

MAGNETIC SHIELDED POWER CHIP INDUCTOR

屏蔽式功率电感



PSPC Series



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# Magnetic Shielded Power Chip Inductor-PSPC Series

## 屏蔽式功率电感-PSPC 系列



### INTRODUCTION AND CHARACTERISTICS 产品介绍及特性

#### INTRODUCTION

◆ These revolutionary, highly reliable wire wound power chip inductors for automatic mounting have been developed in response to the trend toward high density in electronic equipment. The basic function of wire wound chip inductors is filtering, oscillation, delay, trap, etc. Its magnetic shielded type is suitable for high-density mounting and flat bottom surface allows for reliable mounting onto the board.

#### 产品介绍

◆ 为了适应电子设备渐趋高密度的集成方式，我们开发了高可靠性的绕线功率电感。绕线电感基本作用是滤波、振荡、延迟、陷波等。良好的焊接性和磁屏蔽特性使其适合高密度表面安装。

#### CHARACTERISTICS

- ◆ Various high power inductors are superior to be high saturation
- ◆ Excellent solderability and high heat resistance for reflow soldering or wave soldering
- ◆ Various high power surface mountable type inductors are superior to high saturation
- ◆ No cross coupling due to magnetic shield

#### 特性

- ◆ 大功率，高饱和电流，低阻抗
- ◆ 良好的焊接性，适合于回流焊或波峰焊
- ◆ 多种尺寸适合表面高密度贴装
- ◆ 良好的磁屏蔽，无交叉耦合

#### APPLICATIONS

- ◆ LCD television
- ◆ Power supply choke for small electrical equipments such as VTR, LCD display, Notebook, communication equipment, and so on

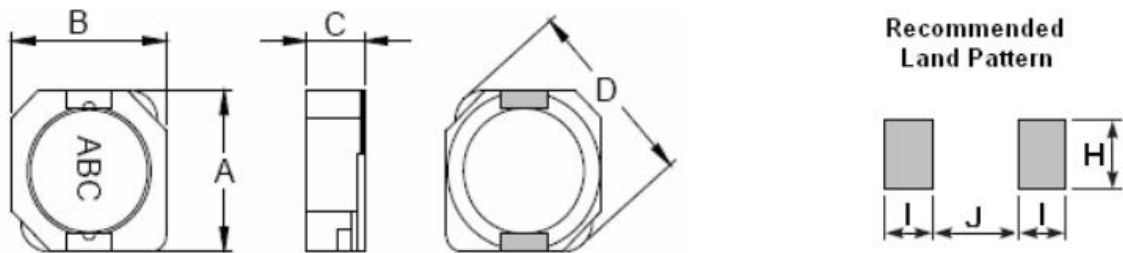
#### 应用产品

- ◆ LCD 电视
- ◆ 录像机、液晶显示器、笔记本电脑、通讯、设备、办公自动化等电子设备的电源扼流

**PRODUCT IDENTIFICATION 产品型号**

**PSPC 1004 F 2R2 N T**  
 ① ② ③ ④ ⑤ ⑥

①Product Series Code 产品系列码	PSPC	Magnetic Shielded Power Chip Inductor-C Type Base 屏蔽式功率电感-C 型结构
②Size Code 尺寸码	1004	长×宽×厚 ( L×W×H) (mm) 10.3×10.5×4.0
③Material Code 材质代号	F	材质代号
④Inductance Value Code 感量值	2R2	2.2uH
	330	33uH
⑤Inductance Tolerance 电感值公差	M	±20%
	N	±30%
⑥Packing 包装形式	T	Tape and Reel 编带

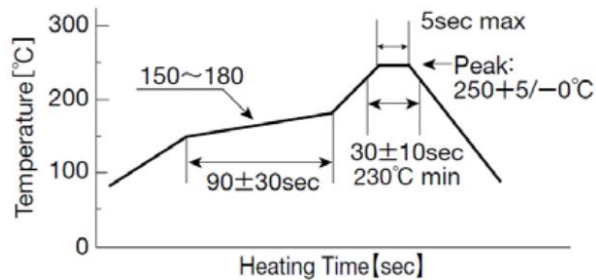
**SHAPE AND DIMENSIONS 外观尺寸**
**RECOMMENDED LAND PATTERN 推荐的焊盘尺寸**


Unit:mm

TYPE	A max.	B max.	C max.	D typ.	I typ.	J typ.	H typ.
PSPC1003	10.6	10.5	3.0	13.5	1.7	7.3	3.6
PSPC1004	10.6	10.5	4.0	13.5	1.7	7.3	3.6
PSPC1005	10.6	10.5	5.2	13.5	1.7	7.3	3.6

**STORAGE AND OPERATING CONDITIONS 储存及操作条件**

Operating Temperature Range	-40°C~+125 °C
Storage Temperature and Humidity Range	-10°C~+40°C, 70%RH max.

