

绕线贴片功率电感—RWPA4012S 系列

Wire Wound SMD Power Inductors—RWPA4012S Series

Operating temperature range: -25°C to +120°C (Including self-heating)



特征

- 磁性胶水涂敷结构极大减少了蜂鸣声
- 直接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
- 同等尺寸，额定电流特性较传统电感高出 30% 以上
- 省空间，更省电

FEATURES

- 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

- LED 照明
- 多功能手机
- 平板电视、蓝光 DVD、机顶盒
- 笔记本电脑、台式电脑、服务器、显卡
- 便携式游戏机、个人导航系统、多媒体
- 汽车产品
- 通信设备

APPLICATIONS

- LED Lighting
- Next-generation mobile devices with multifunction such as adding color TV and digital movie cameras
- Flat-screen TVs, blue-ray disc recorders, set top box
- Notebooks, desktop computers, servers, graphic cards
- Portable gaming devices, personal navigation systems, personal multimedia devices
- Automotive systems
- Telecom base stations

产品型号

PRODUCT IDENTIFICATION

RWPA

4012

S



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①	分类 Type
RWPA	Wire Wound SMD Power Inductor, Newly Magnetic-resin Shielded Structure

④	公称感量 Nominal Inductance
Example	Nominal Value
1R0	1μH
100	10μH

②	外形尺寸(L×H) (mm) External Dimensions(L×H) [mm]
4012	4.0X1.2

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

③	特性类型 Feature type
S	标准型 Standard

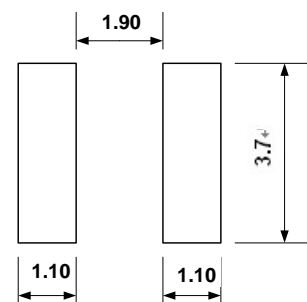
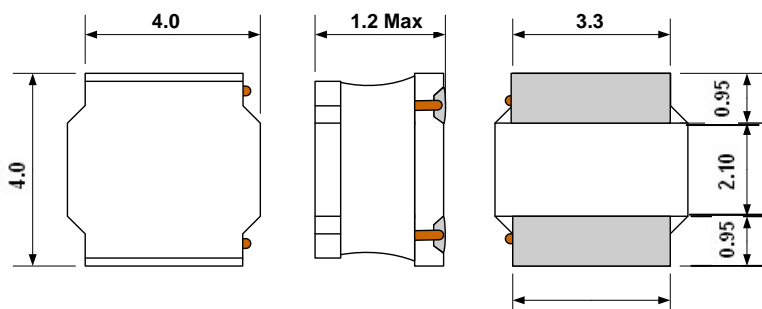
⑥	包装 Packing
T	编带 Tape Carrier Package

外观尺寸

SHAPE AND DIMENSIONS

Unit: mm Tolerance: ±0.2

Recommended Land Pattern



RWPA4012S Series

Part Number 型号	Inductance 电感量 @100KHz,1V	DC Resistance 直流电阻 (±30%)	Min. Self-resonant Frequency 自谐频率	Saturation Current 饱和电流* ³	Heat Rating Current 温升电流* ⁴
Units 单位	μH	Ω	MHz	A	A
Symbol 符号	L	DCR	S.R.F	Isat	Irms
RWPA4012SR82NT	0.82±30%	0.050	150	3.53	1.65
RWPA4012S1R0NT	1.0±30%	0.050	120	2.61	1.65
RWPA4012S1R5NT	1.5±30%	0.065	90	2.10	1.46
RWPA4012S1R8NT	1.8±30%	0.080	88	2.47	1.32
RWPA4012S2R2NT	2.2±30%	0.080	74	1.76	1.32
RWPA4012S2R7NT	2.7±30%	0.090	71	1.90	1.25
RWPA4012S3R3NT	3.3±30%	0.113	60	1.25	1.12
RWPA4012S3R6NT	3.6±30%	0.110	57	1.20	1.12
RWPA4012S4R3NT	4.3±30%	0.140	54	1.75	1.00
RWPA4012S4R7NT	4.7±30%	0.125	50	1.15	1.05
RWPA4012S5R1NT	5.1±30%	0.155	50	1.21	0.95
RWPA4012S6R8MT	6.8±20%	0.198	40	0.95	0.84
RWPA4012S100MT	10±20%	0.265	33	0.80	0.77
RWPA4012S120MT	12±20%	0.290	32	0.66	0.70
RWPA4012S150MT	15±20%	0.340	25	0.56	0.64
RWPA4012S180MT	18±20%	0.470	23	0.55	0.55
RWPA4012S220MT	22±20%	0.570	20	0.54	0.55
RWPA4012S270MT	27±20%	0.720	18	0.50	0.45
RWPA4012S330MT	33±20%	0.810	17	0.42	0.42
RWPA4012S360MT	36±20%	0.900	14	0.40	0.40
RWPA4012S390MT	39±20%	1.100	16	0.55	0.37
RWPA4012S470MT	47±20%	1.100	12	0.35	0.37
RWPA4012S560MT	56±20%	1.250	11	0.33	0.33
RWPA4012S680MT	68±20%	1.460	11	0.30	0.31
RWPA4012S820MT	82±20%	2.140	11	0.28	0.26
RWPA4012S101MT	100±20%	2.210	9.4	0.25	0.25

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

※2. Rated current: Isat or Irms, whichever is smaller;

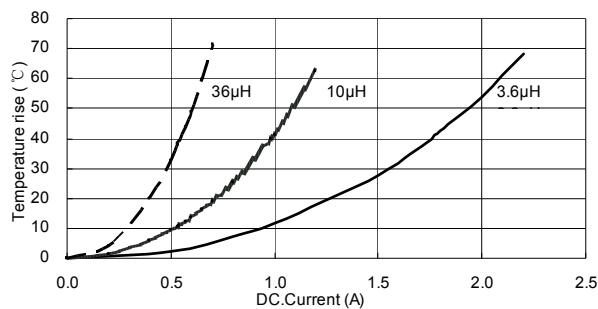
※*3. Isat: DC current at which the inductance drops approximate 30% from its value without current;

※*4. Irms: DC current that causes the temperature rise ($\Delta T = 40^{\circ}\text{C}$) from 20°C ambient.

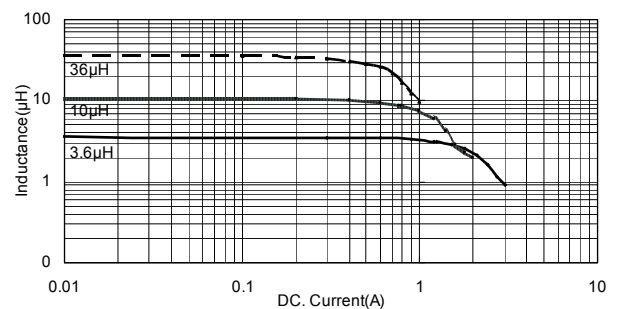
电气特性

TYPICAL ELECTRICAL CHARACTERISTICS

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



Weight: 74.2mg

Tape and reel: 2000/13" reel, 12 mm tape width