

製品規格書

SPECIFICATION FOR APPROVAL



產品編碼 P/N	PDSH-series	測試設備 TEST INSTRUMENT	Chroma:3302 16502
產品系列 Series	色环电感	測試頻率 TEST FREQUENCY	1KHZ / 0.25V

客戶名稱 :  
 Customer :  
  
 客戶編碼 :  
 Customer P/N :  
  
 產品系列 : 色环电感  
 Series :  
  
 產品編碼 : PDSH-series  
 Supply P/N :  
  
 發版號 : A2.0  
 Version :  
  
 承認日期 : 2022-9-16  
 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
(Blank area for signature)

客戶簽章





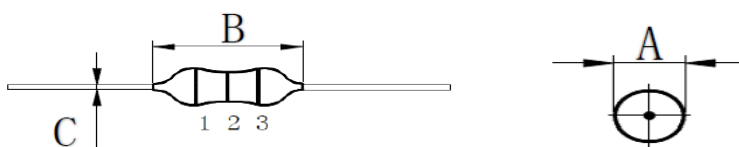
產品編碼 P/N	PDSH-series	測試設備 TEST INSTRUMENT	Chroma:3302 16502
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## 編碼解釋

Code interpretation

<b>PDSH</b>	-	<b>0512I</b>	-	<b>472</b>	-	<b>K</b>
類別碼		尺寸系列		感值		精度
Category code		Dimension		Inductance		tolerance

封裝尺寸 (mm)  
Dimension



系列	封裝尺寸 Dimension			MPQ
Series	A	B	C	pcs/袋
0307	Ø3.2 Max	7.0 Max	Ø0.50±0.1	3000pcs
0410	Ø4.0 Max	10.0 Max	Ø0.55±0.05	2000pcs
0512	Ø5.0 Max	12.5 Max	Ø0.55±0.05	1000pcs

- © 规格参数基于环境温度25℃所得  
All test Data is referenced to 25℃ ambient
- © 加载額定电流会使产品本体温度大约上升 40℃ (电感初始温度+上升温度=电感最终承受温度)  
Typical Rated Current would cause an approximately  $\Delta T$  of 40℃
- © 电感工作环境温度：-25℃ ~ 85℃  
Operating temperature range -25℃ to +85℃
- © 务必考虑最终产品设计，元器件布局，线路板走线，以及使用环境等过程中，电感本体最高温度不得超过85℃  
The operating temperature of inductance do not exceed 85℃
- © 产品注意事项请参阅规格书第9页  
The announcements is on page 10

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產品系列 Series	色环电感	測試頻率 TEST FREQUENCY	1KHZ / 0.25V

封裝尺寸 (mm)  
Dimension



系列	封裝尺寸 Dimension			MPQ
Series	A	B	C	pcs/袋
0307	Ø3.2 Max	7.0 Max	Ø0.50±0.1	3000pcs