**RECOMMENDED SOLDERING CONDITION 建议焊锡方式**
**REFLOW SOLDERING 回流焊**


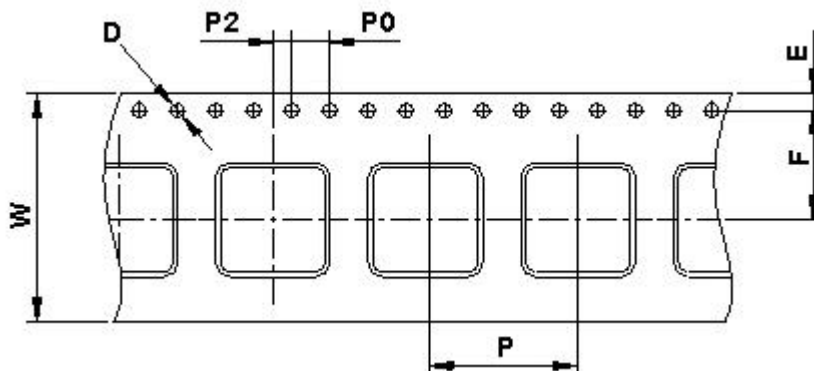
If products are used beyond the range of the recommended conditions, heat stresses may deform the products, and consequently degrade the reliability of the products.

**◆CLEANING**

Note:

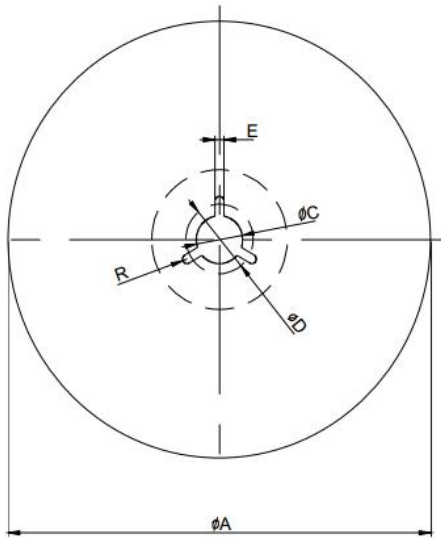
Washing by supersonic waves shall be avoided for PSPC series.

If washed by supersonic waves, the products might be broken.

**PACKING STANDARD 包装标准**
**◆Embossed Tape( 24wide)**


Type	Chip Thickness (max.)	W	D	E	F	P	P0	P2	Quantity (pcs/reel)
	(mm)								Ø330mm
PSPC1003	3.0	24.0	1.55	1.75	11.5	16	4	2	1000
PSPC1004	4.0	24.0	1.55	1.75	11.5	16	4	2	900
PSPC1005	5.2	24.0	1.55	1.75	11.5	16	4	2	700

### ◆ Reel Dimensions



Symbol	ø178mm Reel	Ø330mm Reel
A	Ø178±2	Ø330±2
B	Ø60±2	Ø100±2
C	Ø13±0.8	Ø13±0.8
D	Ø21±0.8	Ø21±0.8
E	2	2
W8	10±1.5	10±1.5
W12	14.5±1.5	14.5±1.5
W16	--	17.4(Typ.)
W24	--	24.4(Typ.)
T	2±0.5	2±0.5
R	1	1

**SPECIFICATIONS 规格特性**
**PSPC 1003 TYPE**

Part Number 型号	Inductance 电感量 L	L Test Condition L 测试频率	DC Resistance 直流电阻 RDC	Rated Current 额定电流 Ir
Units 单位	uH	KHz/V	Ω	mA
PSPC1003F1R0NT	1.0	100/0.3	0.009	6500
PSPC1003F1R5NT	1.5	100/0.3	0.011	5800
PSPC1003F2R2NT	2.2	100/0.3	0.017	5100
PSPC1003F3R3NT	3.3	100/0.3	0.021	4700
PSPC1003F4R7NT	4.7	100/0.3	0.030	4000
PSPC1003F6R8NT	6.8	100/0.3	0.035	3600
PSPC1003F8R2NT	8.2	100/0.3	0.050	3000
PSPC1003F100MT	10	1/0.3	0.058	2800
PSPC1003F150MT	15	1/0.3	0.091	2050
PSPC1003F220MT	22	1/0.3	0.143	1600
PSPC1003F330MT	33	1/0.3	0.202	1350
PSPC1003F470MT	47	1/0.3	0.299	1200
PSPC1003F560MT	56	1/0.3	0.325	1150
PSPC1003F680MT	68	1/0.3	0.429	950
PSPC1003F820MT	82	1/0.3	0.494	800
PSPC1003F101MT	100	1/0.3	0.683	700
PSPC1003F121MT	120	1/0.3	0.754	650

