature range -40℃~125℃(Including self - temperature rise)

2.Saturation Current (Isat) will cause L0 to drop approximately 30%.(Internal control standards at 40% max)

3.Irms for a 40℃ temprature rise from 25℃ ambient.

DCR test method:

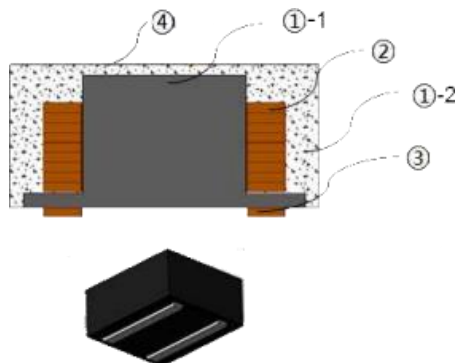


Irms testing was performed on 20mm wide × 6mm thick copper traces in still air.Temperature rise is highly dependent on many factors including pcb land pattern, trace size, and proximity to other components. Therefore temperature rise should be verified in application conditions

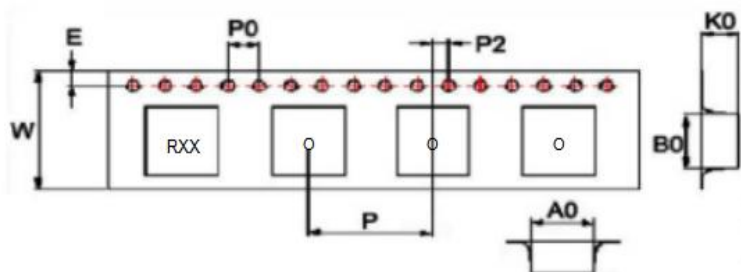
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**Construction:**

**Material List:**

NO.	Part Name	Material Name
①-1	Core	Magnetic powder
①-2	Core	Magnetic powder
②	Wire	Enamelled copper wire
③	Electrode	Cu / Sn
④	Coating	Epoxy

**PACKAGING:**

**Dimensions in mm**

TYPE	Tape Dimensions								
	W	P	A0	B0	K0	E	P0	P2	
XRFWHP1513A	32.0	21.0	17.0	16.0	13.6	1.75	4.0	2.0	