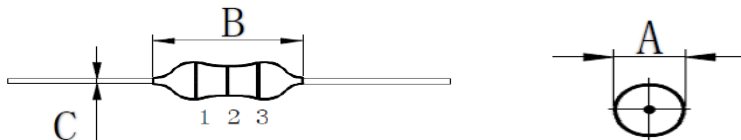
## 電氣參數

Electrical Characteristics

產品編碼 P/N	@ 25 °C Ambient Temperature				
	感值	精度	額定電流	自諧頻率	DCR
	Inductance	tolerance	Rated current	S. R. F	Ω
	µH	(±)	mA	MHZ	Max
			ΔT≈40°C		
PDSH03071-1R0M	1	20%	740	150	0.15
PDSH03071-1R5M	1.5	20%	700	150	0.2
PDSH03071-2R2M	2.2	20%	630	110	0.27
PDSH03071-3R3M	3.3	20%	575	70	0.3
PDSH03071-4R7M	4.7	20%	530	50	0.35
PDSH03071-5R6M	5.6	20%	500	32	0.4
PDSH03071-6R8M	6.8	20%	470	28	0.48
PDSH03071-8R2M	8.2	20%	425	23	0.56
PDSH03071-100M	10	20%	370	22	0.75
PDSH03071-150M	15	20%	335	16	0.93
PDSH03071-220M	22	20%	285	13	1.2
PDSH03071-330M	33	20%	255	10	2.1
PDSH03071-470M	47	20%	205	8.5	2.6
PDSH03071-680M	68	20%	185	6.5	3.3
PDSH03071-101K	100	10%	165	5.5	4.2
PDSH03071-151K	150	10%	150	4.7	5.4
PDSH03071-221K	220	10%	130	4	7
PDSH03071-331K	330	10%	100	3.4	11
PDSH03071-471K	470	10%	90	2.5	14
PDSH03071-681K	680	10%	75	2	25
PDSH03071-102K	1000	10%	50	0.9	36

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封裝尺寸 (mm)  
Dimension



系列	封裝尺寸 Dimension			MPQ
Series	A	B	C	pcs/袋
0410	Ø4.0 Max	10.0 Max	Ø0.55±0.05	2000pcs

## 電氣參數

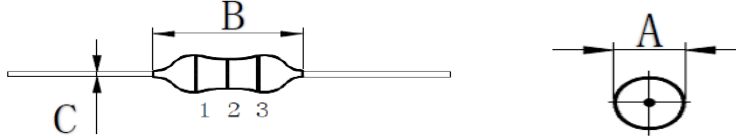
## Electrical Characteristics

產品編碼 P/N	@ 25 °C Ambient Temperature				
	感值	精度	額定電流	自諧頻率 S. R. F	DCR
	Inductance	tolerance	Rated current		Ω
µH	(±)	mA	MHZ	Max	
PDSH0410I-1R0M	1	20%	920	157	0.17
PDSH0410I-1R5M	1.5	20%	830	110	0.2
PDSH0410I-2R2M	2.2	20%	750	110	0.24
PDSH0410I-3R3M	3.3	20%	670	94	0.3
PDSH0410I-4R7M	4.7	20%	620	80	0.4
PDSH0410I-5R6M	5.6	20%	590	74	0.43
PDSH0410I-6R8M	6.8	20%	550	68	0.48
PDSH0410I-8R2M	8.2	20%	530	53	0.52
PDSH0410I-100M	10	20%	500	40	0.58
PDSH0410I-150M	15	20%	460	20	0.72
PDSH0410I-220M	22	20%	410	10	0.9
PDSH0410I-330M	33	20%	370	6.5	1
PDSH0410I-470M	47	20%	340	6.5	1.2
PDSH0410I-680M	68	20%	310	6	1.45
PDSH0410I-101K	100	10%	300	4.8	1.8
PDSH0410I-151K	150	10%	220	3.5	2.8
PDSH0410I-221K	220	10%	200	3	3.5
PDSH0410I-331K	330	10%	170	2.6	4.2
PDSH0410I-471K	470	10%	150	2.3	5.5
PDSH0410I-561K	560	10%	130	2.1	7.7
PDSH0410I-681K	680	10%	120	2	8
PDSH0410I-821K	820	10%	110	1.85	11.8
PDSH0410I-102K	1000	10%	100	1.5	14
PDSH0410I-222K	2200	10%	75	0.8	28
PDSH0410I-332K	3300	10%	65	0.65	37
PDSH0410I-472K	4700	10%	55	0.6	35



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封装尺寸 (mm)  
Dimension



系列	封装尺寸 Dimension			MPQ
Series	A	B	C	pcs/袋
0512	Ø5.0 Max	12.5 Max	Ø0.55±0.05	1000pcs

