

SPECIFICATION FOR APPROVAL

承 認 書

CUSTOMER

客戶名稱：

NUMBER

編號： LH2918-100

PART NO.

品 名： CPQ2918-100M

QUANTITY

數量： 5PCS

DESCRIPTION

型 號： CPQ2918

DATE

日期： 2025-01-09

CUSTOMER PART NO.

客戶料號：

NOTE

注解：

APPROVAL SIGNATURE

客戶承認簽章

Approved By 核 准	Checked By 审 查	Drawn By 制 作
李 庆 辉	苏 高 峰	劳 水 花

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SPECIFICATIONS

TYPE:

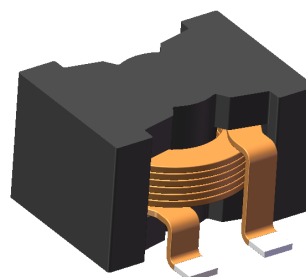
CPQ2918-100M

1. Scope

This specification apply for CPQ2918 of power inductors
Product Identification (Part Number)

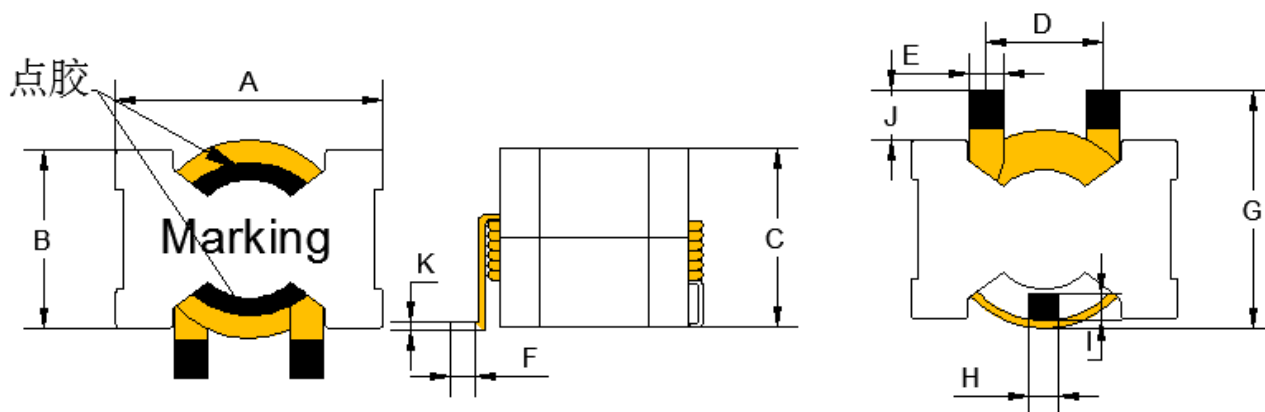
CPQ 2918 - 100 M
① ② ③ ④

- ① Product Series
- ② Choke Size
- ③ Initial Inductance:100=10 μ H
- ④ Inductance Tolerance:M= $\pm 20\%$



2. Appearance

2-1.Dimensions(mm)

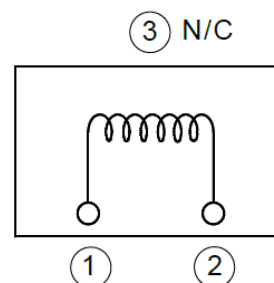
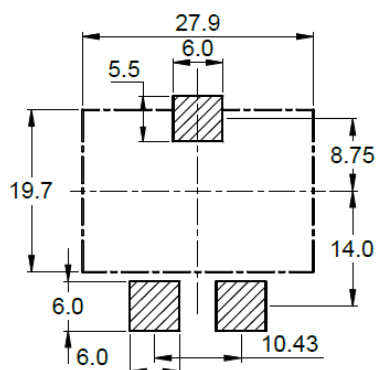


A	B	C	D	E	F	G	H	I	J	K
28.0Max	19.4Max	18.5Max	11.0 ± 0.5	3.8 ± 0.3	3.8Min	27.0Max	3.1 Ref	2.8 Ref	6.5 ± 1.0	0.8Ref.

2-2 Marking

2-3 Reference land pattern(mm)

2-4 Schematic



Note :

产品平贴度管控 ≤ 0.15 mm

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3. Electronical characteristics

Part number 料号	Inductance 电感量 uH	DC resistance 直流电阻 mΩ	DC saturation current 直流饱和电流 A typ.	Temperature rise current 温升电流 A max.
CPQ2918-100M	10±20%	2.4 ± 10%	30.5 (ΔL≤30%)	28 (ΔT≤50℃)

Remark

※ All data is tested based on 25℃ ambient temperature.