**Packaging Quantity**

TYPE	Chip/Reel	Inner Box	Outer Box
XRFWHP1513A	100	200	400

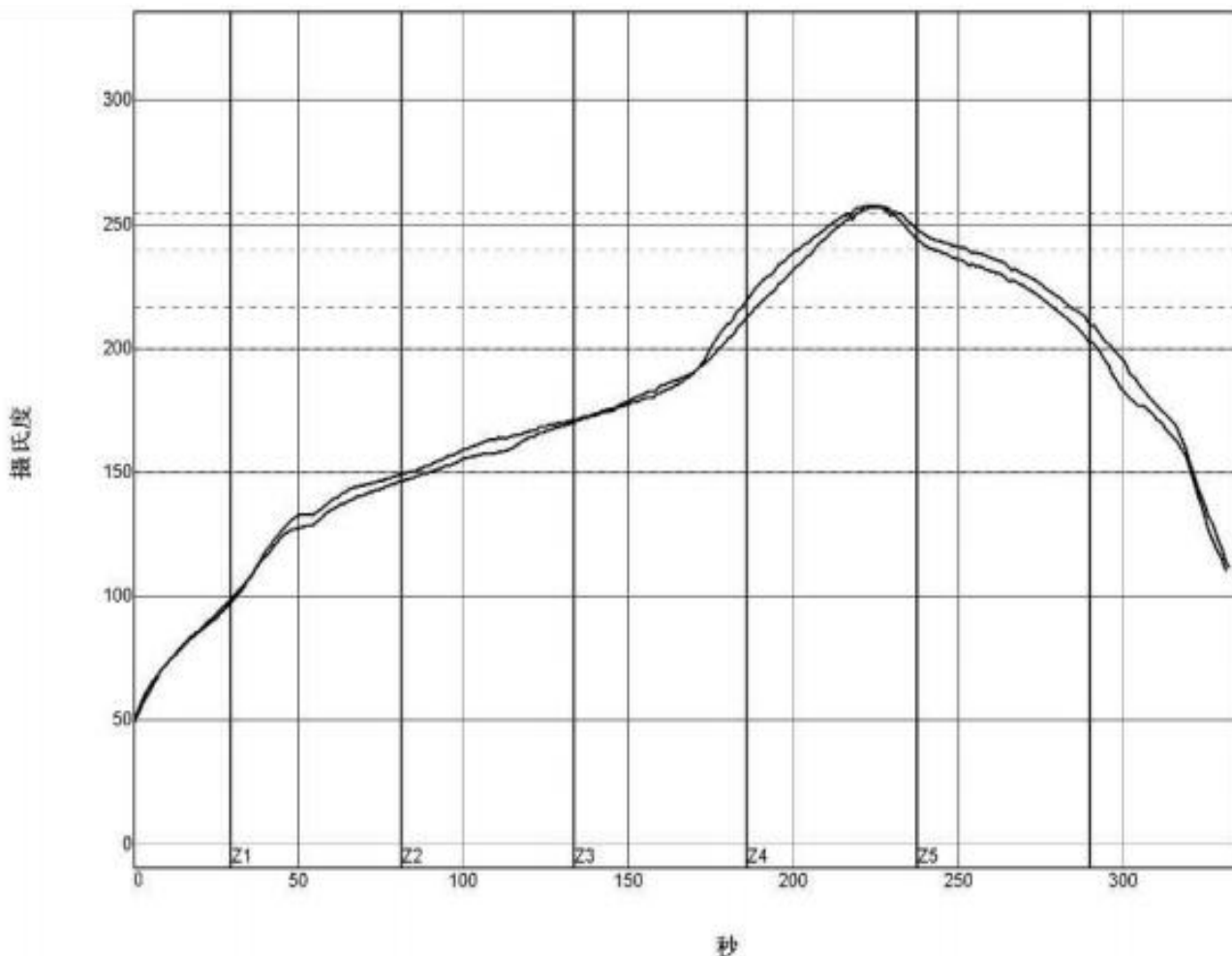
**※Storage Conditions**

1. Temperature and humidity conditions: -10-+40℃ and 70% RH Max.
2. Recommended products should be used within 12 months from the time of delivery.
3. The packaging material should be kept where no chlorine or sulfur exists in the air.

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For Lead-Free Application  
Figure . Re-flow Soldering



PW= 85%	预热150至200C		回流时间 /217C		最高温度		总时间 /240C		总时间 /255C±2	
<TC2>	85.69	-57%	93.82	-25%	258.05	-39%	41.51	-85%	10.84	-22%
<TC3>	94.67	-42%	95.11	-22%	257.45	-51%	46.32	-37%	11.00	-20%
温差	8.98		1.29		0.60		4.81		0.16	

制程界限:

统计数名称	最低界限	最高界限	单位
预热时间150-200摄氏度	60	180	秒
回流以上时间 - 217摄氏度	60	150	秒
最高温度	255	265	度 摄氏度
在240摄氏度以上时间	40	60	秒
在255摄氏度以上时间-( 2 )	5	20	秒



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SHC Series Specification :

.Mechanical Performance

No	Item	Specification	Test Method
8-1-1	Vibration	Appearance: No damage Inductance: within ±10% of initial value	Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55 to 10Hz for 1min Amplitude: 1.5mm Time: 2hrs for each axis (X, Y & Z), total 6hrs
8-1-2	Resistance to Soldering Heat	Appearance: No damage	Pre-heating: 150℃, 1min Solder Composition: Sn/Ag3.0/Cu0.5Solder Temperature: 260±5℃ Immersion Time: 10±1sec
8-1-3	Solder ability	The electrodes shall be at least 95% covered with new solder coating	Pre-heating: 150℃, 1min Solder Composition: Sn/Ag3.0/Cu0.5Solder Temperature: 245±3℃ Immersion Time: ≤3sec
8-1-4	Resistance to solvent	There must be no change in appearance or obliteration of marking.	Inductors must withstand 6 minutes of alcohol or water.

Environmental Performance

No	Item	Specification	Test Method		
8--2-1	Temperature Cycle	Appearance: No damage Inductance:within±10% of initial value	One cycle:		
			Step	Temperature (°C)	Time (min)
			1	-40±3	30
			2	25±2	3
			3	125±3	30
			4	25±2	3
			Total: 100cycles Measured after exposure in the room condition for 24hrs		
8--2-2	Humidity Resistance	Temperature: 40±2℃ Relative Humidity: 90 ~ 95% Time: 1000hrs Measured after exposure in the room condition for 24hrs			
8--2--3	High Temperature Resistance	Temperature: 125±3℃ Relative Humidity: 0% Time: 1000hrs Measured after exposure in the room condition for 24hrs			
8-2--4	Low Temperature Resistance	Temperature: -40±3℃ Relative Humidity: 0% Time: 1000hrs Measured after exposure in the room condition for 24hrs			