



## SMD Power Inductors-SPHN-T Series

### Features

High saturation current realized by material properties and structure design

Low DC resistance to achieve high conversion efficiency and lower temperature rising □

Low Profile: Thickness in 1.2 mm.

Magnetically shielded structure to accomplish high resolution in EMC protection.

Halogen free, Lead Free, RoHS Compliance.



### Applications

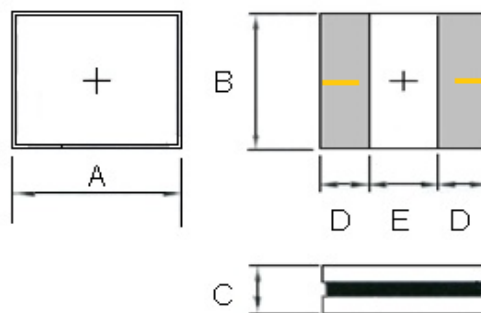
SPHN series is generic applied in portable DC to DC converter line.

Smart phone, PAD

Thin-type power supply module,

DC/DC converter

### Dimensions (mm)



### Product Identification

SPHN 252012 T- 1R0 □

SPHN: SERIES NAME

252012: DIMENSION Size Code

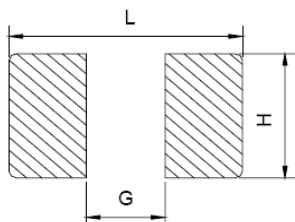
T: Material Code

1R0: INDUCTANCE CODE.

□: TOLERANCE, M=20%. N=30%.

SERIES	A	B	C	D	E
252012T	2.5±0.3	2.0±0.35	1.3Max	0.85REF	0.8REF

### RECOMMENDER P.C.B LAYOUT



SERIES	L	G	H
252012T	2.8	1.2	2.0



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### Electrical Characteristics

Part Number	Inductance	DC Resistance	Isat(A)		Irms(A)	
	(uH)	(Ω) Max	Typical	Max	Typical	Max
SPHN252012T-R33□	0.33	0.032	6.80	6.50	4.70	4.30
SPHN252012T-R47□	0.47	0.035	6.30	6.00	4.30	4.00
SPHN252012T-1R0□	1.0	0.055	4.80	4.50	3.50	3.20
SPHN252012T-1R5□	1.5	0.072	4.10	3.80	2.70	2.40
SPHN252012A-2R2□	2.2	0.108	3.30	3.10	2.40	2.30
SPHN252012A-3R3□	3.3	0.165	2.60	2.40	2.20	2.00
SPHN252012A-4R7□	4.7	0.300	2.20	2.10	2.00	1.90
SPHN252012A-100□	10.0	0.550	1.40	1.30	1.10	1.00

