



产品编码 P/N	PSSCAQ7048-1285series	测试设备 TEST INSTRUMENT	Chroma: 3302 16502
产品系列 Series	贴片耦合电感	测试频率 TEST FREQUENCY	100KHZ / 0.25V

客户名称
Customer

客户编码
Customer P/N

产品系列
Series

贴片耦合电感
SMD Coupled Inductor

产品编码
Supply P/N

PSSCAQ7048-1285series

发版号
Version

A3.0

承认日期
Endorsement Date

2026-5-8

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

客户承认

Customer Approval

客户签章



谱罗德电子科技（深圳）有限公司
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下载或者扫描二维码通过微信小程序获取

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



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产品特点

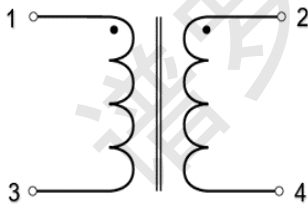
Features

- ☐ 效率高 高耦合
High efficiency, High coupling
- ☐ 较高的额定电流, 低直流阻抗
High rated current, low DCR
- ☐ 具有耦合电感与共模电感双重特性
It has dual characteristics of coupled inductance and common mode inductance
- ☐ 可用于SEPIC, Zeta, Flyback等拓扑电路
can be applied to SEPIC, Zeta, flyback and other topological circuit

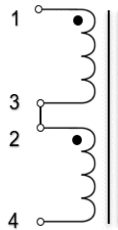


电路图示

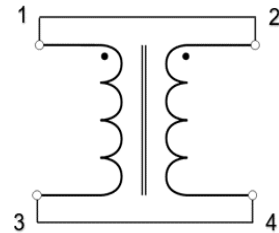
Schematics



双电感/Duai Inductor



串联/Series



并联/Parallel

编码解释

Code interpretation

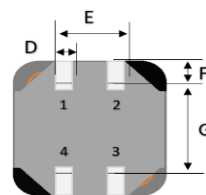
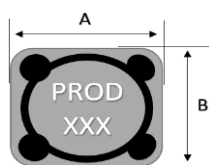
PSSCAQ 类别码 Category code	1285 尺寸系列 Dimension	4R7 感值 Inductance	M 公差 Tolerance	P 印字标识 Marking
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- Ⓞ 规格参数基于环境温度25°C取得
All test Data is referenced to 25°C ambient
- Ⓞ 电感工作环境温度: -40°C ~ 125°C
Operating temperature range -40 °C to +125 °C
- Ⓞ 加载温升电流 (Irms) 会使电感温度上升大约 40°C (电感初始温度+上升温度=电感最终温度)
Typical Irms would cause an approximately ΔT of 40°C
- Ⓞ 加载饱和电流 (ISAT) 会使感量下降大约30%
Typical ISAT would cause Lo to drop approximately 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
- Ⓞ 务必考虑最终的产品设计, 元器件布局, 线路板走线, 以及使用环境过程中, 电感最终温度不得超过125°C
The operating temperature of inductance do not exceed 125°C
- Ⓞ 使用电感时, 请查阅最后一页注意事项
The announcements is on last page

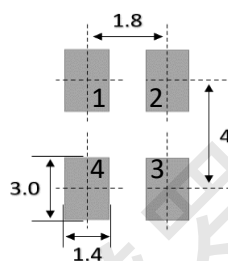


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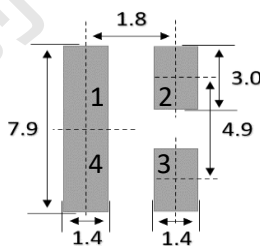
封装尺寸 Dimension (mm)



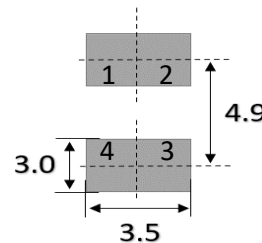
推荐的焊盘尺寸 Recommended Layout



双电感/Dual Inductor



串联/Series



并联/Parallel

系列 Series	封装尺寸 Dimension							最小包装 MPQ
	A	B	C	D	E	F	G	编带/卷盘
PSSCAQ7048	7.6 Max.	7.6 Max.	4.8 Max.	0.7 Typ.	2.7 Typ.	1.5 Typ	4.5 Typ	1000

