

製品規格書

SPECIFICATION FOR APPROVAL



產品編碼 P/N	PDUUAT-series	測試設備 TEST INSTRUMENT	Keysight:E4991B Chroma:16502 3302
產品系列 Series	UU濾波器	測試頻率 TEST FREQUENCY	1KHZ / 0.3V

客戶名稱 :  
 Customer :  
  
 客戶編碼 :  
 Customer P/N :  
  
 產品系列 : UU濾波器  
 Series : UU Filter  
  
 產品編碼 : PDUUAT-series  
 Supply P/N :  
  
 發版號 : A2.2  
 Version :  
  
 承認日期 : 2022-9-15  
 Endorsement Date :  
  
 備註 :  
 Note :

譜羅德電子科技（深圳）有限公司 PuLuoDe Electronic Technology (Shenzhen) Co. LTD	
製作 APPROVED	Ben
審查 CHECKED	Yuki
確認 PREPARED	Peter

**客戶承認**  
**Customer Approval**

客戶簽章

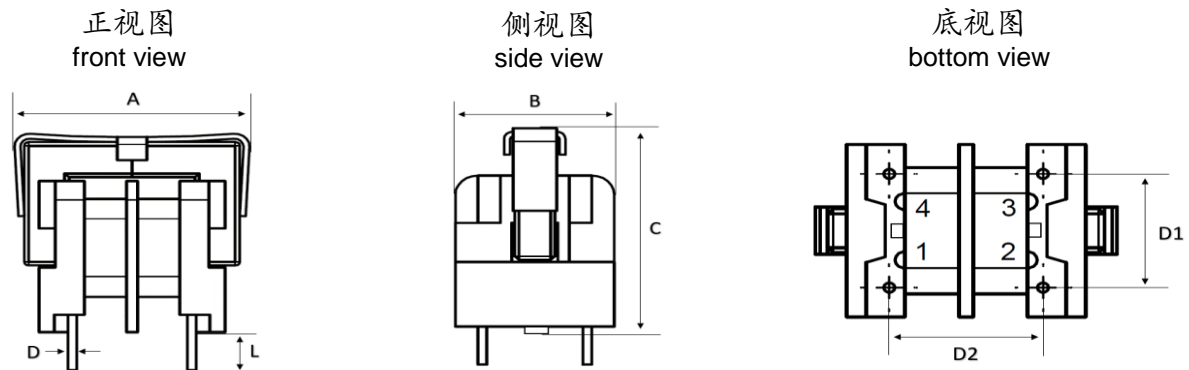




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### 封裝尺寸 (mm)

Dimension



系列 Series	封裝尺寸 Dimension							MPQ pcs/盒
	A	B	C	D	D1	D2	L	
UU9.8	17.0 Max	12.0 Max	17.0 Max	0.6 ± 0.05	7.0 ± 0.5	8.0 ± 0.5	4.0±0.5	450
UU10.5	19.5 Max	18.0 Max	23.0 Max	0.7 ± 0.05	10.5 ± 0.5	13.5 ± 0.5	4.0±0.5	260
UU16	22.0 Max	20.0 Max	28.5 Max	0.7 ± 0.05	10.5 ± 0.5	13.5 ± 0.5	4.0±0.5	187

### 編碼解釋

Code interpretation

<b>PDUUAT</b> 類別碼 Category code	<b>98</b> 尺寸系列 Dimension	<b>102</b> 感值 Inductance	<b>M</b> 精度 Tolerance	<b>L</b> 立式 Vertical type	<b>N</b> 標準品 Normal
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### 電氣參數

Electrical Characteristics

#### UU9.8 series

產品編碼 P/N	@ 25 °C Ambient Temperature						
	感值 Inductance	精度 Tolerance	DCR	額定電流 rated current	絕緣電阻 IR	耐壓 HI-POT	
	N1/N2	N1/N2	Ω	mA	MΩ	N1/N2	N1~C/N2~C
	mH	mH (Min)	Max		Min	AC 1KV	AC 1KV
PDUUAT98-201MLN	0.2	0.16	0.03	4500	100	AC/60Hz 1mA 3Sec	AC/60Hz 1mA 3Sec
PDUUAT98-501MLN	0.5	0.42	0.045	4000	100		
PDUUAT98-102MLN	1	0.8	0.09	3000	100		
PDUUAT98-202MLN	2	1.6	0.09	2500	100		
PDUUAT98-502MLN	5	4	0.26	2000	100		
PDUUAT98-103MLN	10	8	0.7	1000	100		
PDUUAT98-203MLN	20	16	1.2	600	100		
PDUUAT98-303MLY	30	30	0.9	800	100		
PDUUAT98-503MLN	50	42	2.5	250	100		
PDUUAT98-104MLN	100	80	5.2	100	100		