**PSPC 1004 TYPE**

Part Number 型号	Inductance 电感量 L	L Test Condition L 测试频率	DC Resistance 直流电阻 RDC	Rated Current 额定电流 Ir
Units 单位	uH	KHz/V	Ω	mA
PSPC1004F1R5NT	1.5	100/0.3	0.008	6500
PSPC1004F2R5NT	2.5	100/0.3	0.011	6100
PSPC1004F3R3NT	3.3	100/0.3	0.014	5600
PSPC1004F3R8NT	3.8	100/0.3	0.018	5500
PSPC1004F4R7NT	4.7	100/0.3	0.022	5400
PSPC1004F5R2NT	5.2	100/0.3	0.022	5400
PSPC1004F6R8NT	6.8	100/0.3	0.025	5000
PSPC1004F7R0NT	7.0	100/0.3	0.027	4500
PSPC1004F8R2NT	8.2	100/0.3	0.030	4100
PSPC1004F100MT	10	1/0.3	0.035	3800

PSPC1004F150MT	15	1/0.3	0.050	3100
PSPC1004F220MT	22	1/0.3	0.073	2500
PSPC1004F330MT	33	1/0.3	0.093	2200
PSPC1004F470MT	47	1/0.3	0.128	1900
PSPC1004F560MT	56	1/0.3	0.185	1600
PSPC1004F680MT	68	1/0.3	0.213	1420
PSPC1004F820MT	82	1/0.3	0.275	1320
PSPC1004F101MT	100	1/0.3	0.304	1250
PSPC1004F151MT	150	1/0.3	0.506	850
PSPC1004F221MT	220	1/0.3	0.756	700
PSPC1004F331MT	330	1/0.3	1.090	520

**SPECIFICATIONS 规格特性**
**PSPC 1005 TYPE**

Part Number 型号	Inductance 电感量 L	L Test Condition L 测试频率	DC Resistance 直流电阻 RDC	Rated Current 额定电流 Ir
Units 单位	uH	KHz/V	Ω	mA
PSPC1005F3R3NT	3.3	1/0.3	0.013	6000
PSPC1005F4R7NT	4.7	1/0.3	0.016	5700
PSPC1005F6R8NT	6.8	1/0.3	0.020	5350
PSPC1005F8R2NT	8.2	1/0.3	0.023	5000
PSPC1005F100MT	10	1/0.3	0.026	4450
PSPC1005F120MT	12	1/0.3	0.033	3800
PSPC1005F150MT	15	1/0.3	0.041	3400
PSPC1005F180MT	18	1/0.3	0.046	3100
PSPC1005F220MT	22	1/0.3	0.061	2900
PSPC1005F270MT	27	1/0.3	0.069	2600
PSPC1005F330MT	33	1/0.3	0.084	2400
PSPC1005F390MT	39	1/0.3	0.106	2250
PSPC1005F470MT	47	1/0.3	0.130	2000
PSPC1005F560MT	56	1/0.3	0.149	1900
PSPC1005F680MT	68	1/0.3	0.201	1600
PSPC1005F820MT	82	1/0.3	0.227	1450
PSPC1005F101MT	100	1/0.3	0.253	1350
PSPC1005F121MT	120	1/0.3	0.303	1180
PSPC1005F151MT	150	1/0.3	0.370	1100
PSPC1005F181MT	180	1/0.3	0.419	1000
PSPC1005F221MT	220	1/0.3	0.500	940

PSPC1005F271MT	270	1/0.3	0.672	800
PSPC1005F331MT	330	1/0.3	0.812	730
PSPC1005F391MT	390	1/0.3	0.953	700
PSPC1005F471MT	470	1/0.3	1.290	540
PSPC1005F561MT	560	1/0.3	1.430	520
PSPC1005F681MT	680	1/0.3	1.600	510
PSPC1005F821MT	820	1/0.3	1.770	480

※1. All test data is referenced to 20°C ambient;

※2. The maximum rated current is a DC current which causes initial inductance to decrease by 35% or temperature to rise by 40°C, which is smaller(at ambient reference temperature: 20°C