

产品编码 P/N	PDPTAT1216G-221JLU	测试设备 TEST INSTRUMENT	Chroma:3302/16502
产品系列 Series	插件工字电感	测试频率 TEST FREQUENCY	1KHZ / 0.3V

客户名称
Customer

:

客户编码
Customer P/N

:

产品系列
Series

:

插件工字电感
DIP Power Inductor产品编码
Supply P/N

:

PDPTAT1216G-221JLU

发版号
Version

:

A2.0

承认日期
Endorsement Date

:

2025-10-30

备注
Note

:

谱罗德电子科技（深圳）有限公司 PuLuoDe Electronic Technology (Shenzhen) Co. LTD	
制作 APPROVED	Ben
审查 CHECKED	Yuki
确认 PREPARED	Peter

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

Please confirm and sign this acknowledgement letter before placing the formal order, otherwise PROD will acquiesce that your company recognizes the parameters and terms in this acknowledgement letter, and will produce and deliver according to these parameters.

客户承认

Customer Approval

客户签章



A2.0

修订记录

REVISION RECORD

工业级

RoHS

compliant

REACH

compliant

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Version	REVISION ITEM	BEFORE REVISION	AFTER REVISION	DATE
A1.0	首次发行			2025-10-30

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谱罗德

PROD

谱罗德电子科技（深圳）有限公司

PuLuoDe Electronic Technology (Shenzhen) Co., LTD

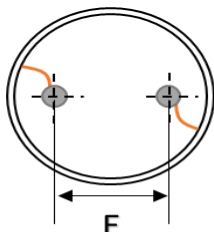
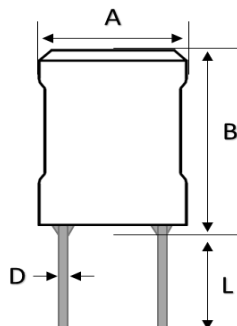
深圳市宝安区石岩三联工业区B栋311

更多规格请访问谱罗德官方网站
下载或者扫描二维码通过微信小程序获取

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

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封装尺寸 Dimension (mm)



1216	封装尺寸 Dimension
A	14.0 Max
B	18.5 Max
L	10.0 Min
D	0.8 ± 0.1
E	7.5 ± 0.5
MPQ	100pcs/袋装

编码解释

Code interpretation

PDPTAT	1216G	-XXX	J	L	U
类别码	尺寸系列	感值	精度	立式	套管
Category code	Dimension	Inductance	Tolerance	Vertical type	Drivepipe

电气参数

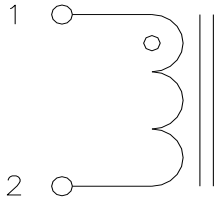
Electrical Characteristics

产品编码 P/N	@ 25 °C Ambient Temperture						
	感值	精度	DCR		饱和电流		温升电流
	Inductance	tolerance	mΩ		mA		IRMS
	μH	±	Typ	Max	≈10%	≈30%	ΔT≈40°C
PDPTAT1216G-221JLU	220	5%	122	140	1700	2000	2200

- © 规格参数基于环境温度25℃所得
All test Data is referenced to 25°C ambient
- © 电感工作环境温度：-40℃ ~ 125℃
Operating temperature range -40 °C to +125 °C
- © 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°C
- © 加载饱和电流（ISAT）会使感值下降大约 10%或30%
Typical Saturation DC Current would cause Lo to drop approximately 10% or 30%
- © 请从温升电流（IRMS）和饱和电流（ISAT）中选取一个最小值作为额定电流
Choose a minimum of IRMS and ISAT as the rated current
- © 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125℃
The operating temperature of inductance do not exceed 125°C
- © 产品注意事项请参阅规格书第7页
The announcements is on page 7