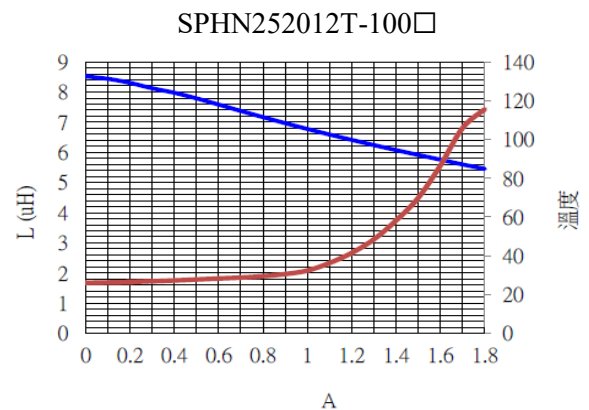
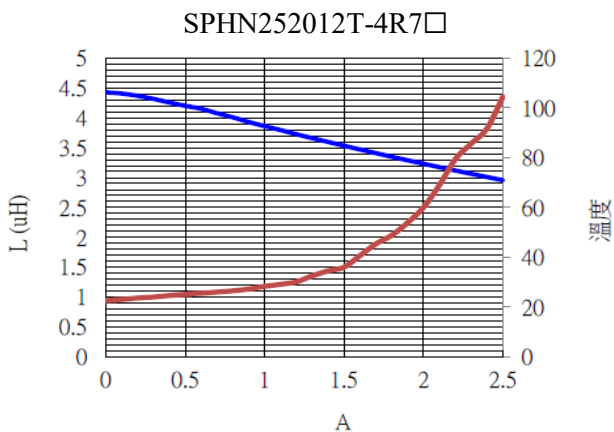
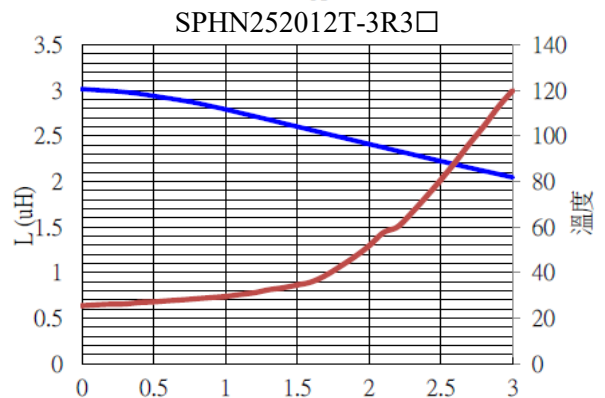
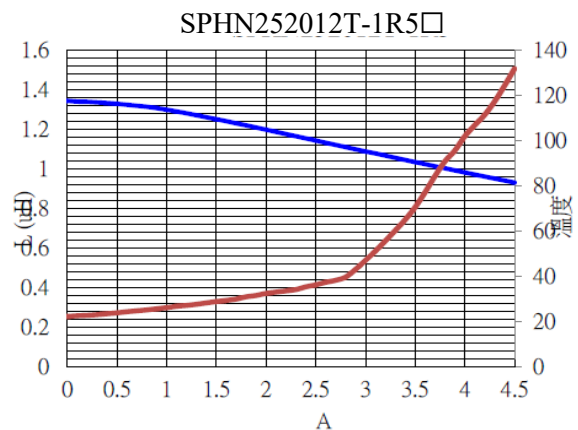
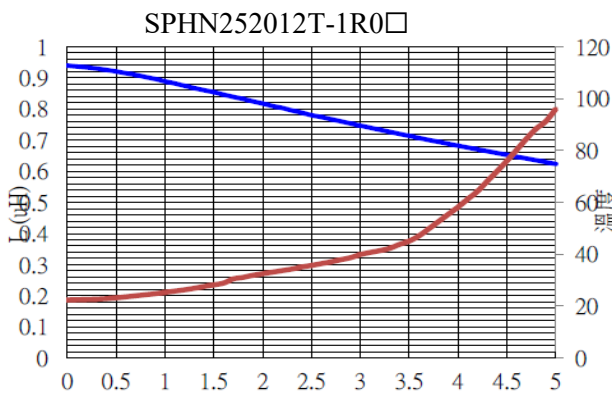
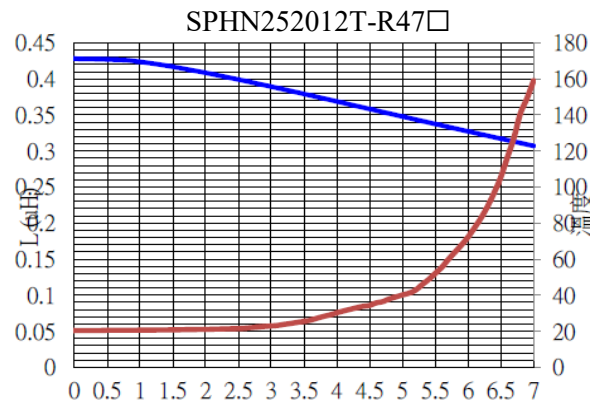
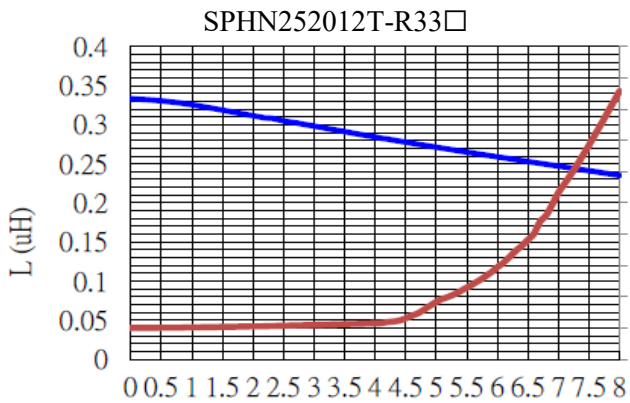
#### Note

