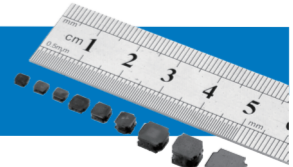


绕线贴片功率电感—SWPA 系列

Wire Wound SMD Power Inductors – SWPA Series



工作温度
Operating Temp

◆ -40°C ~ +125°C (Including self-heating)

特征
Features

- ◆ 磁性胶水涂敷结构极大减少了蜂鸣声
- ◆ 在磁芯上金属化电极, 抗跌落冲击强, 经久耐用
- ◆ 闭合磁路结构设计, 漏磁少, 抗 EMI 能力强
- ◆ 电流特性较同等尺寸传统电感高出 30% 以上
- ◆ 省空间, 更省电

- ◆ Magnetic-resin shielded Construction reduces buzz noise to ultra-low levels
- ◆ Metallization on ferrite core results in excellent shock resistance and damage-free durability
- ◆ Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI)
- ◆ 30% higher current rating than conventional inductors of equal size
- ◆ Takes up less PCB real estate and save more power

用途
Applications

- ◆ 智能手机、智能电视、机顶盒、笔记本电脑
- ◆ 车载导航影音、通讯设备
- ◆ 虚拟现实、增强现实
- ◆ LED 照明

- ◆ Smart phone, smart TV, set top box, notebook
- ◆ Car navigation systems, telecomm base stations
- ◆ VR, AR
- ◆ LED lighting

产品型号

Product Identification

1	2	3	4	5	6	7
SWPA	3012	S	1R0	N	T	□□□

1	分类 Type
SWPA	绕线贴片功率电感 Wire Wound SMD Power Inductor

3	特性类别 Feature Type
S	标准型 Standard

4	公称电感量 Nominal Inductance
Example	Nominal Value
1R0	1.0μH
100	10μH

5	感量精度 Inductance Tolerance
K	± 10%
M	± 20%
N	± 30%

6	包装 Packing
T	Tape Carrier Package

7	设计代号 Design Code
□□□	Standard product is blank

2	外形尺寸尺寸 (L×W×H) [mm] External Dimensions (L×W×H) [mm]
252010	2.5×2.0×1.0
252012	2.5×2.0×1.2
3010	3.0×3.0×1.0
3012	3.0×3.0×1.2
3015	3.0×3.0×1.5
4010	4.0×4.0×1.0
4012	4.0×4.0×1.2
4018	4.0×4.0×1.8
4020	4.0×4.0×2.0
4030	4.0×4.0×3.0
5012	5.0×5.0×1.2
5020	5.0×5.0×2.0
5040	5.0×5.0×4.0
5045	5.0×5.0×4.5
6020	6.0×6.0×2.0
6028	6.0×6.0×2.8
6045	6.0×6.0×4.5
8040	8.0×8.0×4.0
8060	8.0×8.0×6.0
8065	8.0×8.0×6.5

外观尺寸 Shape and Dimensions

Fig.1

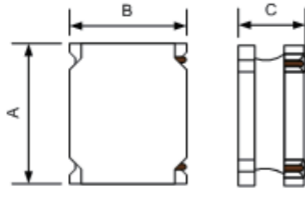


Fig.2

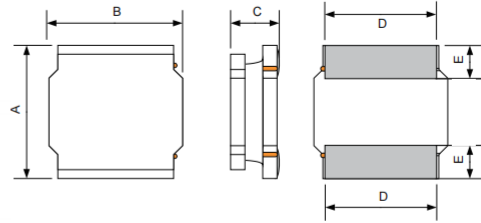
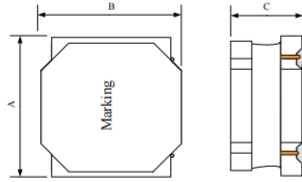
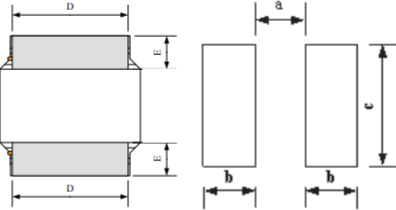


