製品規格書

SPECIFICATION FOR APPROVAL

產品編碼 P/N	PDMCAT1386-221413series	測試設備 TEST INSTRUMENT	Keysight:E4991B Chroma:16502 3302
產品系列 Series	共模电感	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	:	共模电感 Common Mode Line Chokes
產品編碼 Supplly P/N	:	PDMCAT1386-221413series
發版號 Version	:	A4.0
承認日期 Endorsement Date	:	2025-6-27
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

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
http://www.prodtech.cn/

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修訂記錄
REVISION RECORD

產品編碼 P/N	PDMCAT1386-221413series	測試設備 TEST INSTRUMENT	Keysight:E4991B Chroma:16502 3302
產品系列 Series	共模电感	測試頻率 TEST FREQUENCY	1KHZ / 0.3V

Version	REVISON ITEM	BEFORE REVISON	AFTER REVISON	DATE
A2.0	First Version			2021-5-24
A2.1	Second edition	第三页:PDMCAT1386系列针脚尺寸0.5mm±0.05mm	第三页:PDMCAT1386系列针脚尺寸0.65mm±0.1mm	2023-4-14
A3.0	Third edition	第四/五页:PDMCAT16128/18107系列针脚尺寸1.0mm±0.1mm	第四/五页:PDMCAT16128/18107系列针脚尺寸0.8mm±0.1mm	2024-2-27
A4.0	Fourth Edition	電感工作環境溫度 ：-40℃ ~ 105℃ 最小包装：盒装	電感工作環境溫度 ：-25℃ ~ +105℃ 最小包装：托盘	2025-6-27

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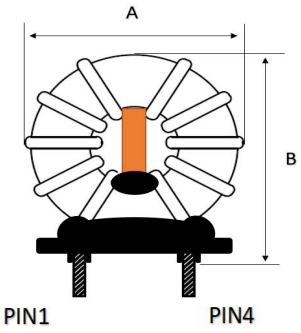
電氣特性
ELECTRICAL CHARACTERISTICS

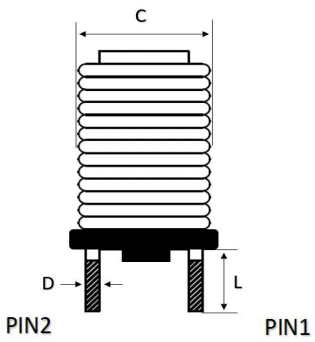
產品編碼 P/N	PDMCAT1386-221413series	測試設備 TEST INSTRUMENT	Keysight:E4991B Chroma:16502 3302
產品系列 Series	共模电感	測試頻率 TEST FREQUENCY	1KHZ / 0.3V

封裝尺寸 Dimension (mm)

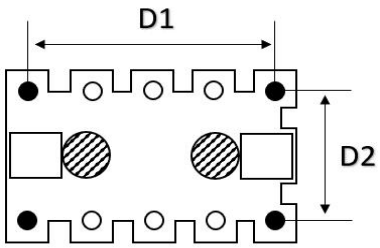
正视图 front view



侧视图 side view



底视图 bottom view



系列	封装尺寸 Dimension							MPQ
Series	A	B	C	D	D1	D2	L	pcs/托盘
1386	17 Max	18 Max	9.6 Max	0.65±0.1	10.0 Ref	5.0 Ref	4.0 Min	162

編碼解釋
Code interpretation

PDMCAT	1386	102	M	L
類別碼	尺寸系列	感值	精度	立式
Category code	Dimension	Inductance	Tolerance	Vertical type

電氣參數
Electrical Characteristics

產品編碼 P/N	@ 25 ℃ Ambient Temperture					
	感值 Inductance	精度 Tolerance	DCR	额定电流 rated current	耐壓 HI-POT	
	N1/N2	N1/N2	mΩ	A	N1/N2	N1~C/N2~C
	mH	Min（mH）	Max	△T≈40℃	AC 1.5KV	AC1.5KV
PDMCAT1386-102ML	1	0.8	20	3	AC/60Hz 1mA 3Sec	AC/60Hz 1mA 3Sec
PDMCAT1386-222ML	2.2	1.8	30	3		
PDMCAT1386-472ML	4.7	4	70	2		
PDMCAT1386-103ML	10	8	140	1		
PDMCAT1386-153ML	15	12	180	1		
PDMCAT1386-203ML	20	16	230	1		

© 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： -25℃ ~ +105℃
Operating temperature range -25 °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 currentt would cause an approximately △T 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℃

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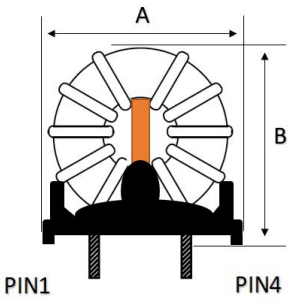
電氣特性
ELECTRICAL CHARACTERISTICS