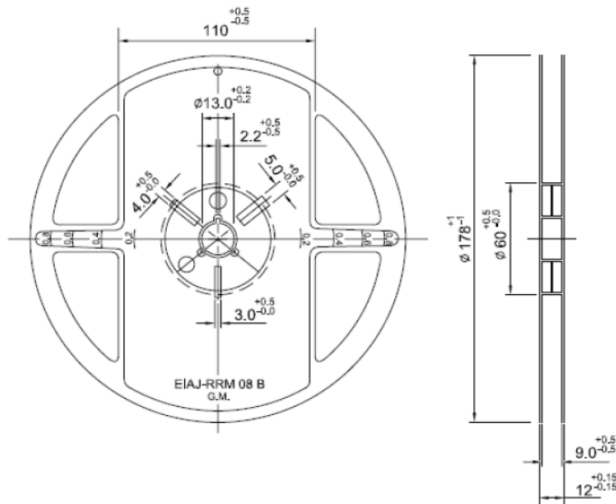
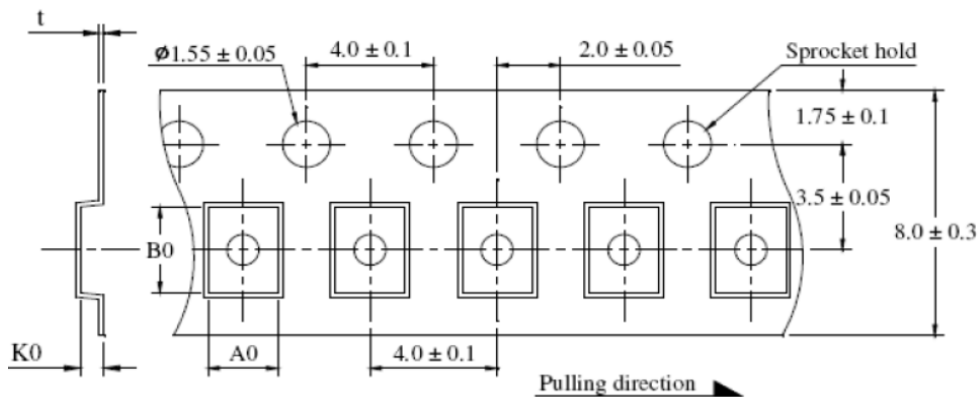
- Isat for Inductance drop 30% from its value without current typical.
- Irms for a 40°C rise above 25°C ambient typical.
- If Use wave soldering is there will be some risk.(Crack、unwitting& Mark Shedding)
- Re-flow soldering temperatures below 240 degrees, there will be unwitting risk.
- Operating Temperature Range -40°C to +125°C (Including self-temperature rise)
- Storage temp. and humidity : -40 to +85°C , 70%RH max
- When total area of exposed wire occurring to each sides is not greater than 75% of coating resin area, that is acceptable.



### SMD Power Inductors-SPHN-T Series

#### Current Characteristic




**SMD Power Inductors-SPHN-T Series**
**PACKAGING**
**REEL Dimensions (mm)**

**Tape Dimensions (mm)**

**TAPE DIMENSIONS AND PACKAGING QUANTITIES**

TYPE	A0	B0	K0	t	Pcs/ Reel	Reels/Box
252012	$2.40 \pm 0.1$	$2.85 \pm 0.1$	$1.35 \pm 0.1$	$0.25 \pm 0.05$	2000	5 reels

**Taping Package Storage Condition**

Storage Temperature : 5 to 40 °C

Relative Humidity: &lt; 70%RH

Storage Time : 12 months max