

MAGNETIC SHIELDED POWER CHIP INDUCTOR

屏蔽式功率电感



PSP1 Series



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Magnetic Shielded Power Chip Inductor-PSPI Series

屏蔽式功率电感-PSPI 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

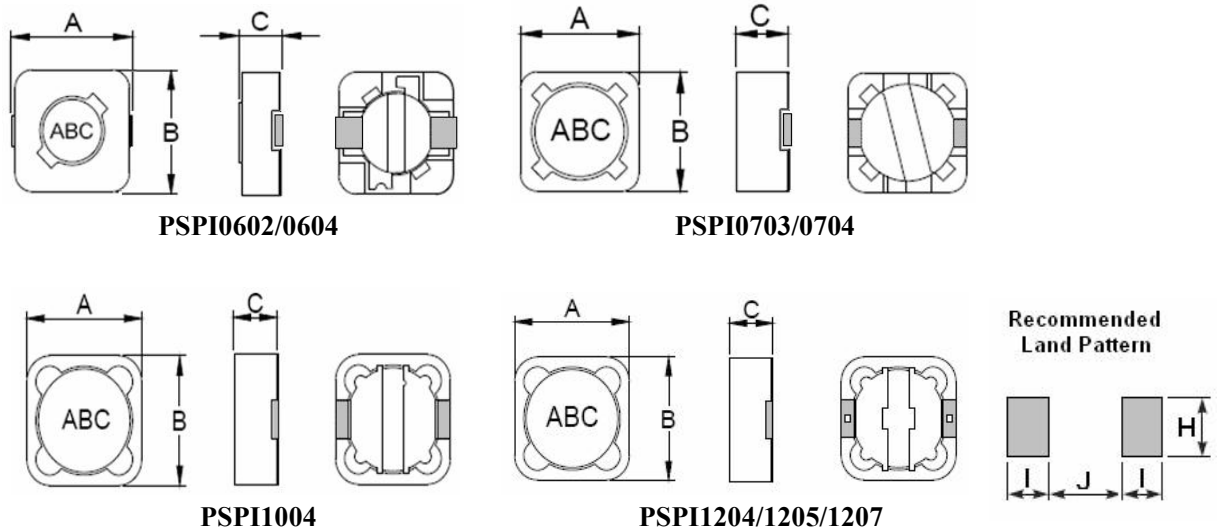
应用产品

- ◆ 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

PSPI 1004 F 2R2 N T
 ① ② ③ ④ ⑤ ⑥

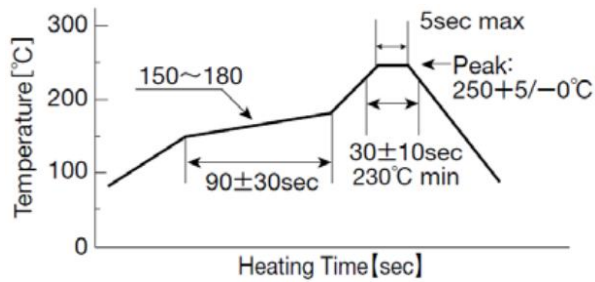
①Product Series Code 产品系列码	PSPI	Magnetic Shielded Power Chip Inductor 屏蔽式功率电感
②Size Code 尺寸码	1004	长×宽×厚 (L×W×H) (mm) 10.5×10.5×4.0
③Material Code 材质代号	F	材质代号
④Inductance Value Code 感量值	2R2	2.2uH
	330	33uH
⑤Inductance Tolerance 电感值公差	M	±20%
	N	±30%
⑥Packing 包装形式	T	Tape and Reel 编带

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


TYPE	A max.	B max.	C max.	I typ.	J typ.	H typ.
PSPI0602	7.0	6.8	3.0	1.4	4.6	1.9
PSPI0604	7.0	6.8	5.0	1.4	4.6	1.9
PSPI0703	7.8	7.8	4.0	1.6	4.8	2.2
PSPI0704	7.8	7.8	5.0	1.6	4.8	2.2
PSPI1004	10.5	10.5	5.0	2.0	6.8	4.4
PSPI1204	12.5	12.5	5.0	2.9	7.0	5.4
PSPI1205	12.5	12.5	6.0	2.9	7.0	5.4
PSPI1207	12.5	12.5	8.0	2.9	7.0	5.4