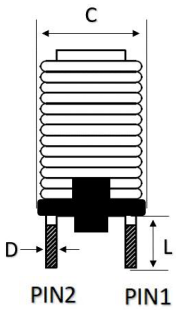
產品編碼 P/N	PDMCAT1386-221413series	測試設備 TEST INSTRUMENT	Keysight:E4991B Chroma:16502 3302
產品系列 Series	共模电感	測試頻率 TEST FREQUENCY	1KHZ / 0.3V

封裝尺寸 Dimension (mm)

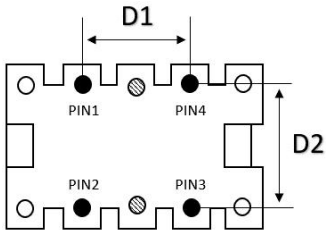
正视图 front view



侧视图 side view



底视图 bottom view



系列	封装尺寸 Dimension							MPQ
Series	A	B	C	D	D1	D2	L	pcs/托盘
16128	22 Max	22 Max	14 Max	0.8±0.1	7.5 Ref	9.0 Ref	5.0 Min	91

編碼解釋
Code interpretation

PDMCAT	16128	102	M	L	B
類別碼	尺寸系列	感值	精度	立式	带底座
Category code	Dimension	Inductance	Tolerance	Vertical type	Base

電氣參數
Electrical Characteristics

產品編碼 P/N	@ 25 ℃ Ambient Temperture					
	感值 Inductance	精度 Tolerance	DCR	額定电流 rated current	耐壓 HI-POT	
	N1/N2	N1/N2	mΩ	A	N1/N2	N1~C/N2~C
	mH	Min（mH）	Max	△T≈40℃	AC 1.5KV	AC1.5KV
PDMCAT16128-102MLB	1	0.8	14	9	AC/60Hz 1mA 3Sec	AC/60Hz 1mA 3Sec
PDMCAT16128-202MLB	2	1.8	25	6		
PDMCAT16128-502MLB	5	4.5	40	5		
PDMCAT16128-103MLB	10	9	60	3.5		
PDMCAT16128-153MLB	15	13.5	80	3		
PDMCAT16128-203MLB	20	18	130	2.5		

© 規格參數基於環境溫度25℃取得
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Operating temperature range -25 °C to +105 °C

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The operating temperature of inductance do not exceed 105℃

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ELECTRICAL CHARACTERISTICS

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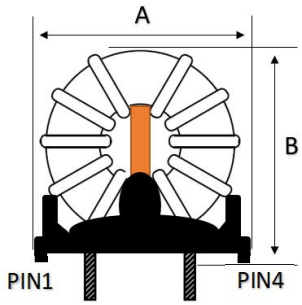
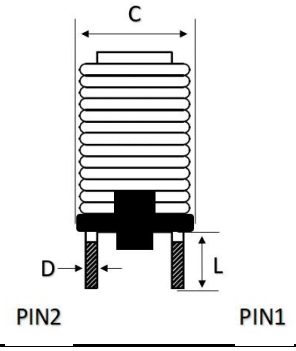
產品系列 Series	共模电感	測試頻率 TEST FREQUENCY	1KHZ / 0.3V

封裝尺寸 Dimension (mm)

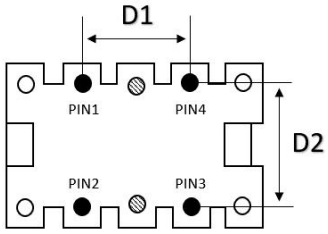
正视图 front view



侧视图 side view



底视图 bottom view



系列	封装尺寸 Dimension							MPQ
Series	A	B	C	D	D1	D2	L	pcs/托盘
18107	23 Max	24 Max	15 Max	0.8±0.1	7.5±0.5	9.0±0.5	4.0 Min	91

編碼解釋
Code interpretation

PDMCAT	18107	102	M	L	B
類別碼	尺寸系列	感值	精度	立式	带底座
Category code	Dimension	Inductance	Tolerance	Vertical type	Base

電氣參數
Electrical Characteristics

產品編碼 P/N	@ 25 ℃ Ambient Temperture					
	感值 Inductance	精度 Tolerance	DCR	额定电流 rated current	耐壓 HI-POT	
	N1/N2	N1/N2	mΩ	A	N1/N2	N1~C/N2~C
	mH	Min（mH）	Max	△T≈40℃	AC 1.5KV	AC1.5KV
PDMCAT18107-102MLB	1	0.9	9	10	AC/60Hz 1mA 3Sec	AC/60Hz 1mA 3Sec
PDMCAT18107-202MLB	2	1.8	16	8		
PDMCAT18107-502MLB	5	4.5	30	6		
PDMCAT18107-103MLB	10	9	60	4.5		
PDMCAT18107-153MLB	15	13.5	80	3.5		
PDMCAT18107-203MLB	20	18	100	3		
PDMCAT18107-303MLB	30	27	150	2.5		

