

PHP2016 SERIES

Part No.	L (uH) +20%	PHP201610P					PHP201612P				
		DCR (mΩ)		I sat (A)		I rms (A)	DCR (mΩ)		I sat (A)		I rms (A)
		max.	Typ.	max.	Typ.	max.	max.	Typ.	max.	Typ.	max.
R47	0.47	32	5.4	4.8	4.4	4.0	26	5.8	5.1	4.5	4.2
1R0	1.0	65	3.8	3.6	3.2	2.8	48	4.0	3.5	3.2	2.8
1R5	1.5	91	3.0	2.6	2.1	1.8	72	3.2	2.8	2.5	2.2
2R2	2.2	140	2.8	2.4	1.9	1.6	116	2.8	2.4	1.9	1.6
3R3	3.3	235	2.1	1.8	1.5	1.3	210	2.2	1.9	1.4	1.2

PHP2520 SERIES

Part No.	L (uH) +20%	PHP252010P					PHP252012P				
		DCR (mΩ)		I sat (A)		I rms (A)	DCR (mΩ)		I sat (A)		I rms (A)
		max.	Typ.	max.	Typ.	max.	max.	Typ.	max.	Typ.	max.
R24	0.24	-	-	-	-	-	15	9.0	8.0	7.2	6.8
R47	0.47	27	6.5	5.6	5.2	4.6	22	7.8	7.0	5.0	4.6
1R0	1.0	48	4.7	4.3	4.2	4.0	40	5.5	4.7	4.2	3.8
1R5	1.5	72	3.5	3.0	2.9	2.5	58	4.2	3.6	3.3	3.0
2R2	2.2	97	3.1	2.6	2.3	2.1	82	3.4	3.0	2.9	2.6
3R3	3.3	168	2.5	2.1	1.8	1.6	135	2.8	2.3	2.0	1.6
4R7	4.7	240	2.2	1.8	1.6	1.4	180	2.0	1.8	1.5	1.2

PHP3225 SERIES

Part No.	L (uH) +20%	PHP322512					PHP322520				
		DCR (mΩ)		I sat (A)		I rms (A)	DCR (mΩ)		I sat (A)		I rms (A)
		max.	Typ.	max.	Typ.	max.	max.	Typ.	max.	Typ.	max.
R47	0.47	22	9.0	8.0	5.8	5.2	-	-	-	-	-
1R0	1.0	42	6.3	5.8	4.2	3.8	24	7.6	6.5	4.5	4.0
1R5	1.5	48	4.8	4.2	3.7	3.2	35	6.0	5.2	3.5	3.1
2R2	2.2	66	4.0	3.6	2.9	2.6	40	4.6	4.0	3.0	2.6
3R3	3.3	108	3.0	2.6	2.2	2.0	65	4.2	3.6	2.4	2.1
4R7	4.7	157	2.8	2.4	1.9	1.6	98	3.4	2.9	2.2	1.9
6R8	6.8	276	2.2	1.9	1.5	1.2	-	-	-	-	-

If you require another part number please contact with us.

Note 1: Referenced ambient temperature 20°C.

Note 2: Test Condition :1MHz ,1.0 Vrms.

Note 3: I sat(Typ) : DC current (A) that will cause L0 to drop approximately 30%

I sat(Max) : DC current (A) that will cause L0 to drop 30% Max

I rms (Typ): DC current (A) that will cause an approximate ΔT of 40°C

I rms (Max): DC current (A) that will cause an ΔT of 40°C Max

Note 4: Operating Temperature : -55°C to 125°C

Note 5: Operating temperature range includes self-temperature rise.

Note 6: The rated current as listed is either the saturation current or the heating current depending on which value is lower.

Web : <http://www.3lcoil.com>

LHP2016 SERIES

Part No.	L (uH) +20%	LHP201610P					LHP201612P				
		DCR (mΩ)		I sat (A)		I rms (A)	DCR (mΩ)		I sat (A)		I rms (A)
		max.	Typ.	max.	Typ.	max.	max.	Typ.	max.	Typ.	max.
R24	0.24	19	7.5	6.5	6.5	5.5	-	-	-	-	-
R47	0.47	31	5.4	4.8	4.5	4.1	28	5.8	5.1	4.5	4.2
1R0	1.0	65	4.0	3.6	3.2	2.6	48	4.0	3.3	3.2	2.8
2R2	2.2	-	-	-	-	-	110	2.6	2.2	1.9	1.6

