

製品規格書
SPECIFICATION FOR APPROVAL

產品編碼 P/N	PDMTAT5728F-221MLG	測試設備 TEST INSTRUMENT	Chroma:16502 3302
產品系列 Series	磁环电感	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

磁环电感

Magnet

產品編碼

Supply P/N

PDMTAT5728F-221MLG

發版號

Version

A2.0

承認日期

Endorsement Date

2022-11-16

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

* 煩請貴司在正式订单下达前确认回签本承诺书，否则敝司默认贵司认可本承诺书内的参数与条款，并以此参数生产交货

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客戶簽章



修訂記錄

REVISION RECORD



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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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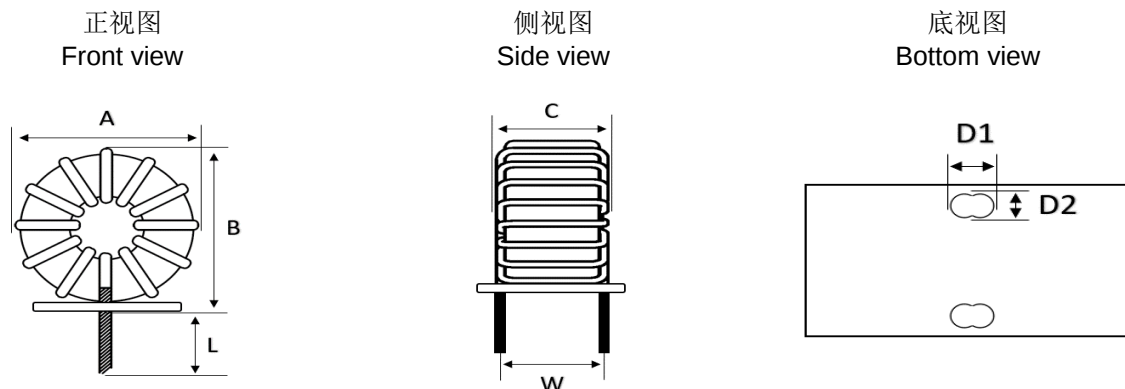
<https://www.prodtech.cn/>



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封裝尺寸 (mm)

Dimension



系列 Series	封裝尺寸 Dimension							MPQ
	A	B	C	D1	D2	L	W	
5728	55.0 MAX	55.0 MAX	28.0 MAX	3.2±0.3	1.6±0.3	8.0±2	20.0±1	12pcs/托盤

編碼解釋

Code interpretation

PDMTAT	5728F	221	M	L	G
類別碼	尺寸系列	感值	精度	立式	帶底板
Category code	Dimension	Inductance	Tolerance	Vertical type	plastic plate

電氣參數

Electrical Characteristics

產品編碼 P/N	@ 25 °C Ambient Temperture				
	感值	精度	DCR	耐壓 HI-POT	額定電流 Rated Current
	Inductanc	Toleranc	mΩ	PIN1~C/PIN2~C	
	μH	±	Max	AC600V	
PDMTAT5728F-221MLG	220	20%	9	AC/60Hz 1mA 3Sec	26

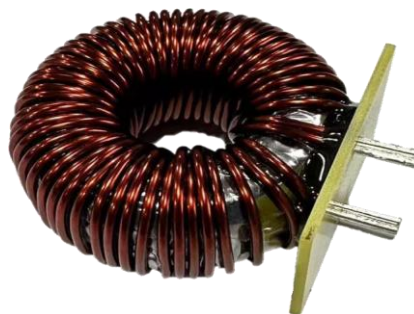
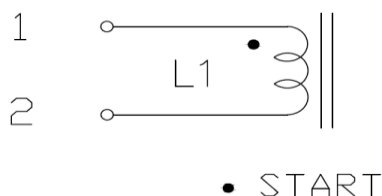
- ◎ 規格參數基於環境溫度25℃取得
All test Data is referenced to 25℃ ambient
- ◎ 電感工作環境溫度：-40℃ ~ 105℃
Operating temperature range -40 °C to +105 °C
- ◎ 加載額定電流會使電感溫度上升大約 40℃ (電感初始溫度+上升溫度=電感最終溫度)
Typical rated current would cause an approximately ΔT of 40℃
- ◎ 務必考慮最終的產品設計，元器件佈局，線路板走線，以及使用環境過程中，電感最終溫度不得超過105℃
The operating temperature of inductance do not exceed 105℃
- ◎ 參考產品開發設計實測尺寸，感值，DCR等數據，請參考規格書第6頁
The Dimension, Inductance, DCR test data is on page 6
- ◎ 使用電感時，請查閱第8頁注意事項
The announcements is on page 9



