

绕线贴片功率电感—ALWPE3010- 系列

Wire Wound SMD Power Inductors—ALWPE3010- 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
- 新一代多功能手机(手机电视、数码相机等)
- 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

ALWPE

3010

—

□□□

□

I

①

②

③

④

⑤

⑥

①	分类 Type
ALWPE	Wire wound SMD power inductor

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]
3010	3.0X1.0

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

③	特性类型 Feature type
—	标准型 Standard

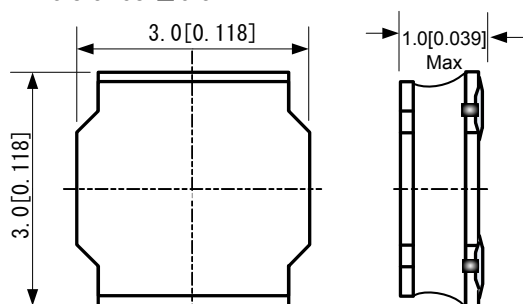
⑥	包装 Packing
T	编带 Tape Carrier Package

外观尺寸

SHAPE AND DIMENSIONS

Unit: mm

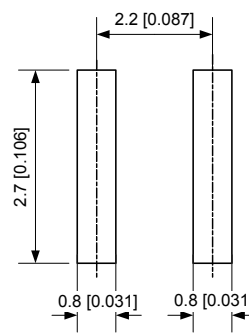
Tolerance: ±0.3



Weight: 34mg

Tape and reel: 2000/7" reel, 8 mm tape width

Recommended Land Pattern



ALWPE3010- Series

Part Number 型号	Inductance 电感量 @100KHz,1V	DC Resistance 直流电阻 (±30%)	Min. Self-resonant Frequency 自谐振频率	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
ALWPE3010-1R0	1.0	0.064	180	1.40	1.45
*3010-1R5	1.5	0.078	120	1.27	1.30
*3010-2R2	2.2	0.111	100	1.15	1.09
*3010-2R7	2.7	0.127	90	1.00	1.02
*3010-3R3	3.3	0.144	74	0.97	0.96
*3010-3R6	3.6	0.163	67	0.95	0.90
*3010-4R7	4.7	0.223	59	0.75	0.77
*3010-6R8	6.8	0.305	42	0.55	0.66
*3010-100	10	0.400	39	0.55	0.58
*3010-120	12	0.502	36	0.43	0.52
*3010-150	15	0.611	30	0.42	0.47
*3010-180	18	0.681	29	0.40	0.44
*3010-220	22	0.931	28	0.35	0.38
*3010-270	27	1.076	25	0.30	0.35
*3010-330	33	1.281	18	0.29	0.32
*3010-390	39	1.747	18	0.28	0.28
*3010-430	43	1.801	18	0.22	0.27
*3010-470	47	1.954	18	0.21	0.26

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

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

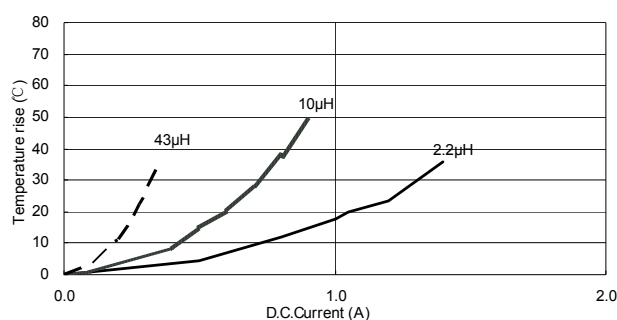
3. Isat: DC current at which the inductance drops approximate 30% from its value without current;

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

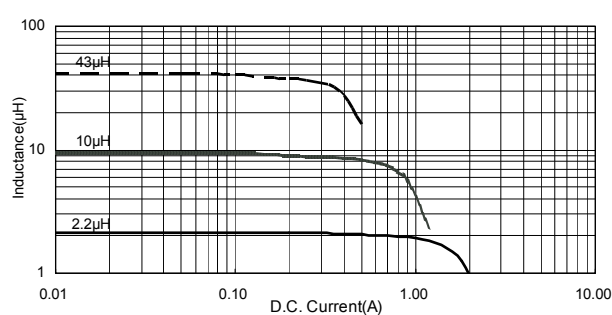
电气特性

TYPICAL ELECTRICAL CHARACTERISTICS

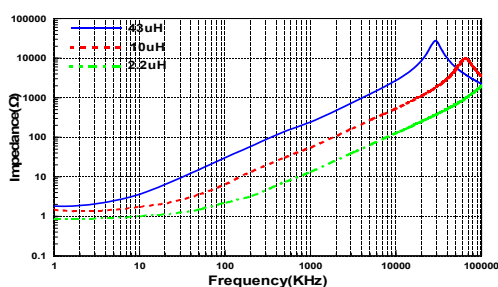
Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



Impedance vs. Frequency Characteristics



Inductance vs. Frequency Characteristics

