

製品規格書

SPECIFICATION FOR APPROVAL



產品編碼 P/N	PSHCAA1008-R22Z	測試設備 TEST INSTRUMENT	Zentech-3305 / Zentech502BC
產品系列 Series	貼片電感 SMD INDUCTOR	測試頻率 TEST FREQUENCY	100KHZ / 1.0V

客戶名稱

Customer

客戶編碼

Customer P/N

產品系列

Series

貼片電感

SMD INDUCTOR

產品編碼

Supply P/N

PSHCAA1008-R22Z

發版號

Version

A3.0

承認日期

Endorsement Date

2025-3-24

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

* 煩請貴司在正式訂單下達前確認回簽本承認書，否則敝司默認貴司認可本承認書內的參數與條款，並以此參數生產交貨

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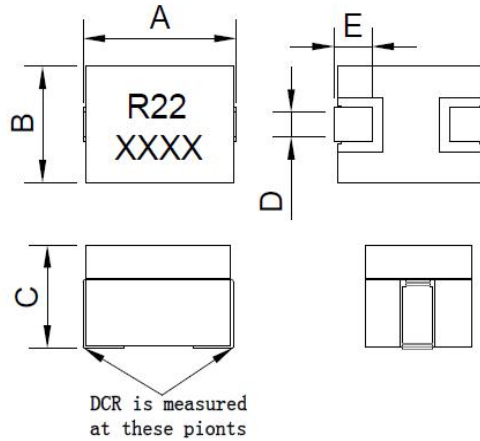
客戶簽章



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封裝尺寸 Dimension

(mm)



1008	Dimensions
A	10.5 Max
B	8.0 Max
C	7.5 Max
D	2.2±0.2
E	2.55±0.2

編碼解釋

Code interpretation

PSHCAABT	-	1008	-	XXX	-	Z
類別碼 Serial Codes		尺寸系列 Size		感值 Inductance Code		精度 TOLERANCE

電氣參數

Electrical Characteristics

@ 25 °C Ambient Temperature

產品編碼 P/N	感值	精度	DCR	溫升電流 (IRMS)	飽和電流1 (ISAT)	飽和電流2 (ISAT)
	Inductance	Tolerance	mΩ	A Typ	A Typ	A Typ
	nH	±	±7%	ΔT≤40°C	L0 drop≥ 20%	L0 drop≥20%
PSHCAA1008-R22Z	220	15%	0.290	56	50.00	40.0

- ◎ 規格參數基於環境溫度25°C取得
All test Data is referenced to 25°C ambient
- ◎ 電感工作環境溫度：-40°C ~ 125°C
Operating temperature range -40 ° C to +125 ° C
- ◎ 加載溫升電流 (Irms) 會使電感溫度上升大約 40°C (電感初始溫度+上升溫度=電感最終溫度)
Typical Irms would cause an approximately ΔT of 40°C
- ◎ 加載飽和電流 (ISAT) 會使感量下降大約30%
Typical ISAT would cause Lo to drop approximately 30%.
- ◎ 額定電流取值溫升電流與飽和電流二者最小值
The rated current is determined by the minimum value between IRMS and ISAT
- ◎ 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125°C
The operating temperature of inductance do not exceed 125°C
- ◎ 使用電感時，請查閱第9頁注意事項
The announcements is on page 10

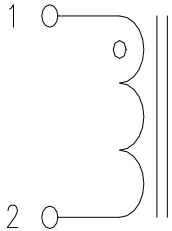
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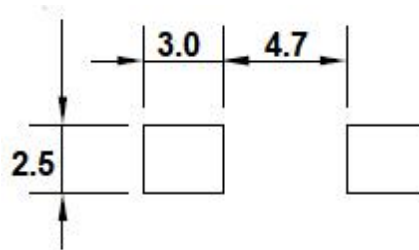


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電路結構
Connections



推薦焊盤
PCB Layout (mm)