LHP2520 SERIES

Part No.	L (uH) +20%	LHP252010P					LHP252012P				
		DCR (mΩ)		I sat (A)		I rms (A)	DCR (mΩ)		I sat (A)		I rms (A)
		max.	Typ.	max.	Typ.	max.	max.	Typ.	max.	Typ.	max.
R47	0.47	-	-	-	-	-	22	7.8	7.0	5.0	4.6
1R5	1.5	68	3.5	3.0	2.9	2.5	58	4.2	3.6	3.3	3.0
2R2	2.2	97	3.1	2.6	2.3	2.1	82	3.4	3.0	2.9	2.6
3R3	3.3	168	2.5	2.1	1.8	1.6	140	2.8	2.3	2.0	1.6

LHP3225 SERIES

Part No.	L (uH) +20%	LHP322512					LHP322520				
		DCR (mΩ)		I sat (A)		I rms (A)	DCR (mΩ)		I sat (A)		I rms (A)
		max.	Typ.	max.	Typ.	max.	max.	Typ.	max.	Typ.	max.
R47	0.47	22	9.0	8.0	5.8	5.2	-	-	-	-	-
1R0	1.0	42	6.3	5.8	4.2	3.8	24	7.6	6.5	4.5	4.0
2R2	2.2	-	-	-	-	-	40	4.6	4.0	3.0	2.6
4R7	4.7	157	2.8	2.4	1.9	1.6	-	-	-	-	-
6R8	6.8	276	2.2	1.9	1.5	1.2	-	-	-	-	-

Taiwan Sales Offices:

3L Electronic Corp. (Taiwan H.Q.)

☑ : 3F, No. 192, Sec. 2, Zhongxing Rd., Xindian Dist., New Taipei City, 231037 Taiwan (R.O.C.)

Domestic (Taipei): ☎ : +886 (2) 86659999 EXT:888 | 📠 : +886 (2) 86659900 | E-mail: joker@3lcoil.com | Area Manager: Mr. Vincent Wu

Overseas: ☎ : +886 (2) 86659999 EXT:231 | 📠 : +886 (2) 86659347 | E-mail: fiona@3lcoil.com | Area Manager: Ms. Fiona Chen

PS: Please contact with Fiona Chen for any concern/ RFQ from overseas.

China Sales Offices:

Zhong Shan Sanle Electronic Ltd.

☑ : Six Industrial Area, Nanlang Zhen, Zhong Shan City, Guangdong Prov., China. P.C. : 528451

☎ : +86 (760) 86628100 | 📠 : +86 (760) 86628111 | E-mail: lily@3lcoil.com | Area Manager: Ms. Lily Chen

3L Electronic Ltd. (Suzhou Branch)

☑ : 215000, Room 2213-2214, Building 8, Shishan Street Life Plaza, Suzhou, Jiangsu Province

☎ : +86 (512) 68271292 | E-mail: byronlee@3lcoil.com | Area Manager: Mr. Byron Lee

3L Electronic International Trading Limited (Shenzhen Branch)

☑ : 815, building 4, COFCO Chuangxin R & D center, Xin'an street, Bao'an District, Shenzhen City, Guangdong Province. ZIP: 518100

☎ : +86 (755) 29272893 | E-mail: zhangjun@3lcoil.com | Area Manager: Mr. Kevin Zhang

3L Electronic (Wuhan) Co., Ltd.

☑ : Room 1508, Building 1(Central living area of Wangjiawan), No.697, Hanyang road, Hanyang District, Wuhan Province

☎ : +86 (188) 02590808 | E-mail: wuxiaohui@3lcoil.com | Area Manager: Mr. Kevin Wu

3L Electronic (Dongguan) Co., Ltd.

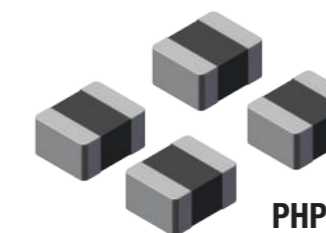
☑ : No. 201-03 R&D Building 1 Lihezijing High Teck Park Qinghudong Road No.55 QingXi Town Dongguan City, Guangdong Prov., China. P.C. : 523660

☎ : +86 (769) 86816785 | 📠 : +86 (769) 86816786 | E-mail: xianhe@3lcoil.com | Area Manager: Mr. Steven

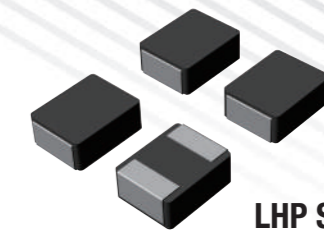


MINI MOLDING POWER INDUCTOR

WEB: WWW.3LCOIL.COM



PHP SERIES



LHP SERIES



New

Products Brochure

PHP & LHP Series

Mini Molding Power Inductor

DESIGN CONCEPT:

In order to cope with the development trend of mobility and battery life for handheld devices, 3L integrated proprietary materials, thin film coil, flat wire α winding, and an unique design to create a high-performance power inductors with small, high power rating, low loss and low DCR. It is particularly suited to high-performance power generation which requires high switching frequency and multi-core processor smart phone.

