

產品編碼 P/N	PDPTAT-series	測試設備 TEST INSTRUMENT	Chroma:3302/16502
產品系列 Series	插件工字电感	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  
Series

插件工字电感  
DIP Power Inductor

產品編碼  
Supply P/N

:

PDPTAT-series

發版號  
Version

:

A2.0

承認日期  
Endorsement Date

:

2022-9-16

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

修訂記錄  
REVISION RECORD



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Version	REVISION ITEM	BEFORE REVISION	AFTER REVISION	DATE
A1.0	首次發行			2022-9-16



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### 封裝尺寸 Dimension (mm)



系列	封裝尺寸 Dimension					MPQ
	A	B	C	D	E	pcs/袋
0507	7.0 Max	9 Max	10 Min	0.55±0.1	2.5±0.5	1000pcs
0608	7.5 Max	10 Max	10 Min	0.55±0.1	3.0±0.5	500pcs
0810	9.5 Max	12 Max	10 Min	0.6±0.1	5.0±0.5	250pcs
0812	9.5 Max	14 Max	10 Min	0.6±0.1	5.0±0.5	250pcs
0912	12 Max	14 Max	10 Min	0.6±0.1	6.0±0.5	200pcs
1012	13 Max	15.5 Max	10 Min	0.8±0.1	6.0±0.5	200pcs
1016	13 Max	19 Max	10 Min	0.8±0.1	6.0±0.5	100pcs

### 編碼解釋

Code interpretation

<b>PDPTAT</b>	-	<b>0810</b>	-	<b>102</b>	-	<b>K</b>
類別碼		尺寸系列		感值		精度
Category code		Dimension		Inductance		tolerance

- ◎ 规格参数基于环境温度25℃所得  
All test Data is referenced to 25℃ ambient
- ◎ 加载温升电流 (Irms) 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 Heat Rating DC Current would cause an approximately ΔT of 40℃
- ◎ 加载饱和电流 (ISAT) 会使感值下降大约 30%  
Typical Saturation DC Current would cause Lo to drop approximately 30%
- ◎ 请从温升电流 (IRMS) 与饱和电流 (ISAT) 中选择一个最小值作为额定电流  
Choose a minimum of IRMS and ISAT as the rated current
- ◎ 电感工作环境温度: -40℃ ~ 105℃  
Operating temperature range -40 °C to +105 °C
- ◎ 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105℃  
The operating temperature of inductance do not exceed 105℃
- ◎ 产品注意事项请参阅规格书第8页  
The announcements is on page 9

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## 電氣參數

## Electrical Characteristics

產品編碼 P/N	@ 25 °C Ambient Temperature					
	感值	精度	溫升電流 I <sub>rms</sub>	飽和電流 I <sub>SAT</sub>	DCR	
	Inductance	tolerance	mA	mA	Ω	
	μH	±	ΔT≈40°C	L0 drop≈30%	Typ	Max
PDPTAT0608-1R0M	1	20%	7000	9000	0.01	0.014
PDPTAT0608-1R5M	1.5	20%	6300	8500	0.0105	0.015
PDPTAT0608-2R2M	2.2	20%	5400	7000	0.013	0.017
PDPTAT0608-3R3M	3.3	20%	4900	5500	0.0155	0.021
PDPTAT0608-4R7M	4.7	20%	4600	4800	0.018	0.022
PDPTAT0608-5R6M	5.6	20%	4300	4500	0.02	0.025
PDPTAT0608-6R8M	6.8	20%	3600	4000	0.026	0.033
PDPTAT0608-8R2M	8.2	20%	3300	3500	0.03	0.037
PDPTAT0608-100M	10	20%	3000	3100	0.036	0.045
PDPTAT0608-150M	15	20%	3100	2700	0.045	0.055
PDPTAT0608-220M	22	20%	2500	2100	0.06	0.072
PDPTAT0608-330M	33	20%	2000	1700	0.09	0.11
PDPTAT0608-470M	47	20%	1600	1400	0.132	0.15
PDPTAT0608-560M	56	20%	1500	1200	0.138	0.155
PDPTAT0608-680M	68	20%	1400	1000	0.15	0.17
PDPTAT0608-820M	82	20%	1200	900	0.2	0.23
PDPTAT0608-101K	100	10%	1100	820	0.242	0.27
PDPTAT0608-151K	150	10%	900	700	0.343	0.37
PDPTAT0608-221K	220	10%	750	550	0.5	0.54
PDPTAT0608-331K	330	10%	600	440	0.78	0.83
PDPTAT0608-471K	470	10%	510	370	1.1	1.3
PDPTAT0608-681K	680	10%	450	320	1.45	1.7
PDPTAT0608-821K	820	10%	370	280	1.6	1.8
PDPTAT0608-102K	1000	10%	300	240	2.4	2.7
PDPTAT0608-152K	1500	10%	250	200	3.85	4.2
PDPTAT0608-222K	2200	10%	210	170	4.8	5.2
PDPTAT0608-332K	3300	10%	180	130	7	7.6
PDPTAT0608-472K	4700	10%	150	110	11	13
PDPTAT0608-682K	6800	10%	110	90	21	23
PDPTAT0608-103K	10000	10%	100	70	27	30



