

產品編碼 P/N	PDPTAT0810-221K	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

PDPTAT0810-221K

發版號

Version

A2.0

承認日期

Endorsement Date

2021-11-19

備註

Note

譜羅德電子科技（深圳）有限公司 PROD 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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深圳市寶安區石岩三聯工業區B棟311

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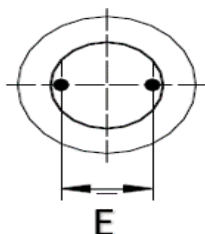
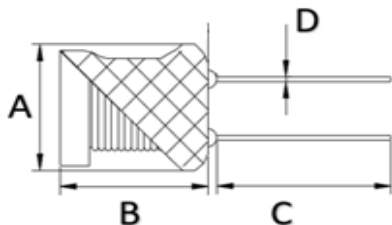
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封裝尺寸 (mm)

Dimension



0810	封裝尺寸 Dimension
A	9.5 Max
B	12 Max
C	10 Min
D	0.6 ± 0.05
E	5.2 Ref
MPQ	250pcs/袋裝

編碼解釋

Code interpretation

PDPTAT	-	0810	-	221	-	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

電氣參數

Electrical Characteristics

產品編碼 P/N	@ 25 °C Ambient Temperture					
	感值	精度	溫升電流 Irms	飽和電流 ISAT	DCR	
	Inductance	tolerance	mA	mA	Ω	
	μH	±	ΔT≈40℃	L0 drop≈30%	Typ	Max
PDPTAT0810-221K	220	10%	600	1600	0.34	0.38

- ◎ 規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%
- ◎ 工作电流 (IDC) 取值于温升电流 (Irms) 与饱和电流 (ISAT) 二者最小值
IDC depends on the minimum value between Irms and ISAT
- ◎ 电感工作环境温度: -25℃ ~ 105℃
Operating temperature range -25 °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℃
- ◎ 参考产品开发设计实测尺寸, 感值, DCR等数据, 请参考规格书第5页
The Dimension, Inductance, DCR test data is on page 5
- ◎ 产品注意事项请参阅规格书第6页
The announcements is on page 7

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特性

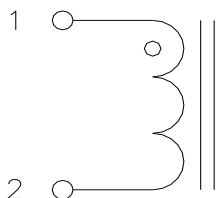
CHARACTERISTICS



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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
- ◎ 电感使用不需要区分正负方向
DC/AC Current Shall Be Introduced By Any One of Two Pads

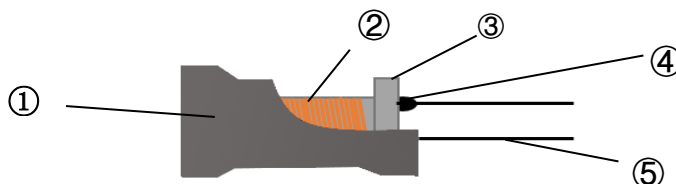
實物展示

picture



材料清單

Material List

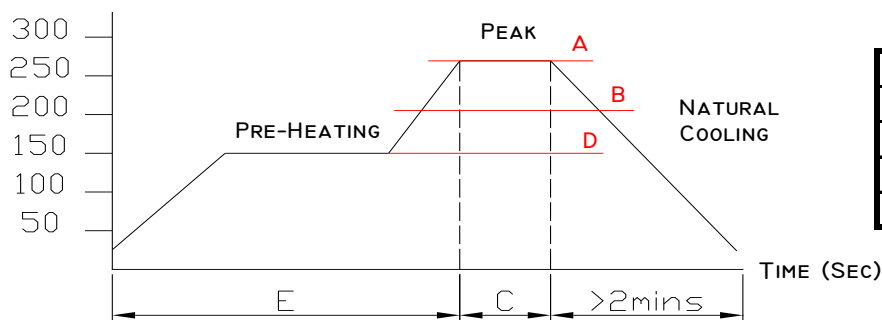


NO.	結構 Structure Name	材料規格 Material Name	材料製造商 Material Manufacturer	UL NO.
①	套管/Cover Tube	黑色套管/Black Cover Tube	SHENZHEN XINGQI PLASTIC PRODUCTS CO., LTD.	E209436
②	銅線/Copper Wire	2UEW 155°C	BOLUO XIN LONG ELECTRICIAN DATA CO LTD	E229423
③	磁芯/Core	8x10鐵氧體磁芯/Ferrite Core 8x10	DONGGUAN FENGHE ELECTRONICS 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



測試數據

TEST REPORT



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測試數據

Test Date

序號	尺寸測試數據 Dimension Test Date					特性測試數據 Characteristics Test Date		
	A	B	C	D	E	DCR	Lo	ISAT
	mm	mm	mm	mm	mm	ΩMax	uH±20%	mA
	9.5 Max	12 Max	10 Min	0.6 ± 0.05	5.2 Ref	0.38	220.00	≈30%
1	8.61	11.05	12.73	0.61	5.15	0.341	216	PASS
2	8.63	11.10	12.21	0.60	4.96	0.339	217	PASS
3	8.63	11.06	13.06	0.59	4.92	0.343	216	PASS
4	8.65	11.18	12.07	0.56	5.03	0.347	219	PASS
5	8.60	11.04	12.43	0.59	4.80	0.342	216	PASS
6	8.82	11.11	12.53	0.57	4.99	0.339	217	PASS
7	8.76	0.06	12.16	0.56	5.02	0.346	219	PASS
8	8.80	11.08	12.65	0.58	4.92	0.341	219	PASS
9	8.69	11.15	13.14	0.57	4.95	0.343	217	PASS
10	8.71	11.23	12.63	0.59	5.06	0.341	217	PASS
$\bar{X}$	8.69	10.01	12.56	0.58	4.98	0.3422	217.3	
R	0.22	11.17	1.07	0.05	0.35	0.008	3	

◎ 所有测试数据基于环境温度25℃取得
All test Data is referenced to 25℃ ambient

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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

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ANNOUNCEMENTS

Please read this before using the product.

- © The product storage life is 12 months, Storage Temperature: TEMP.5~40℃; 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 us. Otherwise, our

- | | |
|--|---|
| 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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