◎ 電感內置一組線圈

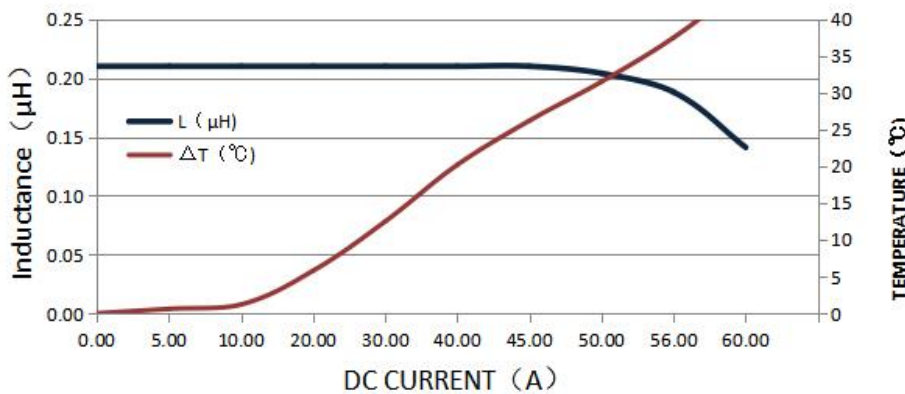
Inductor Contents ONE (1) Set(s) of Coil

特性曲線

Performance Curves

A	0.00	5.00	10.00	20.00	30.00	40.00	45.00	50.00	56.00	60.00
L (μH)	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.204	0.188	0.141
ΔT (°C)	0	0.6	1.2	5.8	12.5	20.2	26.2	31.5	37.5	44.9

DC CURRENT (A) VS INDUCTANCE(μH)
DC CURRENT (A) VS TEMPERATURE (°C)