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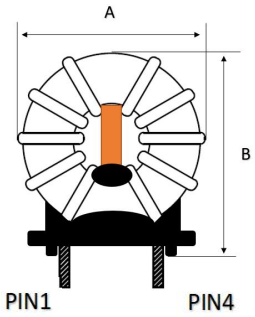
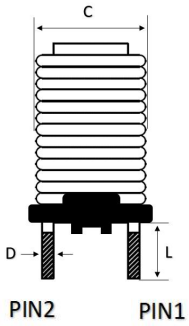
產品系列 Series	共模电感	測試頻率 TEST FREQUENCY	1KHZ / 0.3V

封装尺寸 Dimension (mm)

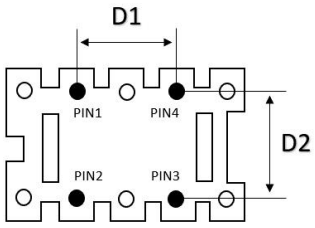
正视图 front view



侧视图 side view



底视图 bottom view



系列	封装尺寸 Dimension							MPQ
Series	A	B	C	D	D1	D2	L	pcs/托盘
221413	28 Max	31 Max	18.5 Max	1.0±0.05	10.0±0.5	12.0±0.5	4.0 Min	50

編碼解釋 Code interpretation

PDMCAT	221413	102	M	L	B
類別碼 Category code	尺寸系列 Dimension	感值 Inductance	精度 Tolerance	立式 Vertical type	带底座 Base

電氣參數 Electrical Characteristics

產品編碼 P/N	@ 25 ℃ Ambient Temperture					
	感值 Inductance	精度 Tolerance	DCR	额定电流 rated current	耐壓 HI-POT	
	N1/N2	N1/N2	mΩ	A	N1/N2	N1~C/N2~C
	mH	Min（mH）	Max	△T≈40℃	AC 1.5KV	AC1.5KV
PDMCAT221413-102MLB	1	0.8	10	17	AC/60Hz 1mA 3Sec	AC/60Hz 1mA 3Sec
PDMCAT221413-202MLB	2	1.6	15	14		
PDMCAT221413-502MLB	5	4	28	9.5		
PDMCAT221413-103MLB	10	8	55	7		
PDMCAT221413-203MLB	20	16	100	4.5		
PDMCAT221413-303MLB	30	27	120	4		

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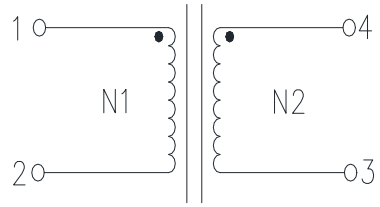
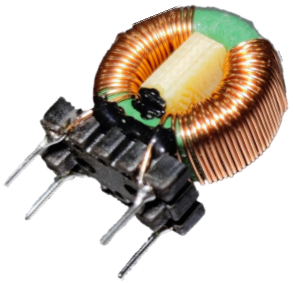
產品系列 Series	共模电感	測試頻率 TEST FREQUENCY	1KHZ / 0.3V

電路結構
Connections





◎ 电感内置兩组线圈
Inductor Contents Two (2) Set(s) of Coil

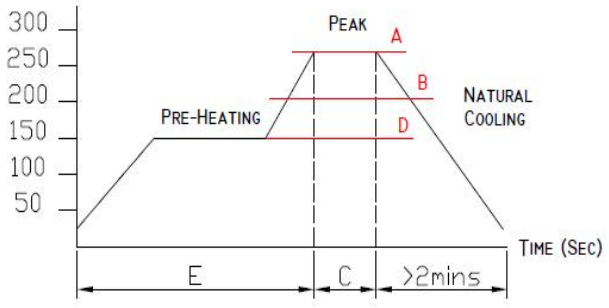
◎ 电感使用3.0mm隔板，符合UL508隔离要求
used epoxy board 3.0mm,Up to UL508 rule

◎ 查看电感铜线线径请联系谱罗德索取单颗规格书
To check the diameter of copper wire, please contact PROD

內部構造
Internal Structure

NO.	材料 ITEM	材質規格 Material	製造商 Manufacturer	UL NO.
1	磁芯/Core	T1386 /16128/18108/221413	YUFENG(或等同廠商規格)	N.A
2	漆包線/Wire	2UEW+F 155℃	ELKTRISOLA(或等同廠商規格)	E258243
3	隔板/Partition	JZ1688	JIAZHOU(或等同廠商規格)	E542628
4	底座/Base	T738JB	PLASTICS(或等同廠商規格)	E59481
5	锡条/Sn	LEAD FREE SOLDER	CITY(或等同廠商規格)	N.A
6	凡立水/Varnish	E962	ZHCX(或等同廠商規格)	E335405

焊接溫度（推荐）
Recommended Soldering Temperature Graph



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

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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.

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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.

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