Wire Wound SMD Power Inductors—SWPA3010S Series

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

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

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

PRODUCT IDENTIFICATION

SWPA	3010	S	□□□	□	T
①	②	③	④	⑤	⑥

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

②	External Dimensions(L×H) [mm]
3010	3.0X1.0

③	Feature type
S	Standard

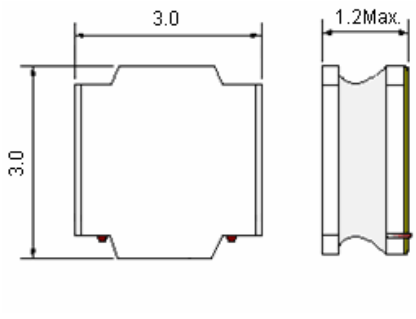
④	Nominal Inductance
Example	Nominal Value
1R0	1μH
100	10μH

⑤	Inductance Tolerance
N	±30%
M	±20%

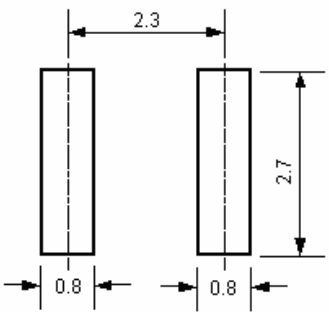
⑥	Packing
T	Tape Carrier Package

SHAPE AND DIMENSIONS

Unit: mm Tolerance:±0.3



Recommended Land Pattern



Weight: 34mg

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

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SPECIFICATIONS

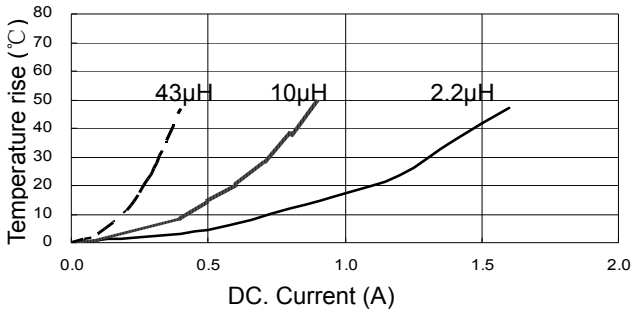
SWPA3010S Series

Part Number	Inductance @100KHz,1V	DC Resistance (±30%)	Min. Self-resonant Frequency	Max. Saturation Current	Max. Heat Rating Current
Units	μH	Ω	MHz	A	A
Symbol	L	DCR	SRF	Isat	Irms
SWPA3010S1R0NT	1.0±30%	0.065	180	1.40	1.45
SWPA3010S1R5NT	1.5±30%	0.080	120	1.27	1.30
SWPA3010S2R2NT	2.2±30%	0.110	100	1.15	1.09
SWPA3010S2R7NT	2.7±30%	0.130	90	1.00	1.02
SWPA3010S3R3NT	3.3±30%	0.145	74	0.97	0.96
SWPA3010S4R7MT	4.7±20%	0.225	59	0.75	0.77
SWPA3010S6R8MT	6.8±20%	0.305	42	0.55	0.66
SWPA3010S100MT	10±20%	0.400	39	0.55	0.58
SWPA3010S120MT	12±20%	0.505	36	0.43	0.52
SWPA3010S150MT	15±20%	0.610	30	0.42	0.47
SWPA3010S180MT	18±20%	0.680	29	0.40	0.44
SWPA3010S220MT	22±20%	0.930	28	0.35	0.38
SWPA3010S270MT	27±20%	1.08	25	0.30	0.35
SWPA3010S330MT	33±20%	1.55	18	0.29	0.30
SWPA3010S390MT	39±20%	1.75	18	0.28	0.28
SWPA3010S470MT	47±20%	1.95	18	0.22	0.26
SWPA3010S560MT	56±20%	2.32	18	0.21	0.24
SWPA3010S620MT	62±20%	2.45	16	0.20	0.23

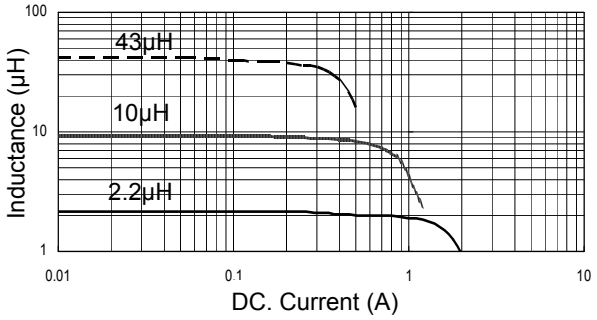
※1. All test data is referenced to 20°C ambient;
※2. Rated current: Isat or Irms, whichever is smaller;
※*3. Isat: DC current at which the inductance drops approximate 30% from its value without current;
※*4. Irms: DC current that causes the temperature rise (△T =40°C) from 20°C ambient.

TYPICAL ELECTRICAL CHARACTERISTICS

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



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