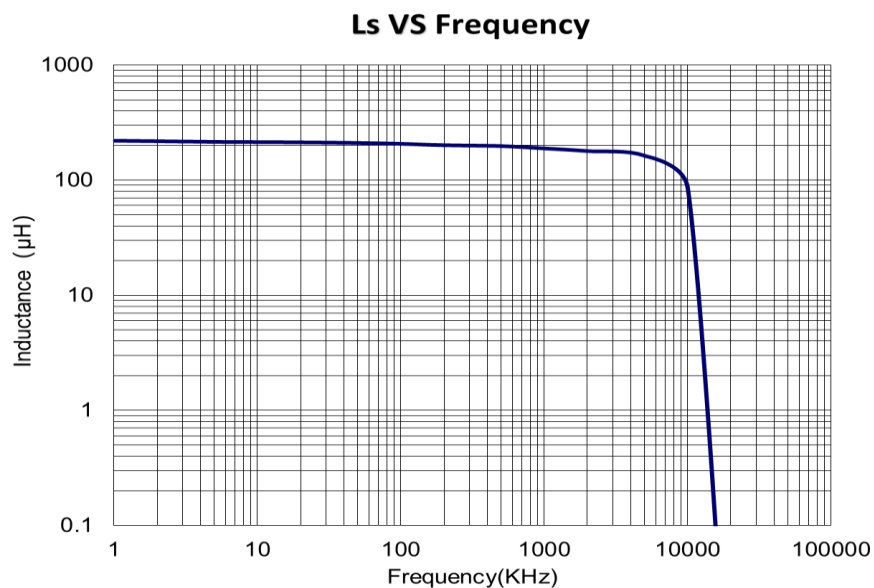
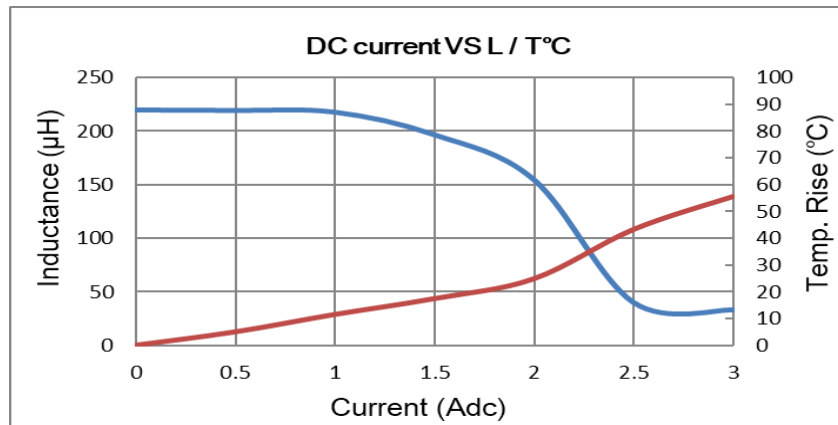


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电路结构
Connections图示
image

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

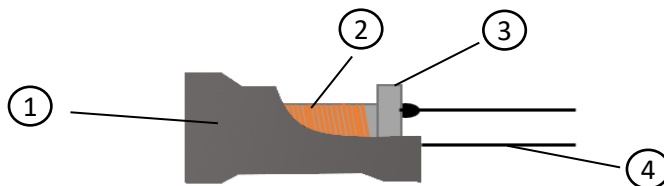
- ◎ 电感外部加热缩套管
- ◎ The heat shrink tubing is wrapped around the outside of the magnetic core.

特性曲线
Characteristic Curve

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材料清单

Material List

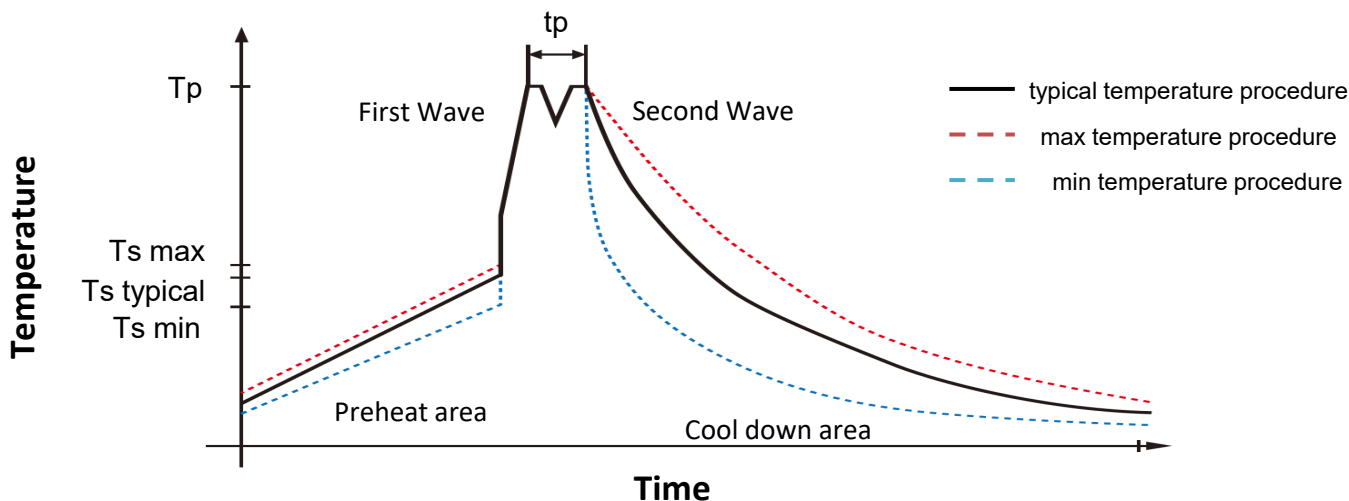


NO.	结构 Structure Name	材料规格 Material Name	材料制造商 Material Manufacturer
①	套管/Cover Tube	黑色套管/Black Cover Tube	SHENZHEN WOER
②	铜线/Copper Wire	2UEW 155°C	Pacific
③	磁芯/Core	10x16铁氧体磁芯/Ferrite Core 10x16	DONGCHENG/HUICI
④	电极/Electrode	Sn-Cu0.7	QIAN DAO