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原理图

Schematic



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

◎ 线径1.6 mm
D: 1.6 mm

材料清單

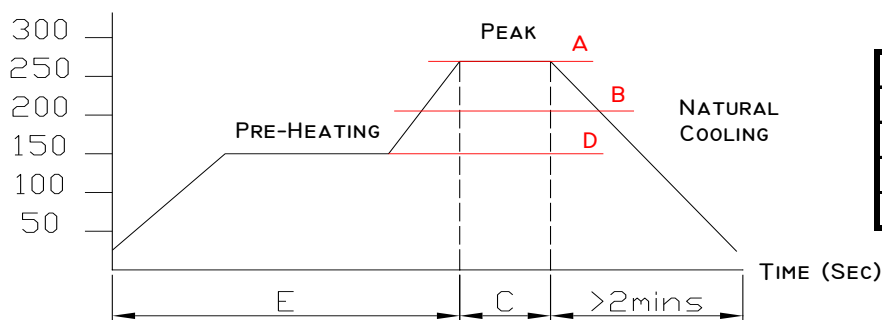
Material List

NO.	材料 ITEM	材質規格 Material	製造商 Manufacturer
1	磁芯/Core	Fe-Si and other composite materials	MIRRACK-MICRO (或等同廠商規格)
2	漆包線/Wire	2UEW+F 180℃	PACIFIAC (或等同廠商規格)
3	锡条/Sn	Sn:99.3 Cu0.7	FORETECH (或等同廠商規格)
4	底板/ plastic plate	40x26x2	SUNSHINE (或等同廠商規格)

焊接溫度（推荐）

Recommended Soldering Temperature Graph

TEMPERATURE (°C)



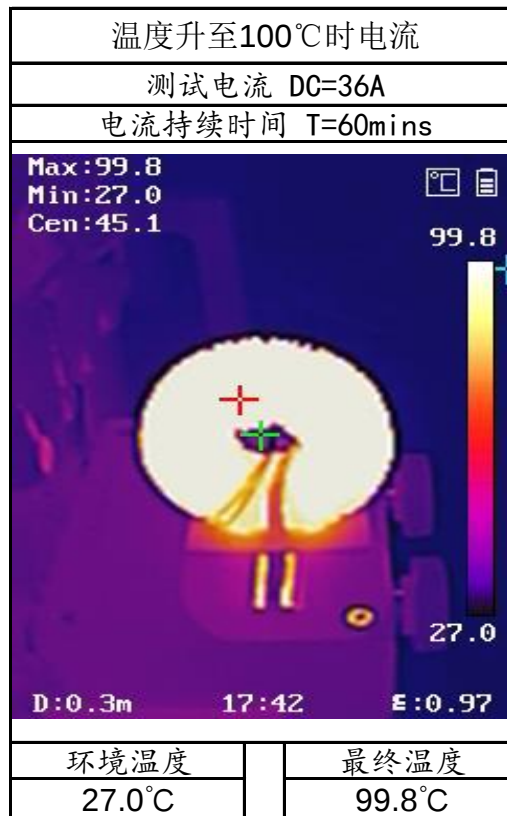
A	260℃
B	230℃
C	10 Sec
D	150℃
E	60~240 Sec