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## UU10.5 Series

產品編碼 P/N	@ 25 °C Ambient Temperature						
	感值 Inductance	精度 Tolerance	DCR	額定電流 rated current	絕緣電阻 IR	耐壓 HI-POT	
	N1/N2 mH	N1/N2 mH (Min)	Ω Max	mA	MΩ Min	N1/N2 AC 1KV	N1~C/N2~C AC 1KV
PDUUAT105-501MLN	0.5	0.42	0.02	8000	100	AC/60Hz 1mA 3Sec	AC/60Hz 1mA 3Sec
PDUUAT105-102MLN	1	0.8	0.02	8000	100		
PDUUAT105-202MLN	2	1.6	0.065	5000	100		
PDUUAT105-502MLN	5	4	0.1	4000	100		
PDUUAT105-103MLN	10	8	0.19	3000	100		
PDUUAT105-203MLN	20	16	0.35	2000	100		
PDUUAT105-303MLY	30	30	0.8	1000	100		
PDUUAT105-503MLN	50	42	1.1	1000	100		
PDUUAT105-104MLN	100	80	4	300	100		

## UU16 series

產品編碼 P/N	@ 25 °C Ambient Temperature						
	感值 Inductance	精度 Tolerance	DCR	額定電流 rated current	絕緣電阻 IR	耐壓 HI-POT	
	N1/N2 mH	N1/N2 mH (Min)	Ω Max	mA	MΩ Min	N1/N2 AC 1KV	N1~C/N2~C AC 1KV
PDUUAT16-102MLN	1	0.8	0.02	9000	100	AC/60Hz 1mA 3Sec	AC/60Hz 1mA 3Sec
PDUUAT16-202MLN	2	1.6	0.04	7500	100		
PDUUAT16-502MLN	5	4	0.08	6000	100		
PDUUAT16-103MLN	10	8	0.11	4500	100		
PDUUAT16-203MLN	20	16	0.25	3500	100		
PDUUAT16-503MLN	50	42	0.7	1500	100		
PDUUAT16-104MLN	100	80	2	1000	100		

- ◎ 規格參數基於環境溫度25°C取得  
All test Data is referenced to 25°C ambient
- ◎ 電感工作環境溫度：-40°C ~ 105°C  
Operating temperature range -40 °C to +105 °C
- ◎ 加載額定電流會使電感溫度上升大約 40°C (電感初始溫度+上升溫度=電感最終溫度)  
Typical Heat Rating DC Current would cause an approximately ΔT of 40°C
- ◎ 務必考慮最終的產品設計，元器件佈局，線路板走線，以及使用環境過程中，電感最終溫度不得超過105°C  
The operating temperature of inductance do not exceed 105°C
- ◎ 使用電感時，請查閱第6頁注意事項  
The announcements is on page 7