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


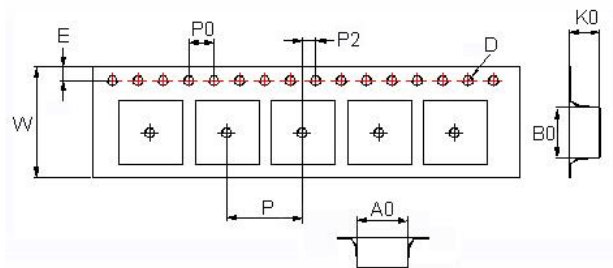
If products are used beyond the range of the recommended conditions, heat stresses may deform the products, and consequently degrade the reliability of the products.

◆CLEANING

Note:

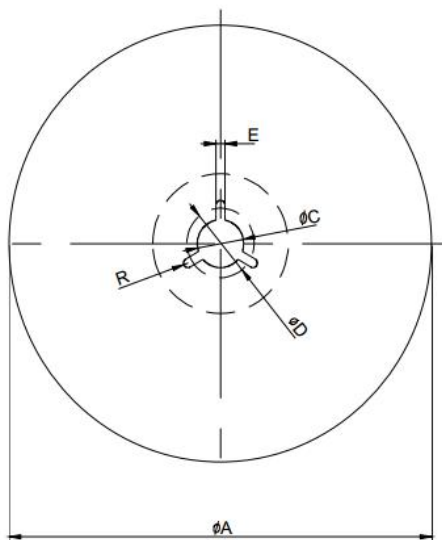
Washing by supersonic waves shall be avoided for PSPI series.

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

PACKING STANDARD 包装标准
◆Embossed Tape(8mm , 12mm ,16mm and 24wide)


Type	Chip Thickness (max.)	W	D	E	P	P0	P2	K0	Quantity (pcs/reel)
	(mm)								Ø330mm
PSPI0602	3.0	16.0	1.55	1.75	12	4	2	3.40	1500
PSPI0604	5.0	16.0	1.55	1.75	12	4	2	4.95	1000
PSPI0703	4.0	16.0	1.55	1.75	12	4	2	3.60	1600
PSPI0704	5.0	16.0	1.55	1.75	12	4	2	5.00	1000
PSPI1004	5.0	24.0	1.50	1.75	16	4	2	4.20	1000
PSPI1204	5.0	24.0	1.55	1.75	16	4	2	5.10	500
PSPI1205	6.0	24.0	1.55	1.75	16	4	2	6.70	600
PSPI1207	8.0	24.0	1.55	1.75	16	4	2	8.70	500

◆ 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
PSPI 0602 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
PSPI0602F3R3NT	3.3	100/0.3	0.068	1940
PSPI0602F4R7NT	4.7	100/0.3	0.080	1630
PSPI0602F5R6NT	5.6	100/0.3	0.096	1400
PSPI0602F100MT	10	1/0.3	0.150	1100
PSPI0602F120MT	12	1/0.3	0.200	1000
PSPI0602F150MT	15	1/0.3	0.230	900
PSPI0602F180MT	18	1/0.3	0.270	800
PSPI0602F220MT	22	1/0.3	0.340	740
PSPI0602F270MT	27	1/0.3	0.380	660
PSPI0602F330MT	33	1/0.3	0.450	590
PSPI0602F390MT	39	1/0.3	0.490	540
PSPI0602F470MT	47	1/0.3	0.690	500
PSPI0602F560MT	56	1/0.3	0.780	460
PSPI0602F680MT	68	1/0.3	1.070	420
PSPI0602F820MT	82	1/0.3	1.210	380
PSPI0602F101MT	100	1/0.3	1.390	340
PSPI0602F121MT	120	1/0.3	1.900	310
PSPI0602F151MT	150	1/0.3	2.180	280
PSPI0602F181MT	180	1/0.3	2.770	260
PSPI0602F221MT	220	1/0.3	3.120	230
PSPI0602F271MT	270	1/0.3	4.380	220
PSPI0602F331MT	330	1/0.3	4.940	190