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温度实测数据

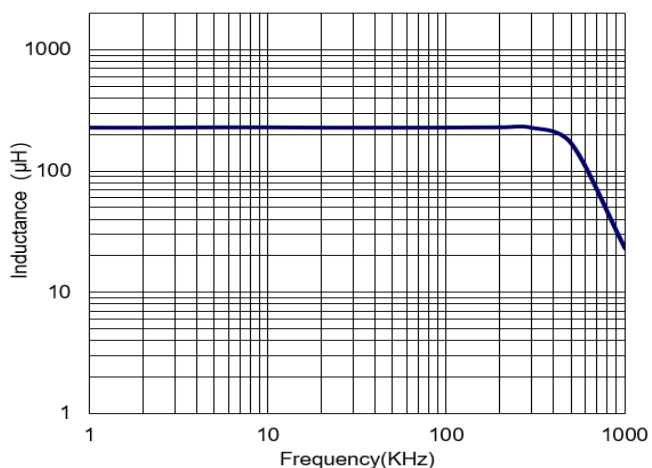
Temperature test data



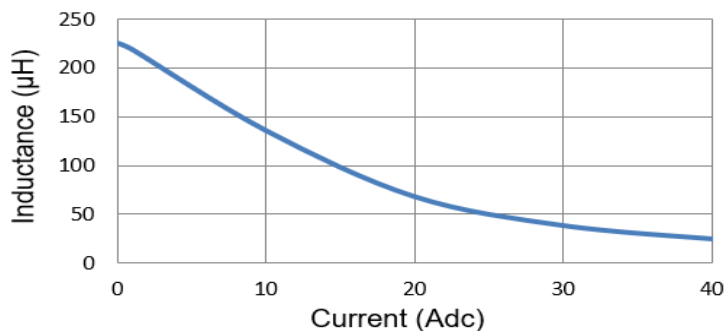
特性曲线

Performance Curves

Ls VS Frequency



Ls VS Current



測試數據

TEST REPORT



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測試數據

Test Date

序号	尺寸測試數據 Dimension Test Date							特性測試數據 Characteristics Test Date		
	A	B	C	D1	D2	L	W	DCR	Lo	Judge
	mm	mm	mm	mm	mm	mm	mm	mΩ	Min	
	55.0 MAX	55.0 MAX	28.0 MAX	3.2±0.3	1.6±0.3	8.0±2	20.0±1	9	20%	
1	52.39	52.27	26.15	3.26	1.6	8.66	20.15	7.66	235.00	PASS
2	52.61	51.45	26.02	3.19	1.61	8.59	20.16	7.5	232.30	PASS
3	52.24	52.22	26.07	3.19	1.59	8.72	20.18	7.28	233.10	PASS
4	52.43	52.38	26.08	3.23	1.61	8.89	20.13	7.57	227.60	PASS
5	52.55	52.26	26.11	3.22	1.59	8.76	20.15	7.62	224.80	PASS
6										PASS
7										PASS
8										PASS
9										PASS
10										PASS
平均值	52.44	52.12	26.09	3.22	1.60	8.72	20.15	7.526	230.56	

◎ 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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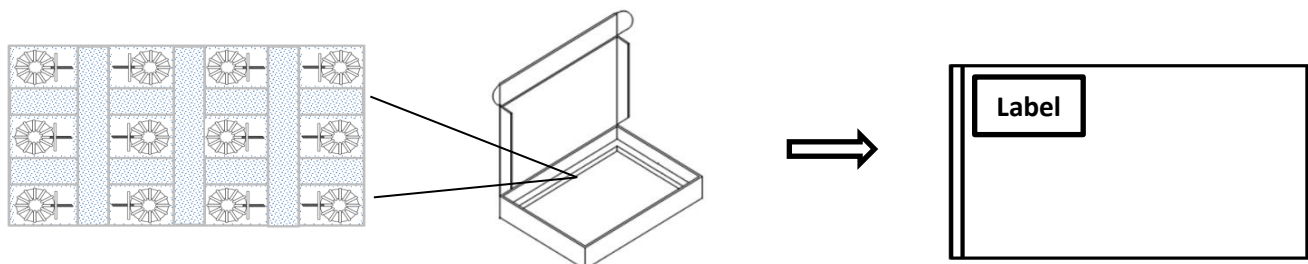
内盒包装

MPQ packaging

珍珠棉
pearl wool

内盒
inner box

内盒
inner box



一整盒装12pcs
MPQ=12pcs

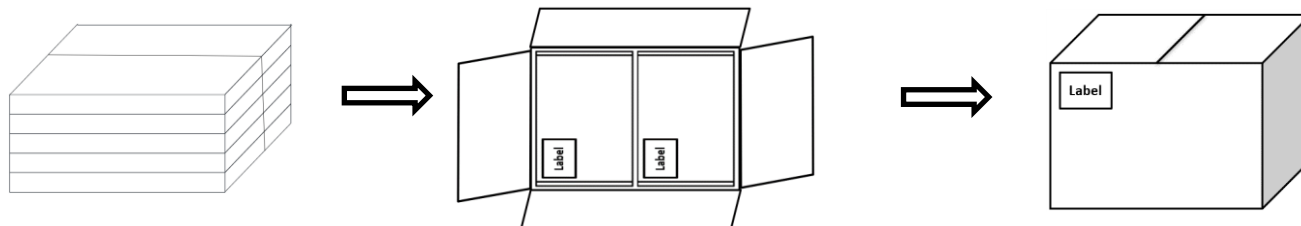
外箱

full container load

内盒
inner box

整箱
full container load

整箱
full container load



每箱内装6小盒，每箱数量72pcs
6 inner boxes fill a whole case, 72pcs/full container load

尺寸与重量

Size and Weight

	单颗产品 single	内盒 inner box	整箱 full container load
尺寸 Size	N.A	27x20x4 cm	40x28x20 cm
净重 net weight	198g	2.376 kg	14.256kg
毛重 gross weight	N.A	2.6kg	16kg





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℃; 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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| 3 Aerospace/aviation equipment | |
| 4 Power-generation control equipment | |
| 5 Atomic energy-related equipment | |
| 6 Explosive ignition control equipment | |
| 7 Transportation control equipment | |

Page 9 / 9



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