## 電氣參數

Electrical Characteristics

產品編碼 P/N	@ 25 °C Ambient Temperature				
	感值 Inductance	精度 tolerance	額定電流 Rated current	自諧頻率 S. R. F	DCR
			mA		Ω
			$\Delta T \approx 40^\circ\text{C}$		Max
$\mu\text{H}$	( $\pm$ )		MHZ		
PDSH0512I-1R0M	1	20%	2400	120	0.05
PDSH0512I-1R5M	1.5	20%	2300	96	0.06
PDSH0512I-2R2M	2.2	20%	2200	95	0.07
PDSH0512I-3R3M	3.3	20%	1900	78	0.08
PDSH0512I-4R7M	4.7	20%	1600	69	0.1
PDSH0512I-5R6M	5.6	20%	1500	57	0.11
PDSH0512I-6R8M	6.8	20%	1300	47	0.13
PDSH0512I-8R2M	8.2	20%	1200	35	0.13
PDSH0512I-100M	10	20%	1100	22	0.14
PDSH0512I-150M	15	20%	1000	16	0.26
PDSH0512I-220M	22	20%	950	8	0.3
PDSH0512I-330M	33	20%	900	6	0.35
PDSH0512I-470M	47	20%	800	5.5	0.4
PDSH0512I-680M	68	20%	700	4	0.45
PDSH0512I-101K	100	10%	620	3.5	0.5
PDSH0512I-151K	150	10%	500	3	0.8
PDSH0512I-221K	220	10%	420	2.6	1.2
PDSH0512I-331K	330	10%	330	2.2	2.2
PDSH0512I-471K	470	10%	290	1.9	2.5
PDSH0512I-561K	560	10%	270	1.8	2.9
PDSH0512I-681K	680	10%	250	1.5	3.4
PDSH0512I-821K	820	10%	230	1.2	3.6
PDSH0512I-102K	1000	10%	210	1	4
PDSH0512I-222K	2200	10%	150	0.8	9.5
PDSH0512I-332K	3300	10%	120	0.7	13
PDSH0512I-472K	4700	10%	100	0.6	20
PDSH0512I-682K	6800	10%	90	0.45	30
PDSH0512I-103K	10000	10%	60	0.35	48

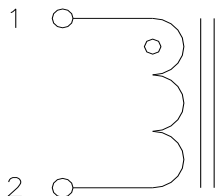


# 特性 CHARACTERISTICS



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## 電路結構 Connections

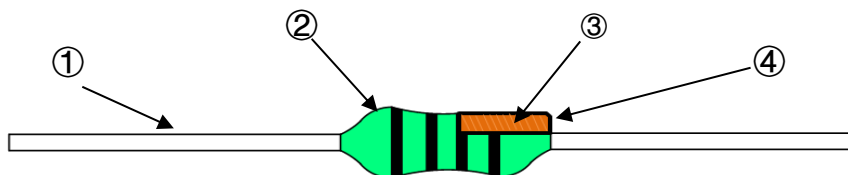


◎ 电感内置一组线圈  
Inductor Contents ONE (1) Set(s) of Coil

## 實物展示 picture



## 材料清單 Material List

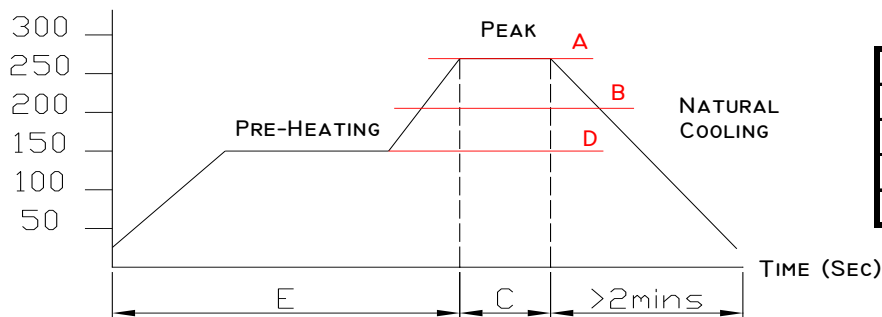


NO.	結構 Structure Name	材料規格 Material Name	材料製造商 Material Manufacturer	UL NO.
①	引腳/PIN	φ 0.55/0/5mm	XIN GUAN (或等同廠商規格)	N. A
②	漆包膜/Epoxy Resin	NC-G	HOU DA (或等同廠商規格)	N. A
③	漆包線/Wire	2UEW-155°C	PACIFIC (或等同廠商規格)	E344055
④	磁芯/Core	3x7/4x8/5x12mm	JING WEI (或等同廠商規格)	N. A

