

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



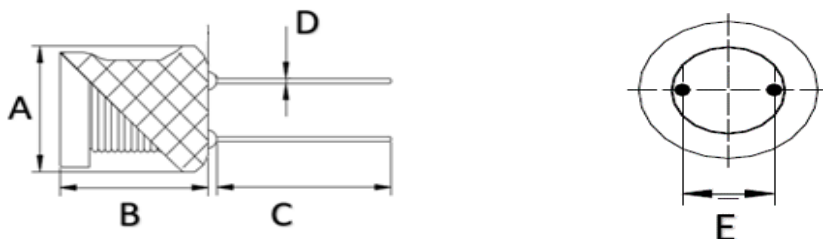
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Version	REVISION ITEM	BEFORE REVISION	AFTER REVISION	DATE
A1.0	首次發行			2022-9-16



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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

PDPTAT	-	0810	-	102	-	K
<u>類別碼</u>		<u>尺寸系列</u>		<u>感值</u>		<u>精度</u>
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
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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 _{rms}	飽和電流 I _{SAT}	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 _{rms}	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

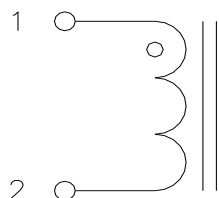
Electrical Characteristics

產品編碼 P/N	@ 25 °C Ambient Temperature					
	感值	精度	溫升電流	飽和電流	DCR	
	Inductance	tolerance	I _{rms}	ISAT	Ω	
	µH	±	mA ΔT ≈ 40°C	mA L0 drop ≈ 30%	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



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電路結構 Connections

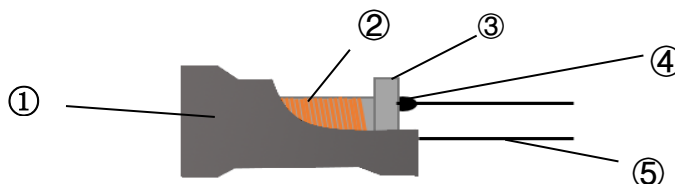


實物展示 picture



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

材料清單 Material List

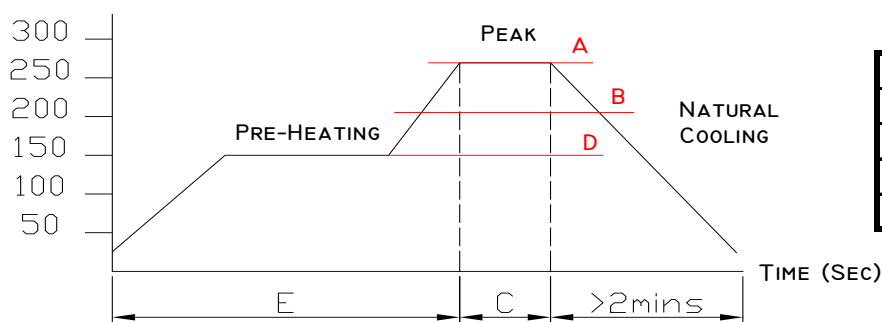


NO.	結構 Structure Name	材料規格 Material Name	材料製造商 Material Manufacturer	UL NO.
①	套管/Cover Tube	黑色套管/Black Cover Tube	SHENZHEN XINGQI PLASTIC PRODUCTS CO., LTD.	E209436
②	銅線/Copper Wire	2UEW 155°C	BOLUO XIN LONG ELECTRICIAN DATA CO LTD	E229423
③	磁芯/Core	鐵氧體磁芯/Ferrite Core	DONGGUAN FENGHE ELECTRONICS CO., 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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 - 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.
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- | | |
|--|---|
| 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 | |
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[1812LS-824XJ](#) [NIN-FB101JTR110F](#) [NIN-FB471JTR62F](#) [NIN-FC1R5JTR220F](#) [NIN-HCR15JTRF](#) [NIN-HCR33JTRF](#) [NIN-HDR22JTRF](#)