PSPI 0604 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
PSPI0604F100MT	10	1/0.3	0.120	1350
PSPI0604F120MT	12	1/0.3	0.130	1200
PSPI0604F150MT	15	1/0.3	0.180	1100
PSPI0604F180MT	18	1/0.3	0.240	1000
PSPI0604F220MT	22	1/0.3	0.270	910

PSPI0604F270MT	27	1/0.3	0.300	820
PSPI0604F330MT	33	1/0.3	0.330	750
PSPI0604F390MT	39	1/0.3	0.370	690
PSPI0604F470MT	47	1/0.3	0.520	620
PSPI0604F560MT	56	1/0.3	0.560	580
PSPI0604F680MT	68	1/0.3	0.630	520
PSPI0604F820MT	82	1/0.3	0.710	470
PSPI0604F101MT	100	1/0.3	1.030	430
PSPI0604F121MT	120	1/0.3	1.150	390
PSPI0604F151MT	150	1/0.3	1.680	350
PSPI0604F181MT	180	1/0.3	1.870	320
PSPI0604F221MT	220	1/0.3	2.080	290
PSPI0604F271MT	270	1/0.3	2.370	260
PSPI0604F331MT	330	1/0.3	2.670	230
PSPI0604F391MT	390	1/0.3	2.940	220
PSPI0604F471MT	470	1/0.3	3.930	200

SPECIFICATIONS 规格特性
PSPI 0703 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
PSPI0703F2R2NT	2.2	100/0.3	0.025	3000
PSPI0703F3R3NT	3.3	100/0.3	0.035	2500
PSPI0703F4R7NT	4.7	100/0.3	0.031	2000
PSPI0703F100MT	10	1/0.3	0.072	1680
PSPI0703F120MT	12	1/0.3	0.098	1520
PSPI0703F150MT	15	1/0.3	0.130	1330
PSPI0703F180MT	18	1/0.3	0.140	1200
PSPI0703F220MT	22	1/0.3	0.190	1070
PSPI0703F270MT	27	1/0.3	0.210	960
PSPI0703F330MT	33	1/0.3	0.240	910
PSPI0703F390MT	39	1/0.3	0.320	770
PSPI0703F470MT	47	1/0.3	0.360	760
PSPI0703F560MT	56	1/0.3	0.470	680
PSPI0703F680MT	68	1/0.3	0.520	610
PSPI0703F820MT	82	1/0.3	0.690	570
PSPI0703F101MT	100	1/0.3	0.790	500

PSPI0703F121MT	120	1/0.3	0.890	490
PSPI0703F151MT	150	1/0.3	1.270	430
PSPI0703F181MT	180	1/0.3	1.450	390
PSPI0703F221MT	220	1/0.3	1.650	350
PSPI0703F271MT	270	1/0.3	2.310	320
PSPI0703F331MT	330	1/0.3	2.620	280
PSPI0703F391MT	390	1/0.3	2.940	260
PSPI0703F471MT	470	1/0.3	4.180	240
PSPI0703F561MT	560	1/0.3	4.670	220

SPECIFICATIONS 规格特性
PSPI 0704 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
PSPI0704F100MT	10	1/0.3	0.049	1840
PSPI0704F120MT	12	1/0.3	0.058	1710
PSPI0704F150MT	15	1/0.3	0.081	1470
PSPI0704F180MT	18	1/0.3	0.091	1310
PSPI0704F220MT	22	1/0.3	0.110	1230
PSPI0704F270MT	27	1/0.3	0.150	1120
PSPI0704F330MT	33	1/0.3	0.170	960
PSPI0704F390MT	39	1/0.3	0.230	910
PSPI0704F470MT	47	1/0.3	0.260	880
PSPI0704F560MT	56	1/0.3	0.350	750
PSPI0704F680MT	68	1/0.3	0.380	690
PSPI0704F820MT	82	1/0.3	0.430	610
PSPI0704F101MT	100	1/0.3	0.610	600
PSPI0704F121MT	120	1/0.3	0.660	520
PSPI0704F151MT	150	1/0.3	0.880	460
PSPI0704F181MT	180	1/0.3	0.980	420
PSPI0704F221MT	220	1/0.3	1.170	360
PSPI0704F271MT	270	1/0.3	1.640	340
PSPI0704F331MT	330	1/0.3	1.860	320
PSPI0704F391MT	390	1/0.3	2.850	290
PSPI0704F471MT	470	1/0.3	3.010	260
PSPI0704F561MT	560	1/0.3	3.620	230