*组件的材料不限制于清单内的制造商/The material of the part is not limited to the listed manufacturer

焊接温度（推荐）

Recommended Classification Wave Soldering Profile



Profile Feature	Item	Pb-Free Assembly	Sn-Pb Assembly
Preheat Temperature Min	Ts min	100 °C	
Preheat Temperature Typical	Ts typical	120 °C	
Preheat Temperature Max	Ts max	130 °C	
Preheat Time ts from Ts min to Ts max	ts	70 seconds	
Ramp-up Rate	ΔT	150 °C max.	
Peak Temperature	Tp	250 °C - 260 °C	235 °C - 260 °C
Time of actual peak temperature	tp	max. 10 secondsmax. 5 seconds each wave	
Ramp-down Rate, Min		~ 2 K/ second	
Ramp-down Rate, Typical		~ 3.5 K/ second	
Ramp-down Rate, Max		~ 5 K/ second	
Time 25 °C to 25 °C		4 minutes	

* 参考标准: EN61760-1:2006 refer standard to: EN61760-1:2006





注意事项

使用本产品时，请注意以下事项

- ◎ 产品保存期限为12个月，保存条件：温度5~40℃，湿度10~75%RH以内，超过保存期限可能会使元器件电极发生氧化，存储标准可参照：IEC_61760-2-2021
This components storage life is 12 months, Storage Temperature: TEMP.5~40℃; RH10%~75%. Please use this components within the warranty period. refer standard to: IEC_61760-2-2021
- ◎ 请勿在极端环境下使用和保存（高盐，强酸，强碱，强辐射等）。
Do not use this component in special environments, such as high salt content, strong acid, strong alkali, strong corrosion and other special environments.
- ◎ 元器件焊接前,请进行预热,预热与焊接温度之间温差建议控制在150℃以内;焊接标准参考：EN61760-1:2006
Please preheat the product before welding; it is recommended to control the preheating temperature and welding temperature within 150℃. refer standard to: EN61760-1:2006
- ◎ 元器件焊接后需重新拆卸焊接修正时，请遵循规格书规定的条件范围；过高的加热温度以及反复的拆卸可能会导致元器件失效。
When repairing this component, the temperature used for disassembly should not exceed the datasheet limit and do not disassemble it frequently to prevent damage to the component.
- ◎ 请勿用清洗剂、丙酮等腐蚀性液体接触该元器件，这可能会侵蚀元器件本体以至于失效。
Do not use acetone or other corrosive liquids to contact this component or it will cause it to fail.
- ◎ 元器件焊接到线路板后，请注意不可因线路板整体变形或局部变形而施加给电感剩余应力，这可能会导致元器件脱落、破损失效。
When this component is soldered to the circuit board, you need to pay attention to the stress applied to it by the PCB, which may cause it to fall off or damaged fail.
- ◎ 元器件通电后温度会随电流的增大而上升，设计时请务必考虑留有余量。
Self heating (Rated Current or Irms) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- ◎ 过高的静电会损坏该元器件，请注意静电防护。
Too high static electricity will cause permanent damage to the product, please pay attention to electrostatic protection.
- ◎ 本元器件作为磁性产品，设计时请务必考虑周边元器件与本产品可能产生的耦合效应影响。
This magnetic component needs to be considered for coupling effects in the application.
- ◎ 谱罗德并不能完全掌握或熟悉客户的特定应用以及要求，贵司有责任和义务验证此元器件以及元器件规格书中的描述是否满足于贵司的设计要求；需要指出是：即使按照现有的技术标准操作，该元器件依然有几率在典型寿命结束前发生故障，谱罗德强烈建议贵司对于该元器件在一些典型的严苛应用中，例如安规产品，工业产品、医疗产品、车载产品、航空/航天等产品应用，对于该元器件可能存在的失效情况做适当的冗余设计，以此避免该元器件在失效时造成严重后果；特别提醒：对于特定的应用对象谱罗德强烈要求贵司同谱罗德取得书面的许可，否则谱罗德不予承担元器件失效带来的任何责任，特定对象包括且不限于：车用，航空航天，安规产品，军用以及贵司对元器件有严苛要求的产品。
PROD cannot fully understand and be familiar with customers' specific applications and requirements. Your company has the responsibility and obligation to verify whether the components and the description in the component specification meet your design requirements. Special reminder: Even if operated in accordance with existing technical standards, this component still has a chance of failure before the end of its typical life. PROD strongly recommends that your company make appropriate redundant designs for possible failure situations of this component in some typical harsh applications, such as safety products, industrial products, medical products, automotive products, aviation/aerospace products, etc., so as to avoid serious consequences when the component fails.
PROD Requirements: For specific application item, PROD strongly requires your (or company) to obtain written permission from PROD, otherwise PROD will not bear any responsibility for component failure. Specific item list include but are not limited to: automotive, aerospace, safety products, military and products that your company has strict requirements on components.