# 特性

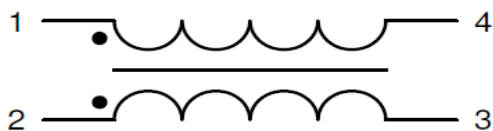
## CHARACTERISTICS



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### 電路結構

#### Connections



◎ 电感内置两组线圈

Inductor Contents Two (2) Set(s) of Coil

◎ 查看电感铜线线径请联系谱罗德索取单颗规格书

To check the diameter of copper wire, please contact PROD

### 內部構造

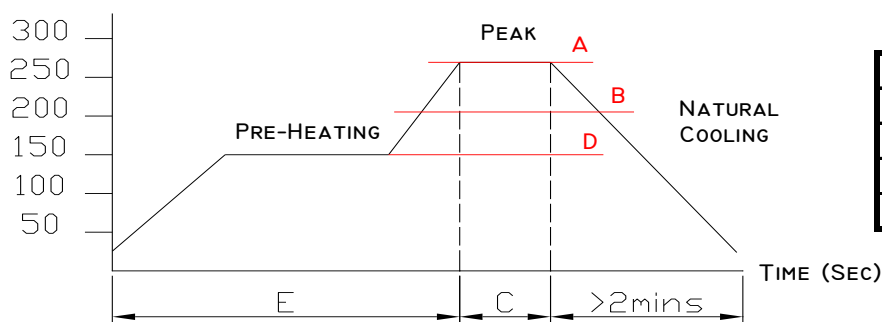
#### Internal Structure

NO.	材料 ITEM	材質規格 Material	製造商 Manufacturer	UL NO.
1	磁芯/Core	UU9.8/10.5/16铁氧体磁芯	HENGRUI MAGNETIC EL.(或等同廠商規格)	N.A
2	骨架/Bobbin	UU9.8/9.8/10.5/16电木骨架	HENGXING(或等同廠商規格)	N.A
3	漆包線/Wire	2UEW+F 155°C	PACIFIC(或等同廠商規格)	N.A
4	钢夹/Clip	UU9.8/10.5/16钢夹	CHUANGFU(或等同廠商規格)	N.A
5	凡立水/Varnish	C-2020 T-30	TAL CHEMICAL(或等同廠商規格)	N.A

### 焊接溫度（推荐）

#### Recommended Soldering Temperature Graph

TEMPERATURE (°C)

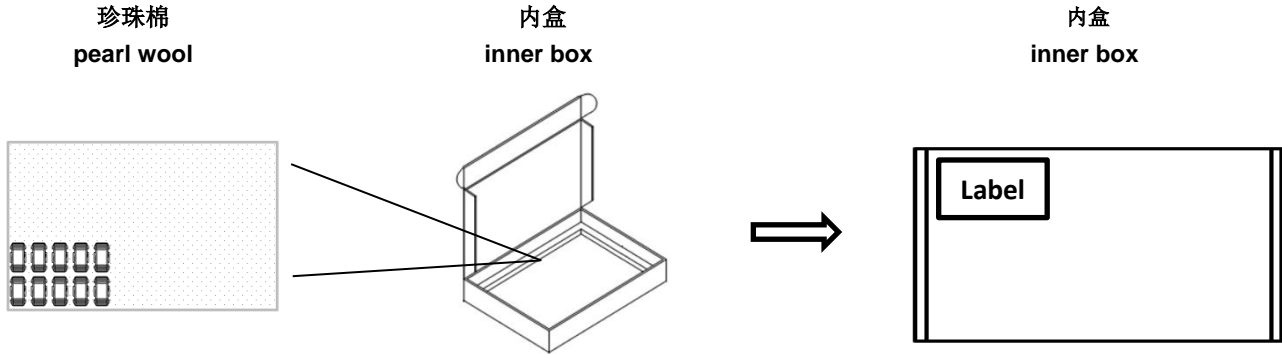


A	260°C
B	230°C
C	10 Sec
D	150°C
E	60~240 Sec

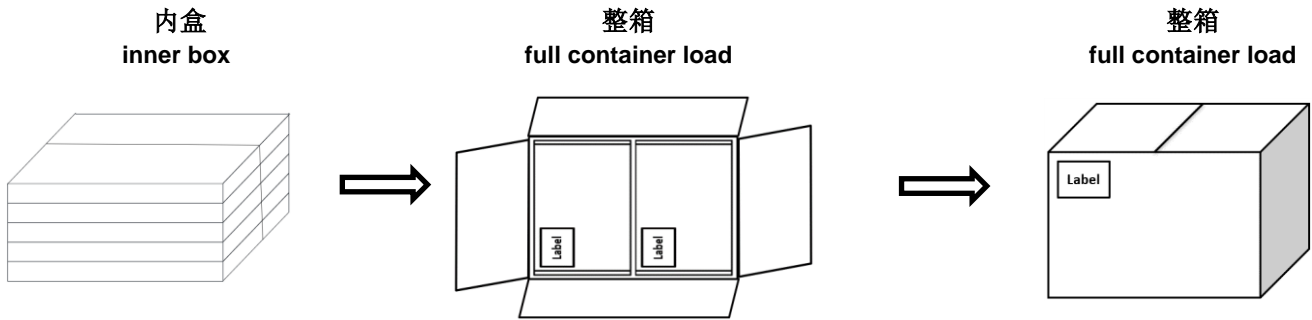


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內盒包裝  
MPQ packaging



外箱  
full container load



尺寸与数量  
Size and Quantity

系列 Series	UU9.8	UU10.5	UU16
最小包裝MPQ	450 pcs	260 pcs	187 pcs
整箱數量FCL	4500 pcs	2080 pcs	1496 pcs