SPECIFICATIONS 规格特性
PSPI 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
PSP11004F2R2NT	2.2	100/0.3	0.018	4000
PSP11004F3R8NT	3.8	100/0.3	0.028	3500
PSP11004F4R7NT	4.7	100/0.3	0.035	3200
PSP11004F6R8NT	6.8	100/0.3	0.044	2800
PSP11004F100MT	10	1/0.3	0.050	2400
PSP11004F120MT	12	1/0.3	0.054	2250
PSP11004F150MT	15	1/0.3	0.061	2000
PSP11004F180MT	18	1/0.3	0.084	1800
PSP11004F220MT	22	1/0.3	0.094	1650
PSP11004F270MT	27	1/0.3	0.110	1450
PSP11004F330MT	33	1/0.3	0.150	1350
PSP11004F390MT	39	1/0.3	0.170	1200
PSP11004F470MT	47	1/0.3	0.210	1100
PSP11004F560MT	56	1/0.3	0.230	1000
PSP11004F680MT	68	1/0.3	0.260	930
PSP11004F820MT	82	1/0.3	0.360	840
PSP11004F101MT	100	1/0.3	0.410	760
PSP11004F121MT	120	1/0.3	0.450	700
PSP11004F151MT	150	1/0.3	0.640	630
PSP11004F181MT	180	1/0.3	0.840	570
PSP11004F221MT	220	1/0.3	0.960	520
PSP11004F271MT	270	1/0.3	1.070	470
PSP11004F331MT	330	1/0.3	1.370	430
PSP11004F391MT	390	1/0.3	1.550	390
PSP11004F471MT	470	1/0.3	1.740	360

SPECIFICATIONS 规格特性
PSPI 1204 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
PSP1204F1R0NT	1	100/0.3	0.010	7000
PSP1204F2R2NT	2.2	100/0.3	0.014	5700
PSP1204F3R3NT	3.3	100/0.3	0.015	5200
PSP1204F4R7NT	4.7	100/0.3	0.018	4900
PSP1204F5R6NT	5.6	100/0.3	0.020	4500
PSP1204F6R8NT	6.8	100/0.3	0.023	4200
PSP1204F8R2NT	8.2	100/0.3	0.026	4000
PSP1204F100MT	10	1/0.3	0.028	3800
PSP1204F120MT	12	1/0.3	0.038	3500
PSP1204F150MT	15	1/0.3	0.050	3200
PSP1204F180MT	18	1/0.3	0.057	3100
PSP1204F220M	22	1/0.3	0.066	2900
PSP1204F270MT	27	1/0.3	0.080	2800
PSP1204F330MT	33	1/0.3	0.097	2700
PSP1204F390MT	39	1/0.3	0.132	2100
PSP1204F470MT	47	1/0.3	0.160	1900
PSP1204F560MT	56	1/0.3	0.190	1800
PSP1204F680MT	68	1/0.3	0.220	1500
PSP1204F820MT	82	1/0.3	0.260	1300
PSP1204F101MT	100	1/0.3	0.310	1200
PSP1204F121MT	120	1/0.3	0.380	1100
PSP1204F151MT	150	1/0.3	0.530	950
PSP1204F181MT	180	1/0.3	0.620	850
PSP1204F221MT	220	1/0.3	0.700	800
PSP1204F271MT	270	1/0.3	0.870	600
PSP1204F331MT	330	1/0.3	0.990	500
PSP1204F471MT	470	1/0.3	1.100	250

