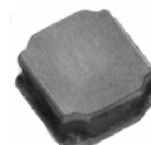


绕线贴片功率电感—ALWPI4020- 系列

Wire Wound SMD Power Inductors—ALWPI4020- Series

Operating temperature range: -25℃ to +120℃ (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
- Telecomm base stations

产品型号

PRODUCT IDENTIFICATION

ALWPI

4020

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①	分类 Type
ALWPI	Wire wound SMD power inductor

②	外形尺寸(L×H) (mm) External Dimensions(L×H) [mm]
4020	4.0X2.0

③	特性类型 Feature type
—	标准型 Standard

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

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

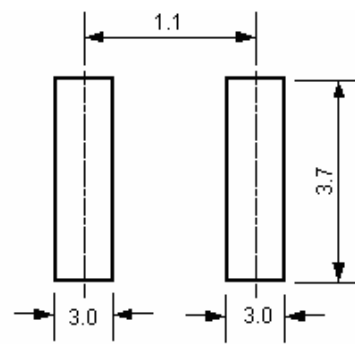
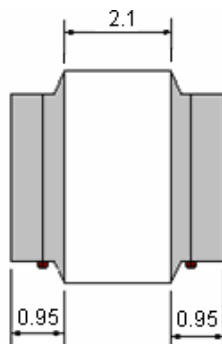
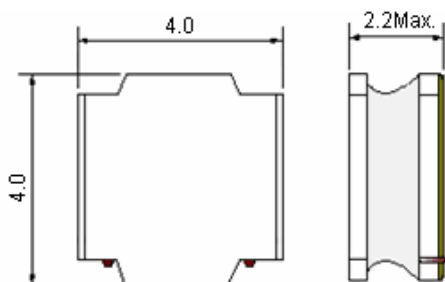
⑥	包装 Packing
T	编带 Tape Carrier Package

外观尺寸

SHAPE AND DIMENSIONS

Unit: mm Tolerance: ±0.3

Recommended Land Pattern



ALEVEL

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规格特性

SPECIFICATIONS

ALWPI4020- 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	Max. Saturation Current 直流重叠电流*3	Max. Heat Rating Current 温升许容电流*4
Units 单位	μH	Ω	MHz	A	A
Symbol 符号	L	DCR	SRF	Isat	Irms
ALWPI4020-1R0NT	1.0±30%	0.020	98	4.85	2.60
*4020-1R2NT	1.2±30%	0.020	86	4.58	2.50
*4020-1R5NT	1.5±30%	0.030	86	3.85	2.15
*4020-2R2NT	2.2±30%	0.040	49	3.40	1.85
*4020-3R3NT	3.3±30%	0.070	44	3.20	1.40
*4020-3R6NT	3.6±30%	0.055	49	2.80	1.54
*4020-4R7MT	4.7±20%	0.075	42	2.35	1.34
*4020-5R1MT	5.1±20%	0.085	42	2.30	1.27
*4020-5R6MT	5.6±20%	0.090	30	2.20	1.22
*4020-6R2MT	6.2±20%	0.115	36	2.15	1.08
*4020-6R8MT	6.8±20%	0.125	33	2.20	1.04
*4020-7R5MT	7.5±20%	0.115	30	1.85	1.08
*4020-8R2MT	8.2±20%	0.125	27	1.75	1.04
*4020-100MT	10±20%	0.165	26	1.60	0.90
*4020-120MT	12±20%	0.175	26	1.50	0.88
*4020-150MT	15±20%	0.230	24	1.35	0.77
*4020-220MT	22±20%	0.350	15	1.05	0.62
*4020-270MT	27±20%	0.545	14	1.02	0.50
*4020-330MT	33±20%	0.550	11	0.85	0.49
*4020-390MT	39±20%	0.650	11	0.82	0.46
*4020-430MT	43±20%	0.660	10	0.77	0.45
*4020-470MT	47±20%	0.710	10	0.74	0.44
*4020-510MT	51±20%	0.750	10	0.70	0.42
*4020-560MT	56±20%	0.800	10	0.66	0.41
*4020-620MT	62±20%	0.900	9.6	0.65	0.39
*4020-680MT	68±20%	1.06	7.7	0.61	0.36
*4020-750MT	75±20%	1.12	7.7	0.60	0.35
*4020-820MT	82±20%	1.17	7.2	0.56	0.34
*4020-101MT	100±20%	1.35	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;

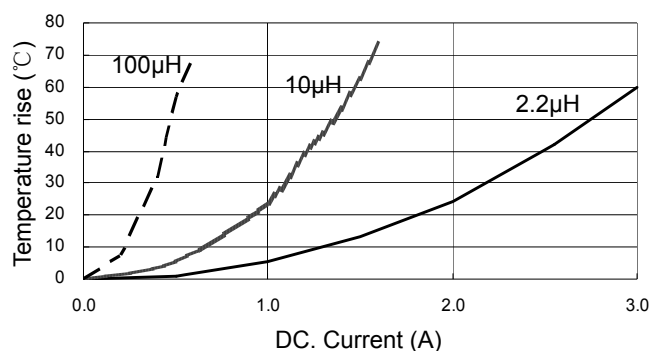
※*3. Isat: DC current at which the inductance drops approximate 30% from its value without current;

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

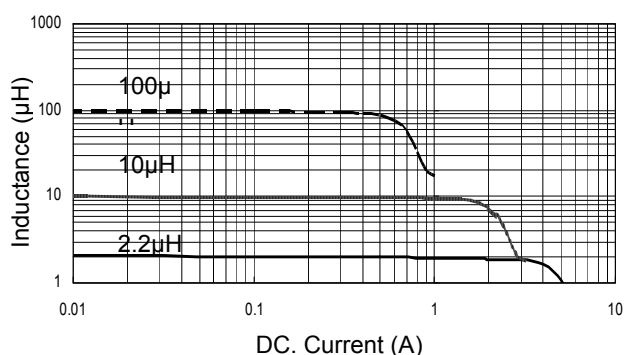
电气特性

TYPICAL ELECTRICAL CHARACTERISTICS

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



Weight: 125mg

Tape and reel: 3000/13" reel, 12 mm tape width

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