PSSCAQ7048 Series

产品编码 P/N	@ 25 °C Ambient Temperature					
	感量 Inductance	公差 Tolerance	耦合系数 K _{Typ}	DCR Ω	温升电流 (IRMS) mA	饱和电流 (ISAT) mA
	μH	±	%	Max	ΔT≈40°C	L0 drop≈30%
PSSCAQ7048-2R2M	2.2	20%	97%	0.035	4300	8000
PSSCAQ7048-3R3M	3.3	20%	97%	0.043	3700	6500
PSSCAQ7048-4R7M	4.7	20%	98%	0.053	3300	5500
PSSCAQ7048-6R8M	6.8	20%	98%	0.075	2700	4700
PSSCAQ7048-100M	10	20%	98%	0.11	2300	3800
PSSCAQ7048-150M	15	20%	99%	0.16	1800	3200
PSSCAQ7048-220M	22	20%	99%	0.19	1600	2700
PSSCAQ7048-330M	33	20%	99%	0.29	1300	2200
PSSCAQ7048-470M	47	20%	99%	0.43	1100	2000
PSSCAQ7048-680M	68	20%	99%	0.6	800	1700
PSSCAQ7048-101M	100	20%	99%	0.9	500	1000

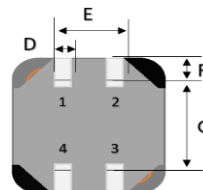
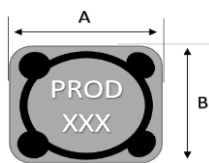


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产品系列 Series	贴片耦合电感	测试频率 TEST FREQUENCY	100KHZ / 0.25V

封装尺寸

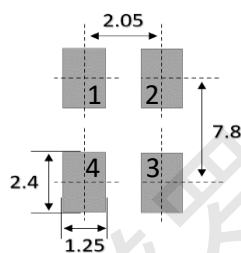
Dimension

(mm)

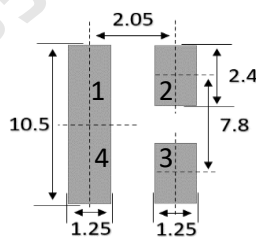


推荐的焊盘尺寸

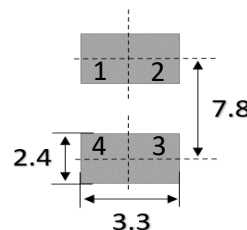
Recommended Layout



双电感/Duai Inductor



串联/Series



并联/Parallel

系列 Series	封装尺寸 Dimension							最小包装 MPQ
	A	B	C	D	E	F	G	编带/卷盘
PSSCAQ1050	10.5 Max.	10.5 Max.	5.0 Max.	1.0 Typ.	3.0 Typ.	2.3 Typ	5.2 Typ	800

PSSCAQ1050 Series

产品编码 P/N	@ 25 °C Ambient Temperature					
	感量 Inductance	公差 Tolerance	耦合系数 K _{Typ}	DCR Ω	温升电流 (I _{RMS}) mA	饱和电流 (I _{SAT}) mA
	μH	±	%	Max	ΔT≈40°C	L0 drop≈30%
PSSCAQ1050-2R2MP	2.2	20%	95%	0.021	6000	14000
PSSCAQ1050-3R3MP	3.3	20%	97%	0.026	5500	12000
PSSCAQ1050-4R7MP	4.7	20%	97%	0.032	4700	10000
PSSCAQ1050-6R8MP	6.8	20%	98%	0.04	4100	7800
PSSCAQ1050-100MP	10	20%	98%	0.06	3400	6200
PSSCAQ1050-150MP	15	20%	99%	0.085	2700	5300
PSSCAQ1050-220MP	22	20%	99%	0.12	2300	4400
PSSCAQ1050-330MP	33	20%	99%	0.18	1800	3400
PSSCAQ1050-470MP	47	20%	99%	0.27	1300	3000
PSSCAQ1050-680MP	68	20%	99%	0.4	1000	2200
PSSCAQ1050-101MP	100	20%	99%	0.7	700	1500

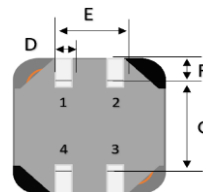
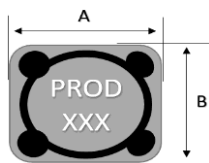


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封装尺寸

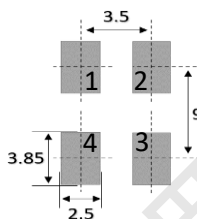
Dimension

(mm)

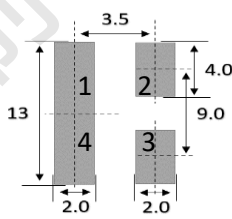


推荐的焊盘尺寸

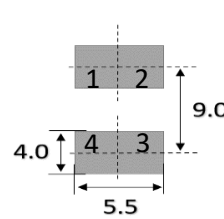
Recommended Layout



双电感/Dual Inductor



串联/Series



并联/Parallel

系列 Series	封装尺寸 Dimension							最小包装 MPQ
	A	B	C	D	E	F	G	编带/卷盘
PSSCAQ1285	12.5 Max.	12.5 Max.	8.5 Max.	1.7 Typ.	5.0 Typ.	2.5 Typ.	7.3 Typ.	500