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焊接溫度（推荐）

Recommended Soldering Temperature Graph

Figure 1. Re-flow Soldering

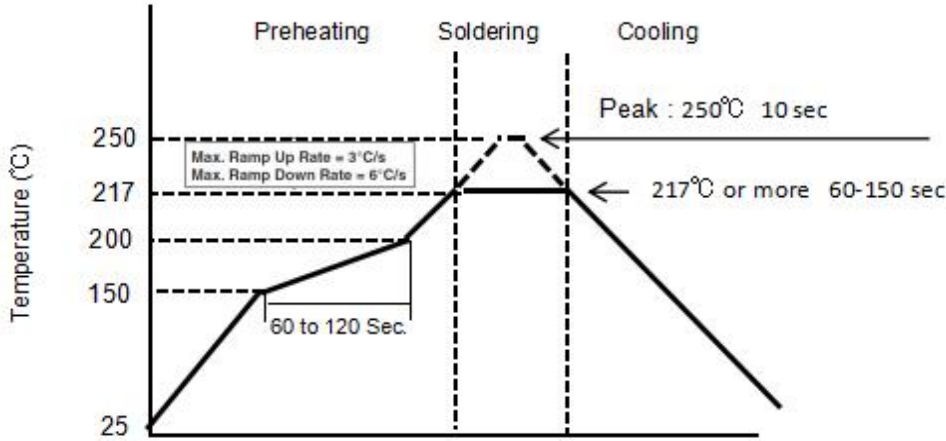


Figure 2. Wave Soldering

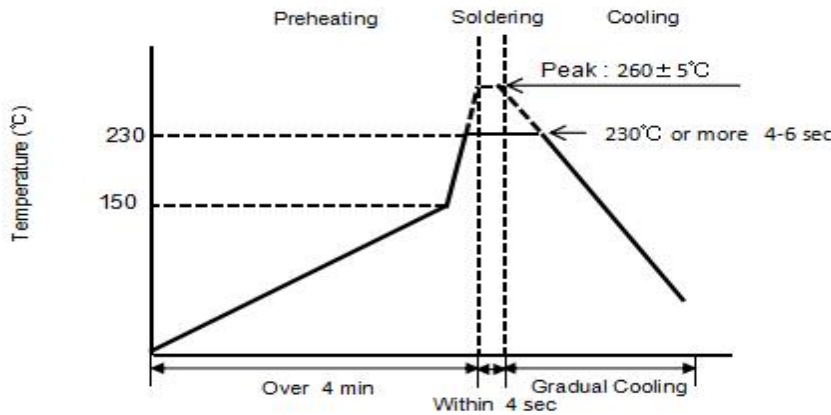
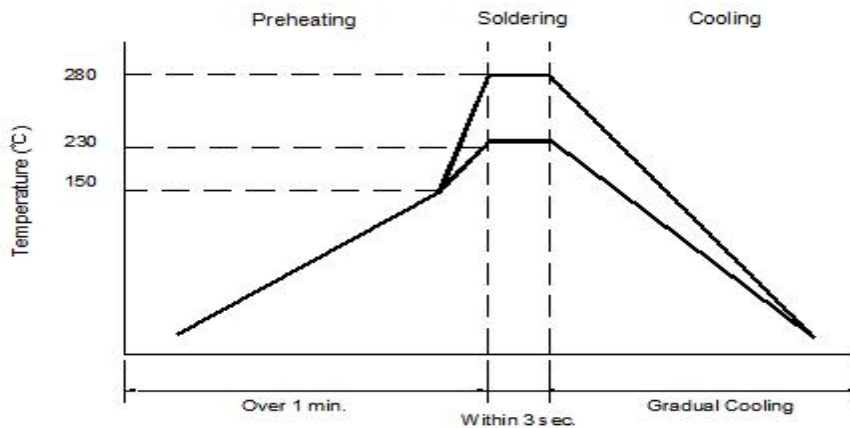


Figure 3. Hand Soldering





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可靠性測試

Reliability and Testing Conditions / Pin Type Power Inductors

No.	Item	Specification	Conditions	
1	Solderability	More than 90% of the terminal electrode should be covered with solder.	<p>Unit: Second</p>	
2	Solder Heat Resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	<p>Unit: Second</p>	
3	Heat resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 1000 hours in 125±5°C and 2 hour drying under normal condition.	
4	Cold resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 1000 hours in -40±5°C and 2 hour drying under normal condition.	
5	Thermal shock	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 1000 cycles of following condition.	
			Step	Temperature (°C)
			1	-40±5°C
			2	Room Temperature
			3	125±5°C
6	Humidity Resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 1000 hours in 40±2°C and 90 to 95% humidity , and 2 hour drying under normal condition.	
7	Vibration Test	Inductance within ±5% of initial value and appearance shall not break.	After vibration for 1hour, In each of three orientations at sweep vibration (10~55~10Hz) with 1.52mm P-P Amplitudes.	

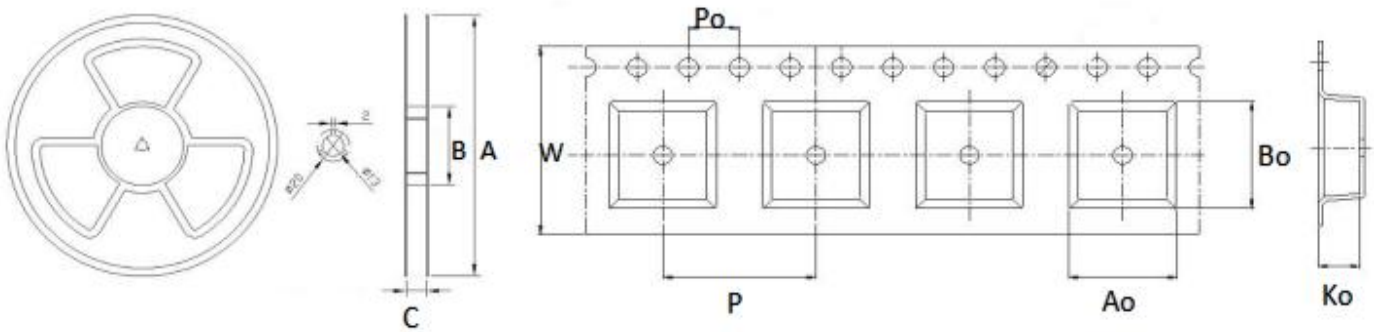


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載帶卷盤尺寸 : (mm)

