

绕线贴片功率电感—RWPA4020S 系列

Wire Wound SMD Power Inductors—RWPA4020S 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

4020

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] |
| 4020 | 4.0X2.0 |

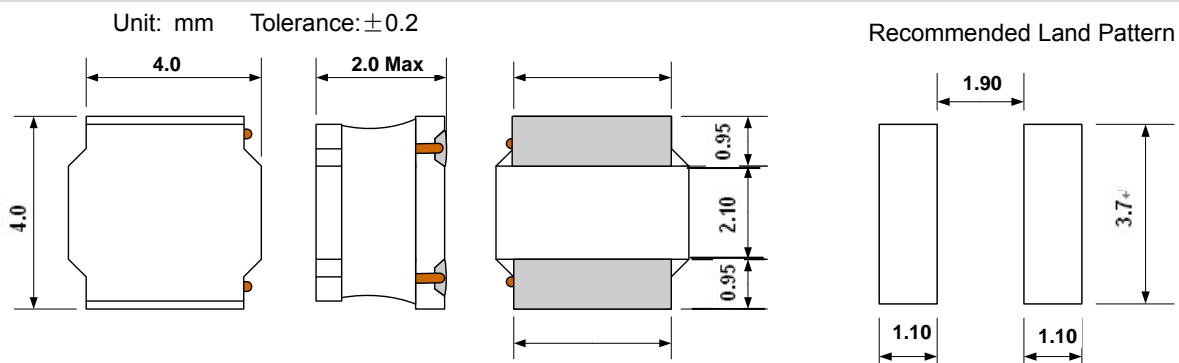
| | |
|---|---------------------------|
| ⑤ | 感量精度 Inductance Tolerance |
| N | ±30% |
| M | ±20% |

| | |
|---|-------------------|
| 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



RWPA4020S 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 |
| RWPA4020S1R0NT | 1.0±30% | 0.029 | 75 | 4.85 | 2.15 |
| RWPA4020S1R2NT | 1.2±30% | 0.029 | 72 | 5.10 | 2.15 |
| RWPA4020S1R5NT | 1.5±30% | 0.035 | 71 | 4.45 | 1.98 |
| RWPA4020S2R2NT | 2.2±30% | 0.040 | 49 | 3.40 | 1.85 |
| RWPA4020S3R3MT | 3.3±20% | 0.070 | 44 | 3.20 | 1.40 |
| RWPA4020S3R6MT | 3.6±20% | 0.055 | 49 | 2.80 | 1.54 |
| RWPA4020S4R7MT | 4.7±20% | 0.075 | 42 | 2.35 | 1.34 |
| RWPA4020S5R1MT | 5.1±20% | 0.085 | 42 | 2.30 | 1.27 |
| RWPA4020S5R6MT | 5.6±20% | 0.090 | 30 | 2.20 | 1.22 |
| RWPA4020S6R2MT | 6.2±20% | 0.115 | 36 | 2.15 | 1.08 |
| RWPA4020S6R8MT | 6.8±20% | 0.125 | 33 | 2.20 | 1.04 |
| RWPA4020S7R5MT | 7.5±20% | 0.115 | 30 | 1.85 | 1.08 |
| RWPA4020S8R2MT | 8.2±20% | 0.125 | 27 | 1.75 | 1.04 |
| RWPA4020S100MT | 10±20% | 0.165 | 26 | 1.60 | 0.90 |
| RWPA4020S120MT | 12±20% | 0.175 | 26 | 1.50 | 0.88 |
| RWPA4020S150MT | 15±20% | 0.230 | 24 | 1.35 | 0.77 |
| RWPA4020S220MT | 22±20% | 0.350 | 15 | 1.05 | 0.62 |
| RWPA4020S270MT | 27±20% | 0.545 | 14 | 1.02 | 0.50 |
| RWPA4020S330MT | 33±20% | 0.550 | 11 | 0.85 | 0.49 |
| RWPA4020S390MT | 39±20% | 0.650 | 11 | 0.82 | 0.46 |
| RWPA4020S430MT | 43±20% | 0.660 | 10 | 0.77 | 0.45 |
| RWPA4020S470MT | 47±20% | 0.710 | 10 | 0.74 | 0.44 |
| RWPA4020S510MT | 51±20% | 0.750 | 10 | 0.70 | 0.42 |
| RWPA4020S560MT | 56±20% | 0.800 | 10 | 0.66 | 0.41 |
| RWPA4020S620MT | 62±20% | 0.900 | 9.6 | 0.65 | 0.39 |
| RWPA4020S680MT | 68±20% | 1.060 | 7.7 | 0.61 | 0.36 |
| RWPA4020S750MT | 75±20% | 1.120 | 7.7 | 0.60 | 0.35 |
| RWPA4020S820MT | 82±20% | 1.170 | 7.2 | 0.56 | 0.34 |
| RWPA4020S101MT | 100±20% | 1.350 | 6.3 | 0.52 | 0.31 |

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

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

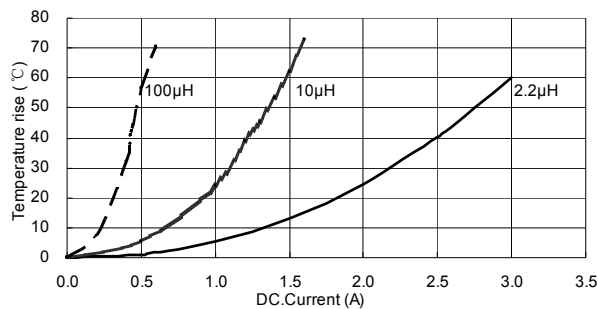
※*3. Isat: DC current at which the inductance drops approximate 30% from its value without current;

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

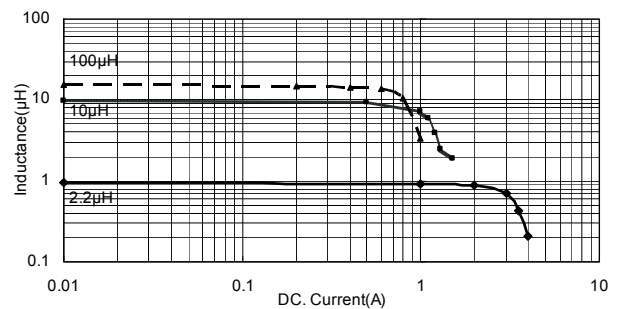
电气特性

TYPICAL ELECTRICAL CHARACTERISTICS

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



Weight: 113.1mg

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