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## 電氣參數

## Electrical Characteristics

產品編碼 P/N	@ 25 °C Ambient Temperature					
	感值 Inductance	精度 tolerance	溫升電流 I <sub>rms</sub>	飽和電流 ISAT	DCR	
			mA	mA	Ω	
	μH	±	ΔT≈40°C	L0 drop≈30%	Typ	Max
PDPTAT0810-1R0M	1	20%	8000	14000	0.009	0.013
PDPTAT0810-1R5M	1.5	20%	7500	12000	0.01	0.014
PDPTAT0810-2R2M	2.2	20%	7000	11000	0.011	0.015
PDPTAT0810-3R3M	3.3	20%	5400	7000	0.013	0.018
PDPTAT0810-4R7M	4.7	20%	5200	6800	0.016	0.019
PDPTAT0810-5R6M	5.6	20%	5000	6200	0.0165	0.023
PDPTAT0810-6R8M	6.8	20%	4700	5600	0.018	0.024
PDPTAT0810-8R2M	8.2	20%	4500	5300	0.0194	0.024
PDPTAT0810-100M	10	20%	4000	4200	0.022	0.028
PDPTAT0810-150M	15	20%	3300	2900	0.032	0.037
PDPTAT0810-220M	22	20%	3000	2400	0.045	0.052
PDPTAT0810-330M	33	20%	2700	2000	0.05	0.06
PDPTAT0810-470M	47	20%	2300	1700	0.073	0.085
PDPTAT0810-560M	56	20%	2100	1500	0.085	0.1
PDPTAT0810-680M	68	20%	1900	1300	0.105	0.12
PDPTAT0810-101K	100	10%	1400	1000	0.13	0.16
PDPTAT0810-221K	220	10%	1000	750	0.34	0.38
PDPTAT0810-331K	330	10%	850	650	0.45	0.52
PDPTAT0810-471K	470	10%	720	550	0.7	0.8
PDPTAT0810-681K	680	10%	600	420	0.91	1.1
PDPTAT0810-821K	820	10%	500	350	1.1	1.35
PDPTAT0810-102K	1000	10%	420	300	1.2	1.5
PDPTAT0810-222K	2200	10%	350	250	3	3.5
PDPTAT0810-472K	4700	10%	270	190	6.4	7.5
PDPTAT0810-103K	10000	10%	200	140	14	16



電氣特性

ELECTRICAL CHARACTERISTICS



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電氣參數

Electrical Characteristics

產品編碼 P/N	@ 25 °C Ambient Temperature					
	感值	精度	溫升電流 I <sub>rms</sub>	飽和電流 ISAT	DCR	
	Inductance µH	tolerance ±	mA △T ≈ 40°C	mA L0 drop ≈ 30%	Ω Typ    Max	
PDPTAT0812-102K	1000	10%	500	500	1.5	1.8
PDPTAT0912-101K	100	10%	2500	2000	89	110
PDPTAT1012-102K	1000	10%	550	500	0.82	1
PDPTAT1016-101K	100	10%	3000	2200	0.081	0.1
PDPTAT1016-220K	220	10%	1900	1400	0.184	0.21



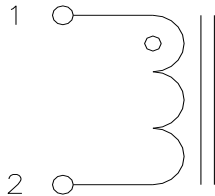
譜羅德電子科技（深圳）有限公司  
PuLuoDe Electronic Technology (Shenzhen) Co., LTD  
深圳市寶安區石岩三聯工業區B棟311

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### 電路結構 Connections

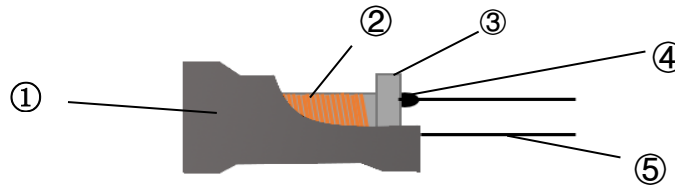


### 實物展示 picture



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

### 材料清單 Material List

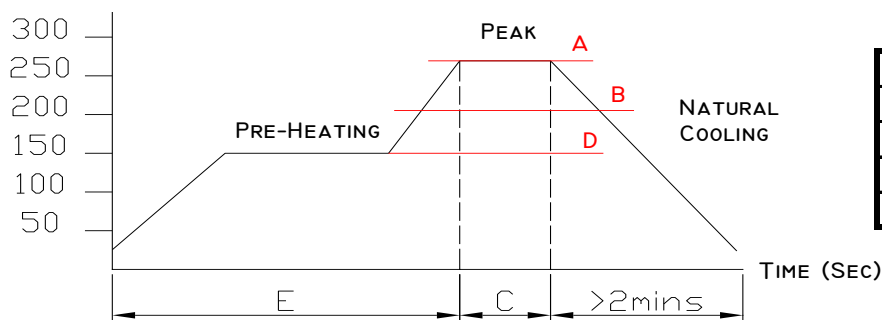


NO.	結構 Structure Name	材料規格 Material Name	材料製造商 Material Manufacturer	UL NO.
①	套管/Cover Tube	黑色套管/Black Cover Tube	SHENZHEN XINGQI PLASTIC PRODUCTS CO., LTD.	E209436
②	銅線/Copper Wire	2UEW 155°C	BOLUO XIN LONG ELECTRICIAN DATA CO LTD	E229423
③	磁芯/Core	鐵氧體磁芯/Ferrite Core	DONGGUAN FENGHE ELECTRONICS CO., LTD	N. A
④	膠水/Varnish	E962	ZHUHAI CHANGXIAN CHEMICAL CO, LTD	N. A
⑤	電極/Electrode	Sn-Cu0.7	The high tin (huizhou) co., LTD	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





## 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：
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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.
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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.  
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- |  |   |
|--|---|
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