1. Test frequency at 100kHz/0.1V

2. Saturation current : the actual value of DC current when the inductance decrease 30% of its initial value.

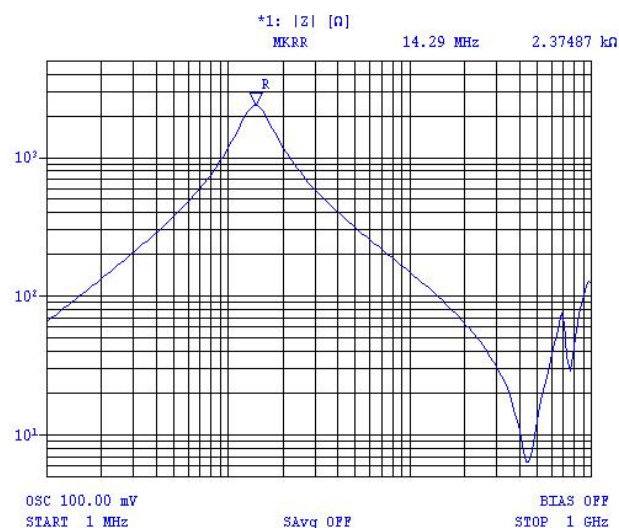
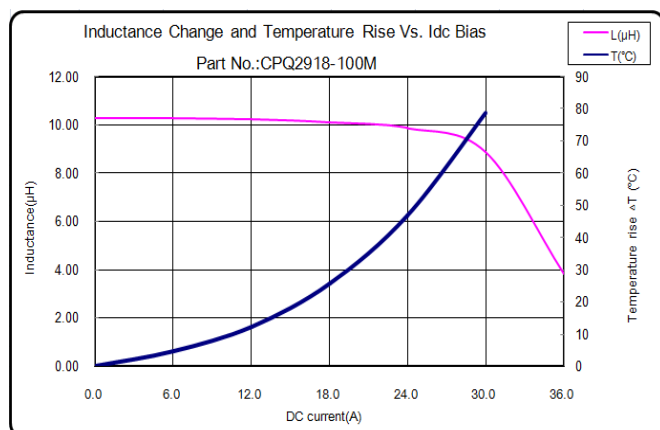
3. Temperature rise current : the actual value of DC current when the temperature rise is ΔT50℃ (Ta=25℃).

4. Special remind : Circuit design, component placement, PWB size and thickness, cooling system and etc. all will affect the product temperature. Please verify the product temperature in the final application.

5. Storage temperature range : -40℃ ~ +125℃

6. Operating temperature range : -40℃ ~ +125℃ (Including coil's temperature rise)

4. Curve



5. Material List

No	Part	Material
1	Core	Ferrite P47 PQ27/18SC
2	Wire	Copper Wire 0.8*3.8mm AIW 220℃
3	BASE	C-SER29
4	Epoxy	JC764-14 黑色（点磁芯边柱和接合处） EP5200-01 灰色（点磁芯中柱）

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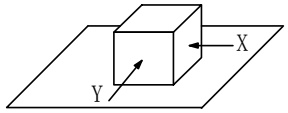
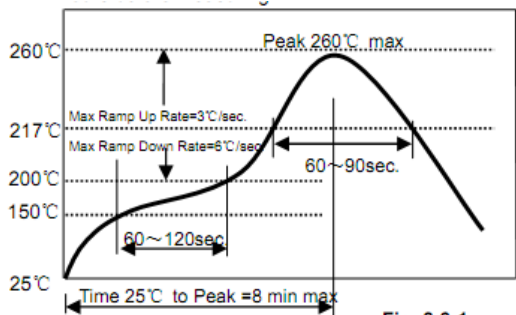
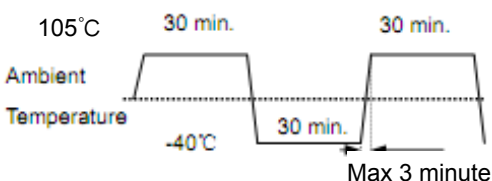
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6. Reliability Test

Items	Requirements	Test Methods and Remarks
6.1 Terminal Strength	No removal or split of the termination or other defects shall occur.  Fig.6.1-1	1) Solder the inductor to the testing jig (glass epoxy board shown in Fig.6.1-1) using eutectic solder. Then apply a force in the direction of the arrow. 2) 10N force. 3) Keep time: 5±2s
6.2 High Temperature	1. No visible mechanical damage. 2. Inductance change: Within ±10%	1) Storage Temperature :125+/-5°C 2) Duration : 96 ±4 Hours 3) Recovery : then measured at room ambient temperature after placing 24 hours.
6.3 Low Temperature	1. No visible mechanical damage 2. Inductance change: Within ±10%	1) Temperature and time: -40±5°C 2) Duration: 96±4 hours 3) Recovery : then measured at room ambient temperature after placing 24 hours.
6.4 Vibration test	1. No visible mechanical damage. 2. Inductance change: Within ±10%	1) Frequency range:10Hz~55Hz~10Hz 2) Amplitude:1.5mm p-p 3) Direction:X,Y,Z 4) Time:1 minute/cycle,2hours per axis
6.5 High Temperature Storage Tested	1. No visible mechanical damage. 2. Inductance change: Within ±10%	1) Storage Temperature :60+/-2°C 2) Relative Humidity :90-95% RH 3) Duration : 96 ±4 Hours 4) Recovery : then measured at room ambient temperature after placing 24 hours.
6.6 Resistance to Soldering Heat	1. No visible mechanical damage. 2. Inductance change: Within ±10%  Fig.6.6-1	1) Re-flowing Profile: Please refer to Fig.6.6-1 2) Test board thickness: 1.0mm 3) Test board material: glass epoxy resin 4) The chip shall be stabilized at normal condition for 1~2 hours before measuring
6.7 Thermal Shock	1. No visible mechanical damage. 2. Inductance change: Within ±10% 	1) Temperature and time: -40±3°C for 30±3 min →105°C for 30±3min, please refer to Fig.6.7-1. 2) Transforming interval: Max, 3 minute 3) Tested cycle: 100 cycles 4) The chip shall be stabilized at normal condition for 1~2 hours before measuring