Fig.3



Recommended Land Pattern



Unit: mm

Series	Shape	A	B	C	D	E	a Typ.	b Typ.	c Typ.
SWPA252010S	Fig.1	2.5±0.1	2.0±0.1	1.0 Max.	2.0±0.2	0.80±0.2	0.80	0.85	2.0
SWPA252012S	Fig.1	2.5±0.1	2.0±0.1	1.2 Max.	2.0±0.2	0.80±0.2	0.80	0.85	2.0
SWPA3010S	Fig.2	3.0±0.2	3.0±0.2	1.0 Max.	2.5±0.2	0.75±0.2	1.5	0.8	2.7
SWPA3012S	Fig.2	3.0±0.2	3.0±0.2	1.2 Max.	2.5±0.2	0.75±0.2	1.5	0.8	2.7
SWPA3015S	Fig.2	3.0±0.2	3.0±0.2	1.5 Max.	2.5±0.2	0.75±0.2	1.5	0.8	2.7
SWPA4010S	Fig.2	4.0±0.2	4.0±0.2	1.0 Max.	3.3±0.2	0.95±0.2	1.9	1.1	3.7
SWPA4012S	Fig.2	4.0±0.2	4.0±0.2	1.2 Max.	3.3±0.2	0.95±0.2	1.9	1.1	3.7
SWPA4018S	Fig.2	4.0±0.2	4.0±0.2	1.8 Max.	3.3±0.2	0.95±0.2	1.9	1.1	3.7
SWPA4020S	Fig.2	4.0±0.2	4.0±0.2	2.0 Max.	3.3±0.2	0.95±0.2	1.9	1.1	3.7
SWPA4030S	Fig.2	4.0±0.2	4.0±0.2	3.0 Max.	3.3±0.2	0.95±0.2	1.9	1.1	3.7
SWPA5012S	Fig.3	5.0±0.2	5.0±0.2	1.2 Max.	4.0±0.2	1.25±0.2	2.3	1.4	4.2
SWPA5020S	Fig.3	5.0±0.2	5.0±0.2	2.0 Max.	4.0±0.2	1.25±0.2	2.3	1.4	4.2
SWPA5040S	Fig.3	5.0±0.2	5.0±0.2	4.0 Max.	4.0±0.2	1.25±0.2	2.3	1.4	4.2
SWPA5045S	Fig.3	5.0±0.2	5.0±0.2	4.5 Max.	4.0±0.2	1.30±0.2	2.3	1.4	4.2
SWPA6020S	Fig.2	6.0±0.3	6.0±0.3	2.0 Max.	4.9±0.3	1.55±0.3	2.8	1.7	5.7
SWPA6028S	Fig.2	6.0±0.3	6.0±0.3	2.8 Max.	4.9±0.3	1.55±0.3	2.8	1.7	5.7
SWPA6045S	Fig.2	6.0±0.3	6.0±0.3	4.5 Max.	4.9±0.3	1.55±0.3	2.8	1.7	5.7
SWPA8040S	Fig.2	8.0±0.3	8.0±0.3	4.2 Max.	6.3±0.3	2.00±0.3	3.8	2.2	7.5
SWPA8060S	Fig.2	8.0±0.3	8.0±0.3	6.0 Max.	6.3±0.3	2.00±0.3	3.8	2.2	7.5
SWPA8065S	Fig.3	8.0±0.3	8.0±0.3	6.5 Max.	6.3±0.3	2.00±0.3	3.8	2.2	7.5

※*1: 除 252010S、252012S、3010S、3012S 和 3015S 系列外, 所有产品都印有标记。

※*1: All products are printed with Marking except the 252010S, 252012S, 3010S, 3012S and 3015S series.

规格特性 Specifications

SWPA3012S Series

型号 Part Number	电感量 Inductance	直流电阻 DC Resistance		自谐频率 Self-resonant Frequency	饱和电流 *3 Saturation Current		温升电流 *4 Heat Rating Current	
	@100kHz,1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
单位 Units	μH	Ω		MHz	A		A	
符号 Symbol	L	DCR		S.R.F	Isat		Irms	
SWPA3012S270MT	27±20%	1.131	0.870	21	0.35	0.48	0.47	0.51
SWPA3012S330MT	33±20%	1.138	0.875	18	0.36	0.46	0.46	0.50
SWPA3012S360MT	36±20%	1.235	0.950	18	0.34	0.44	0.44	0.48
SWPA3012S390MT	39±20%	1.729	1.330	18	0.30	0.39	0.37	0.41
SWPA3012S470MT	47±20%	1.885	1.450	14	0.27	0.35	0.35	0.40
SWPA3012S560MT	56±20%	1.794	1.380	9	0.26	0.33	0.28	0.40
SWPA3012S680MT	68±20%	2.171	1.670	7	0.24	0.29	0.33	0.37
SWPA3012S820MT	82±20%	3.302	2.540	7	0.17	0.27	0.27	0.31
SWPA3012S101MT	100±20%	3.718	2.860	5	0.21	0.23	0.25	0.29