## 焊接溫度 (推荐)

### Recommended Soldering Temperature Graph

TEMPERATURE (°C)



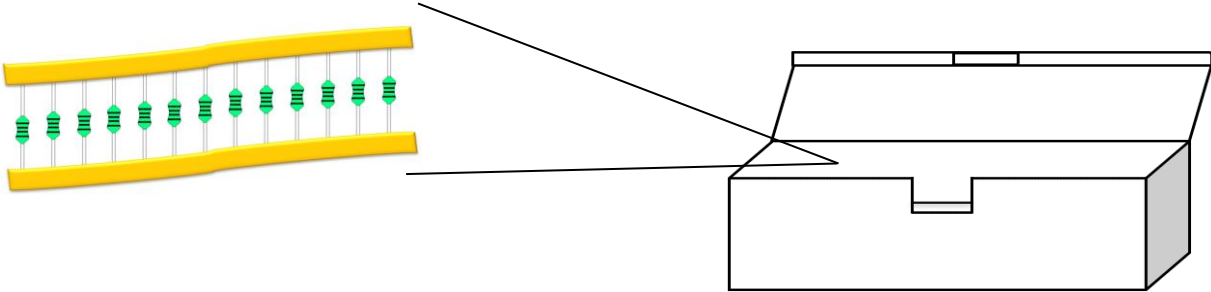
A	260°C
B	230°C
C	10 Sec
D	150°C
E	60~240 Sec



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### 内盒包装

#### MPQ packaging

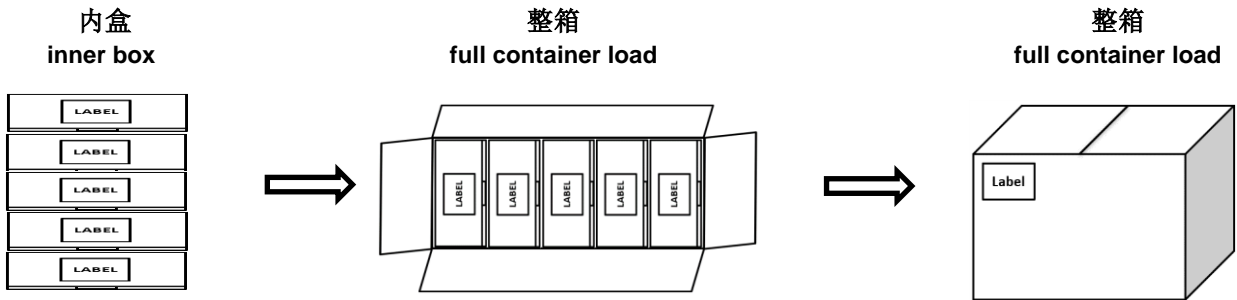


产品使用胶带编制固定，叠放至盒子内 盒子尺寸：25x10x7cm

Both ends of the product are fixed with adhesive tape, Lay it flat inside the box, box size:25x10x7cm

### 外箱

#### full container load



每箱装5小盒 外箱尺寸：

5 inner box/full container load, outer box size

### 包装数量与尺寸

#### Package Quantity and Size

系列 series	0307	0410	0512
最小包装 MPQ	3000	2000	1000
整箱数量 FCL	15000	10000	5000





## 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，設計使用者如在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：
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  - 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.  
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- |  |   |
|--|---|
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| 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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