## 注意事項

使用本產品時，請注意以下事項

- ◎ 產品保存期限為12個月，保存條件：溫度5~40℃，濕度10~75%RH以內，超過保存期限可能會使產品端子電極發生氧化。
- ◎ 請勿在極端環境下使用和保存（高鹽，強酸，強鹼，強輻射等）。
- ◎ 產品焊接前，請進行預熱；預熱溫度與焊接溫度之間溫差建議控制在150℃以內。
- ◎ 產品焊接後需重新拆卸焊接修正時，請遵循規格書規定的條件範圍；過高的加熱溫度以及反復的拆卸可能會導致產品失效。
- ◎ 產品請勿接觸清洗劑，酒精等液體，這會侵蝕產品本體，從而導致產品失效。
- ◎ 產品焊接到線路板後，請注意不可因線路板整體變形或局部變形而施加給電感剩餘應力，這可能會導致電感發生破裂，脫落，以致失效。
- ◎ 產品通電後溫度會隨電流的增大而上升，設計時請務必考慮留有餘量。
- ◎ 過高的靜電會對產品產生永久性損害，請注意靜電防護。
- ◎ 產品通電過程請勿觸摸產品任何部位，防止觸電。
- ◎ 本產品作為磁性產品，設計時請務必考慮周邊元器件與本產品可能產生的相互影響。
- ◎ 本產品適用於一般電子設備，如：AV設備，通信設備，家電產品，娛樂設備，電腦設備，個人設備，辦公設備，計測設備，工業機器人等。且該一般電子設備需在常規的操作和使用方法環境下使用。對於需要高度安全性和可靠性的，或者因本產品失效造成設備故障，誤操作，運轉不良等危及到人的生命身體及財產安全，以及對社會產生較大不良影響的特殊用途，設計使用前務必同本公司溝通，設計使用者如未取得我司書面同意狀況下使用造成任何後果，我司不予承擔。特殊用途包含但不限定如下清單：
  - 1 軍用設備
  - 2 運輸設備（汽車，軌道交通產品，船舶等）
  - 3 航空，航太設備
  - 4 發電控制設備
  - 5 核動力相關設備
  - 6 爆炸引燃控制設備
  - 7 交通控制設備
  - 8 關係到國防安全的設備
  - 9 其他被認定為特殊用途的設備





## ANNOUNCEMENTS

Please read this before using the product.

- © The product storage life is 12 months, Storage Temperature: TEMP.5~40°C; RH10%~75%. Please use the product within the warranty period
- © Do not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, radiation etc.) .
- © Before soldering, be sure to preheat components:The preheating temperature should be set so that The temperature difference between the solder temperature and chip temperature does not exceed 150° C.
- © Soldering corrections after mounting should be within the range of the conditions determined in the specifications. If overheated, a short circuit, performance deterioration, or lifespan shortening may occur. Repeated disassembly may invalidate the inductance
- © The cleaning agent can not be used for these products. This may corrode the inductor
- © When embedding a printed circuit board where a chip is mounted to a set, be sure that residual stress is not given to the chip due to the overall distortion of the printed circuit board and partial distortion such as at screw tightening portions.
- © Self heating (Rated Current or Irms) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- © Too high static electricity will cause permanent damage to the product, please pay attention to electrostatic protection.
- © As a magnetic product, the design must consider the possible interaction between peripheral components and the product.

- © The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.

The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property.

If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in the each catalog, please contact PROD. Otherwise, PROD will not bear the serious consequences caused by product quality problems

- |  |   |
|--|---|
| 1 Military equipment                                   | 8 Medical equipment   |
| 2 Transportation equipment (cars, trains, ships, etc.) | 9 Other applications that are not considered general-purpose applications |
| 3 Aerospace/aviation equipment                         |   |
| 4 Power-generation control equipment                   |   |
| 5 Atomic energy-related equipment                      |   |
| 6 Explosive ignition control equipment                 |   |
| 7 Transportation control equipment                     |   |





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