SWPA3015S Series

型号 Part Number	电感量 Inductance	直流电阻 DC Resistance		自谐频率 Self-resonant Frequency	饱和电流 *3 Saturation Current		温升电流 *4 Heat Rating Current	
	@100kHz,1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
单位 Units	μH	Ω		MHz	A		A	
符号 Symbol	L	DCR		S.R.F	Isat		Irms	
SWPA3015SR50NT	0.5±30%	0.039	0.030	162	3.90	4.20	2.60	2.80
SWPA3015S1R0NT	1.0±30%	0.039	0.030	150	2.32	2.80	2.35	2.50
SWPA3015S1R2NT	1.2±30%	0.052	0.040	110	2.21	3.10	1.95	2.30
SWPA3015S1R5NT	1.5±30%	0.065	0.050	100	2.30	2.70	1.70	2.20
SWPA3015S1R8NT	1.8±30%	0.065	0.050	92	1.75	2.20	1.70	2.20
SWPA3015S2R2NT	2.2±30%	0.078	0.060	86	1.60	2.00	1.60	2.00
SWPA3015S2R7NT	2.7±30%	0.098	0.075	64	1.52	1.90	1.43	1.90
SWPA3015S3R3MT	3.3±20%	0.104	0.080	68	1.32	1.81	1.36	1.60
SWPA3015S3R6MT	3.6±20%	0.137	0.105	59	1.28	1.60	1.20	1.50
SWPA3015S3R9MT	3.9±20%	0.137	0.105	47	1.20	1.40	1.20	1.50
SWPA3015S4R3MT	4.3±20%	0.150	0.115	53	1.20	1.40	1.14	1.30
SWPA3015S4R7MT	4.7±20%	0.163	0.125	46	1.10	1.40	1.09	1.30
SWPA3015S5R1MT	5.1±20%	0.173	0.133	49	1.00	1.20	1.05	1.20
SWPA3015S6R2MT	6.2±20%	0.254	0.195	46	1.00	1.20	0.86	1.00
SWPA3015S6R8MT	6.8±20%	0.260	0.20	39	0.85	1.10	0.85	1.10
SWPA3015S100MT	10±20%	0.325	0.250	41	0.72	0.92	0.77	0.90
SWPA3015S120MT	12±20%	0.416	0.320	32	0.70	0.90	0.68	0.89
SWPA3015S150MT	15±20%	0.455	0.350	30	0.66	0.88	0.65	0.72
SWPA3015S180MT	18±20%	0.559	0.430	23	0.56	0.72	0.59	0.72
SWPA3015S220MT	22±20%	0.598	0.460	23	0.52	0.68	0.57	0.69
SWPA3015S270MT	27±20%	0.949	0.730	22	0.48	0.56	0.45	0.56
SWPA3015S330MT	33±20%	1.066	0.820	20	0.44	0.53	0.43	0.51
SWPA3015S390MT	39±20%	1.294	0.995	14	0.41	0.55	0.39	0.44
SWPA3015S430MT	43±20%	1.378	1.060	16	0.37	0.43	0.37	0.48
SWPA3015S470MT	47±20%	1.625	1.250	14	0.35	0.43	0.35	0.44
SWPA3015S560MT	56±20%	1.664	1.280	13	0.33	0.42	0.34	0.41
SWPA3015S620MT	62±20%	2.093	1.610	13	0.30	0.40	0.30	0.41
SWPA3015S680MT	68±20%	3.510	2.700	11	0.28	0.37	0.23	0.31
SWPA3015S101MT	100±20%	4.043	3.110	7.2	0.23	0.25	0.21	0.25
SWPA3015S151MT	150±20%	4.940	3.80	4.5	0.18	0.22	0.19	0.23