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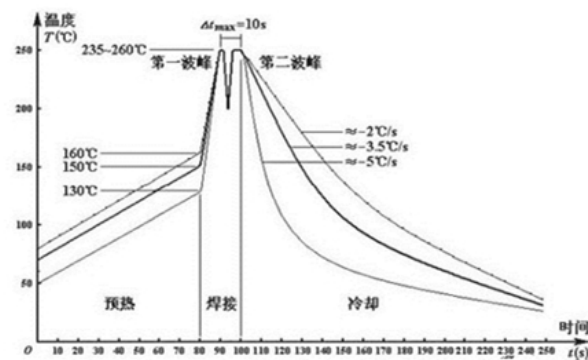
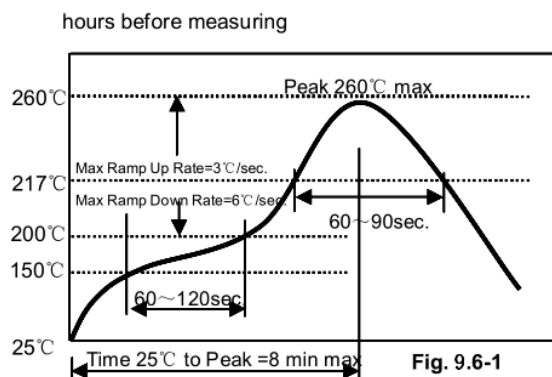
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7. Recommended reflow condition

推荐波峰焊曲线



8. Sample Test Data

TEST ITEM	L uH	DCR mΩ	L _{+30.5A} uH				
CONDITION	100KHz/0.1V	At 25°C	100KHz/0.1V				
SPEC	10±20%	2.4mΩ±10%	ΔL/L0≤30%				
1	10.1	2.31	19.7%				
2	10.1	2.32	15.3%				
3	10.1	2.32	18.0%				
4	10.1	2.32	20.7%				
5	10.1	2.33	20.2%				
X							
判定结果	OK	OK	OK				
REMARK:							
APPROVED BY 李庆辉		CHECKED BY 刘志坚		DRAWN BY 劳水花			

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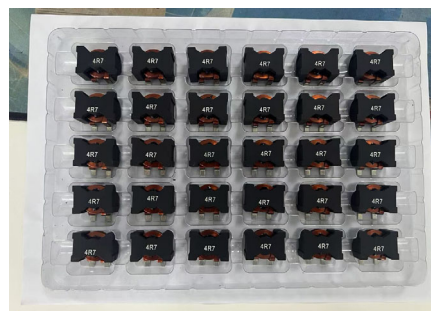
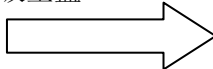
TYPE:

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9. Packing specification

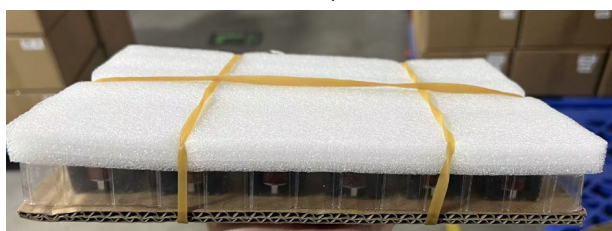


30 个产品装进
吸塑盒

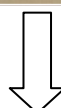


1 盒/扎

每盒下面放一个一样尺寸的纸皮，
上面放一个一样尺寸的珍珠棉，
用橡皮筋扎紧。



6 扎/箱



一箱装 6 扎，共 180PCS



每箱上下各放一块珍珠棉

注：吸塑盒尺寸：260mm*179mm*20mm
纸皮尺寸：260mm*179mm*5mm
珍珠棉尺寸（小）：260mm*179mm*15mm
珍珠棉尺寸（大）：370mm*260mm*15mm
外箱尺寸：385mm*285mm*180mm

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