Packing Dimension

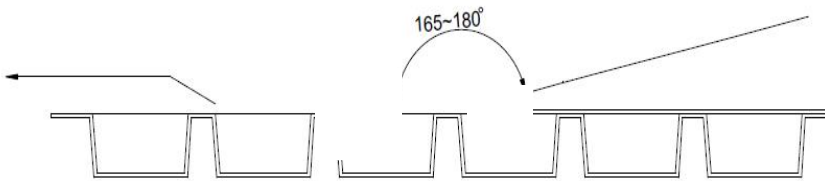
系列 Series	A	B	C	W	P	Po	Ao	Bo	Ko
1008	330	100	25	24	12	4	8.1 Typ	10.9 Typ	7.8 Typ



載帶剝離力:

Typical Pulling Force

20~120 gf



Package Quantity

700pcs/卷盤

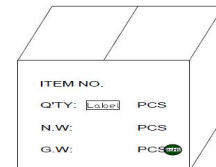
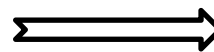
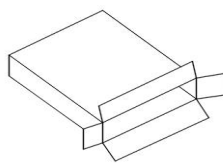
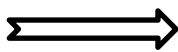
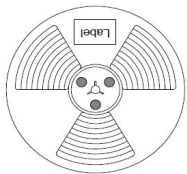
700pcs/Reel

1400pcs/每盒

1400pcs/ Middle box

4200pcs/每箱

4200pcs/ Outer box



© 實際出貨過程，依據客戶需求狀況的不同，包裝數量會有變化，最終的包裝數量請參照實際出貨包裝

In the actual delivery process, the package quantity will change according to the different customer demands. Please refer to the actual shipment quantity for the final package quantity



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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	ISAT1	
	mm	mm	mm	mm	mm	mΩ ±7%	nH±15%	50.0	A
	10.5 Max	8.0 Max	7.5 Max	2.2±0.2	2.55±0.2	0.290	220	△L/L≥20%	
1	10.31	7.75	7.36	2.21	2.60	0.281	207	PASS	
2	10.28	7.79	7.32	2.18	2.58	0.286	210	PASS	
3	10.25	7.72	7.35	2.20	2.54	0.288	205	PASS	
4	10.16	7.73	7.33	2.24	2.52	0.290	212	PASS	
5	10.27	7.68	7.28	2.20	2.55	0.282	215	PASS	
6	10.29	7.70	7.29	2.19	2.53	0.295	207	PASS	
7	10.25	7.75	7.25	2.18	2.53	0.296	205	PASS	
8	10.30	7.70	7.26	2.19	2.54	0.291	211	PASS	
9	10.27	7.68	7.30	2.20	2.52	0.285	209	PASS	
10	10.29	7.70	7.31	2.19	2.59	0.292	211	PASS	
— 平均值	10.27	7.72	7.31	2.20	2.55	0.289	209.20		
R	0.15	0.11	0.11	0.06	0.08	0.015	10.00		

◎ 所有测试数据基于环境温度25℃取得

All test Data is referenced to 25℃ ambient



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 $25 \pm 5^{\circ}\text{C}$ ，濕度75%RH以內，超過保存期限可能會使產品端子電極發生氧化。
- ◎ 運輸(含空運海運)儲存溫度 $-10^{\circ}\text{C} \sim 40^{\circ}\text{C}$ ， $< 70\%RH$ ，禁止長時間存儲。
- ◎ 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°C 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。
- ◎ 本產品的數據更改需經雙方確認，任何一方單方修改無效；客戶收到5天之內，需簽章返回，逾期視為同意。
- ◎ 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，設計使用者如在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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 - 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. $25 \pm 5^{\circ}\text{C}$; RH75%. Please use the product within the warranty period
- © Transportation (including air and sea transportation) storage temperature -10°C to 40°C , <70% RH, long-term storage is prohibited
- © 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 data change of this product shall be confirmed by both parties, and the unilateral modification by either party is invalid; The customer shall sign and return within 5 days after receipt, and the overdue shall be deemed as consent
- © 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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| 5 Atomic energy-related equipment | |
| 6 Explosive ignition control equipment | |
| 7 Transportation control equipment | |

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