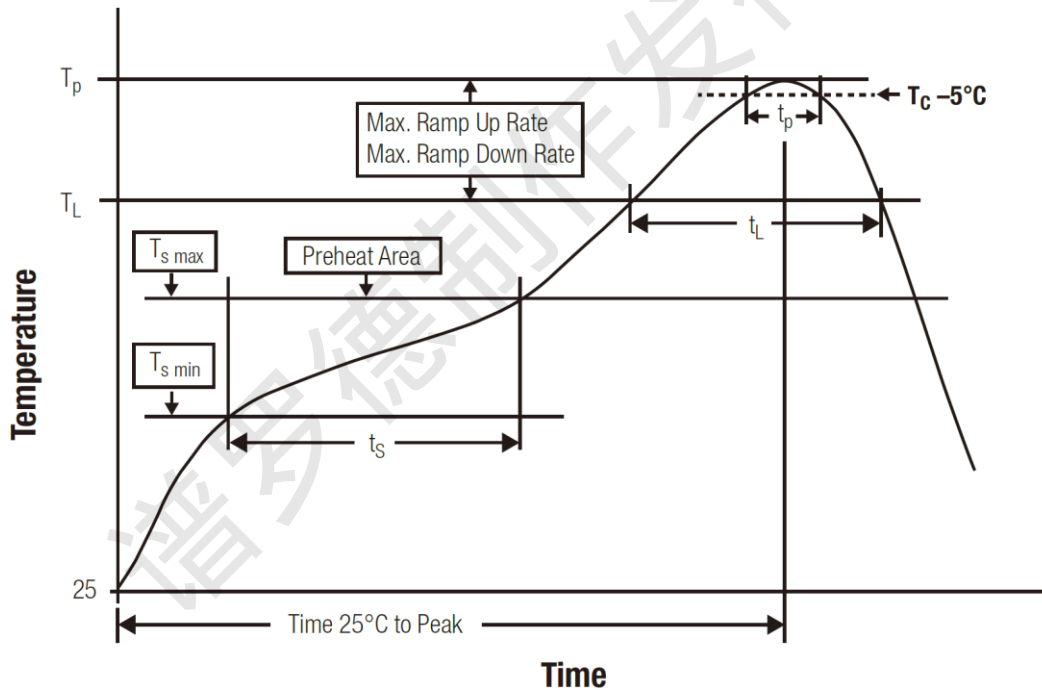
PSSCAQ1285 Series

产品编码 P/N	@ 25 °C Ambient Temperature					
	感量 Inductance	公差 Tolerance	耦合系数 K _{Typ}	DCR Ω	温升电流 (I _{RMS}) mA	饱和电流 (I _{SAT}) mA
	μH	±	%	Max	ΔT≈40°C	L0 drop≈30%
PSSCAQ1285-R22NP	0.22	20%	90%	0.006	20000	50000
PSSCAQ1285-1R0NP	1.0	20%	92%	0.01	16000	18000
PSSCAQ1285-2R0MP	2.0	20%	95%	0.02	6100	18000
PSSCAQ1285-3R0MP	3.0	20%	95%	0.023	5700	16000
PSSCAQ1285-4R7MP	4.7	20%	97.6%	0.026	5000	15000
PSSCAQ1285-6R8MP	6.8	20%	98.8%	0.036	4300	14000
PSSCAQ1285-100MP	10	20%	98.8%	0.045	4000	12000
PSSCAQ1285-150MP	15	20%	99.0%	0.065	3400	10000
PSSCAQ1285-220MP	22	20%	99.1%	0.08	2800	8500
PSSCAQ1285-270MP	27	20%	99.0%	0.1	2500	7500
PSSCAQ1285-330MP	33	20%	98.9%	0.11	2400	6500
PSSCAQ1285-470MP	47	20%	99.6%	0.15	2000	5000
PSSCAQ1285-680MP	68	20%	99.4%	0.21	1700	4500
PSSCAQ1285-101MP	100	20%	99.3%	0.35	1300	3500
PSSCAQ1285-151MP	150	20%	99.0%	0.42	1000	2200
PSSCAQ1285-221MP	220	20%	99.0%	0.7	800	1800
PSSCAQ1285-331MP	330	20%	99.0%	1.1	750	1400
PSSCAQ1285-471MP	470	20%	99.0%	1.8	650	1200
PSSCAQ1285-681MP	680	20%	99.0%	2.9	550	1100
PSSCAQ1285-102MP	1000	20%	95.0%	3.2	450	1000