PSPI 1205 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

PSP11205F1R0NT	1	100/0.3	0.010	8000
PSP11205F2R2NT	2.2	100/0.3	0.014	7800
PSP11205F2R4NT	2.4	100/0.3	0.014	7500
PSP11205F3R3NT	3.3	100/0.3	0.014	6800
PSP11205F4R7NT	4.7	100/0.3	0.020	5600
PSP11205F5R8NT	5.8	100/0.3	0.020	5200
PSP11205F8R2NT	8.2	100/0.3	0.021	4400
PSP11205F100MT	10	1/0.3	0.025	4000
PSP11205F120MT	12	1/0.3	0.027	3500
PSP11205F150MT	15	1/0.3	0.030	3300
PSP11205F180MT	18	1/0.3	0.034	3000
PSP11205F220MT	22	1/0.3	0.036	2800
PSP11205F270MT	27	1/0.3	0.051	2300
PSP11205F330MT	33	1/0.3	0.057	2100
PSP11205F390MT	39	1/0.3	0.068	2000
PSP11205F470MT	47	1/0.3	0.075	1800
PSP11205F560MT	56	1/0.3	0.110	1700
PSP11205F680MT	68	1/0.3	0.120	1500
PSP11205F820MT	82	1/0.3	0.140	1400
PSP11205F101MT	100	1/0.3	0.160	1300
PSP11205F121MT	120	1/0.3	0.170	1100
PSP11205F151MT	150	1/0.3	0.230	1000
PSP11205F181MT	180	1/0.3	0.290	900
PSP11205F221MT	220	1/0.3	0.400	800
PSP11205F271MT	270	1/0.3	0.460	750
PSP11205F331MT	330	1/0.3	0.510	680
PSP11205F391MT	390	1/0.3	0.690	650
PSP11205F471MT	470	1/0.3	0.770	580
PSP11205F561MT	560	1/0.3	0.860	540
PSP11205F681MT	680	1/0.3	1.200	480
PSP11205F821MT	820	1/0.3	1.340	430
PSP11205F102MT	1000	1/0.3	1.800	400

SPECIFICATIONS 规格特性
PSPI 1207 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

PSP11207F1R0NT	1	100/0.3	0.009	10000
PSP11207F2R2NT	2.2	100/0.3	0.012	8000
PSP11207F2R7NT	2.7	100/0.3	0.013	8000
PSP11207F3R3NT	3.3	100/0.3	0.013	8000
PSP11207F3R9NT	3.9	100/0.3	0.013	7500
PSP11207F4R7NT	4.7	100/0.3	0.016	6800
PSP11207F6R1NT	6.1	100/0.3	0.018	6600
PSP11207F6R8NT	6.8	100/0.3	0.019	6600
PSP11207F7R6NT	7.6	100/0.3	0.020	5900
PSP11207F8R2NT	8.2	100/0.3	0.020	5600
PSP11207F100MT	10	1/0.3	0.021	5400
PSP11207F120MT	12	1/0.3	0.024	4900
PSP11207F150MT	15	1/0.3	0.027	4500
PSP11207F180MT	18	1/0.3	0.039	3900
PSP11207F220MT	22	1/0.3	0.043	3600
PSP11207F270MT	27	1/0.3	0.046	3400
PSP11207F330MT	33	1/0.3	0.065	3000
PSP11207F390MT	39	1/0.3	0.073	2750
PSP11207F470MT	47	1/0.3	0.100	2500
PSP11207F560MT	56	1/0.3	0.110	2350
PSP11207F680MT	68	1/0.3	0.140	2100
PSP11207F820MT	82	1/0.3	0.160	1950
PSP11207F101MT	100	1/0.3	0.220	1700
PSP11207F121MT	120	1/0.3	0.250	1600
PSP11207F151MT	150	1/0.3	0.280	1420
PSP11207F181MT	180	1/0.3	0.350	1300
PSP11207F221MT	220	1/0.3	0.390	1160
PSP11207F271MT	270	1/0.3	0.560	1060
PSP11207F331MT	330	1/0.3	0.640	950
PSP11207F391MT	390	1/0.3	0.700	880
PSP11207F471MT	470	1/0.3	0.980	790
PSP11207F561MT	560	1/0.3	1.070	730
PSP11207F681MT	680	1/0.3	1.460	670
PSP11207F821MT	820	1/0.3	1.640	600
PSP11207F102MT	1000	1/0.3	1.820	550