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焊接温度（推荐）

Recommended Classification Wave Soldering Profile



Classification Reflow Soldering Profile:

Profile Feature	Item	Value
Preheat Temperature Min	Ts min	150 °C
Preheat Temperature Max	Ts max	200 °C
Preheat Time ts from Ts min to Ts max	ts	60 - 120 seconds
Ramp-up Rate (TL to TP)		3 °C/ second max.
Liquidous Temperature	TL	217 °C
Time tL maintained above TL	tL	60 - 150 seconds
Peak package body temperature	Tp	Tp ≤ Tc, see Table below
Time within 5°C of actual peak temperature	t p	20 - 30 seconds
Ramp-down Rate (TP to TL)		6 °C/ second max.
Time 25°C to peak temperature		8 minutes max.

Package Classification Reflow Temperature (Tc):

Properties	Volume mm ³ <350	Volume mm ³ 350-2000	Volume mm ³ >2000
PB-Free Assembly Package Thickness < 1.6 mm	260°C	260°C	260°C
PB-Free Assembly Package Thickness 1.6 mm - 2.5 mm	260°C	250°C	245°C
PB-Free Assembly Package Thickness > 2.5 mm	250°C	245°C	245°C

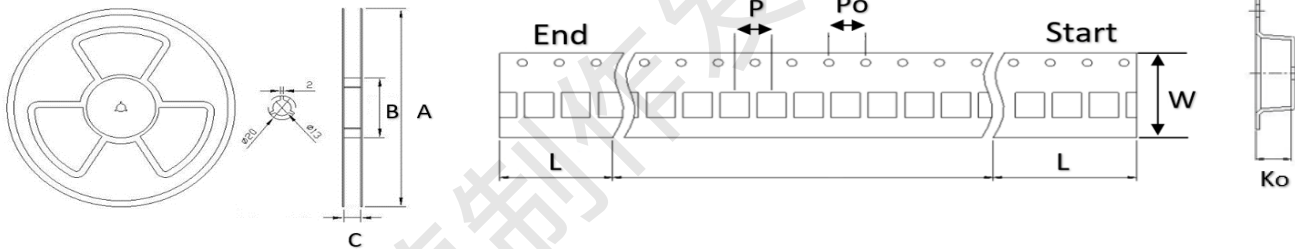
* 参考标准: IPC/ JEDEC J-STD-020E refer standard to: IPC/ JEDEC J-STD-020E



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载带卷盘尺寸 : (mm)

Packing Dimension



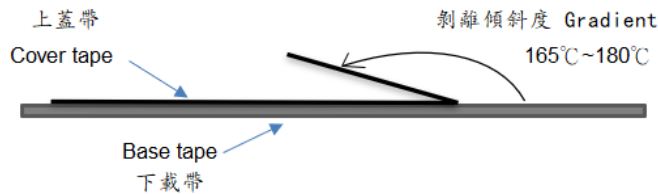
系列 Series	A	B	C	W	P	Po	Ko	L
PSPHAQ7048	330	100	17	16	12	4	5.0	前后预留大约 30空格
PSPHAQ1050	330	100	25	24	16	4	5.2	
PSPHAQ1265	330	100	25	24	16	4	6.7	
PSPHAQ1285	330	100	25	24	16	4	8.7	

载带剥离力:

Typical Pulling Force

对上盖带施加力: 20g~120g内即可与下载带剥离

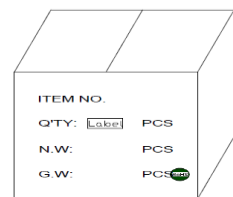
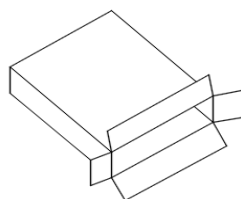
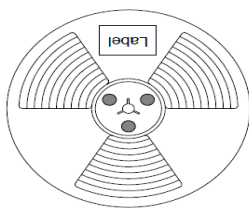
Tape Peeling off force: 20g~120g



卷盘
MPQ

内盒
Middle box

外箱
Outer box



系列 Series	卷盘 MPQ	内盒 Middle box	外箱 Outer box
PSPHAQ7048	1000pcs	3000pcs	9000pcs
PSPHAQ1050	1000pcs	3000pcs	9000pcs
PSPHAQ1265	500pcs	1000pcs	3000pcs
PSPHAQ1285	500pcs	1000pcs	3000pcs





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.
- ◎ 焊接前请先预热，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：IPC/ JEDEC J-STD-020E
Please preheat the product before welding; it is recommended to control the preheating temperature and welding temperature within 150℃. refer standard to: IPC/ JEDEC J-STD-020E
- ◎ 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.



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深圳市宝安区石岩三联工业区B栋311

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