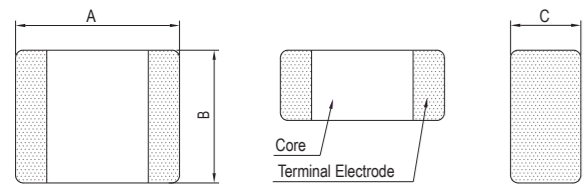
PRODUCT IDENTIFICATION:

PHP 201610P - 1R0 M

(1) (2) (3) (4)

- (1) Series : Paste termination structure
Hot Press power inductors.
- (2) Dimensions : **201610P** is size.
- (3) Inductance: **1R0** for 1.0uH
- (4) Inductance tolerance: **M**: $\pm 20\%$

SHAPE AND DIMENSIONS:



unit: mm

Item	A	B	C
PHP201610P	2.0±0.3	1.6±0.3	0.8±0.2
PHP201612P	2.0±0.3	1.6±0.3	1.0±0.2
PHP252010P	2.5±0.3	2.0±0.3	0.8±0.2
PHP252012P	2.5±0.3	2.0±0.3	1.0±0.2
PHP322512	3.2±0.3	2.5±0.3	1.0±0.2
PHP322520	3.2±0.3	2.5±0.3	1.8±0.2

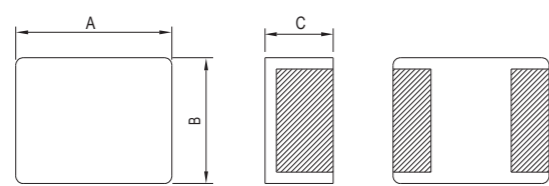
PRODUCT IDENTIFICATION:

LHP 322512 - 1R0 M

(1) (2) (3) (4)

- (1) Series : L-shaped Plating Terminal
Hot Press power Inductor
- (2) Dimensions : **322512** is size.
- (3) Inductance: **1R0** for 1.0uH.
- (4) Inductance tolerance: **M**: $\pm 20\%$

SHAPE AND DIMENSIONS:



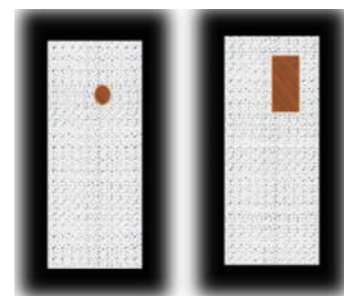
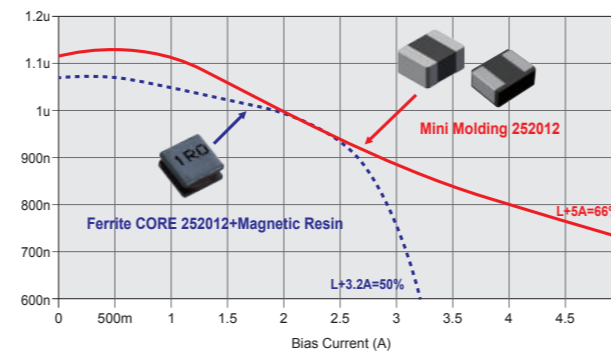
unit: mm

Item	A	B	C
LHP201610P	2.0±0.2	1.6±0.2	0.8±0.2
LHP201612P	2.0±0.2	1.6±0.2	1.0±0.2
LHP252010P	2.5±0.2	2.0±0.2	0.8±0.2
LHP252012P	2.5±0.2	2.0±0.2	1.0±0.2
LHP322512	3.2±0.2	2.5±0.2	1.0±0.2
LHP322520	3.2±0.2	2.5±0.2	1.8±0.2

1.2mm & 1.0mm Low Profile / Magnetic Shielded / Low Loss & Low DCR / High Current / High Power Inductor



High BS alloy iron, Isat higher than the same size of the ferrite inductors



others 3L

Excellent terminal and plating

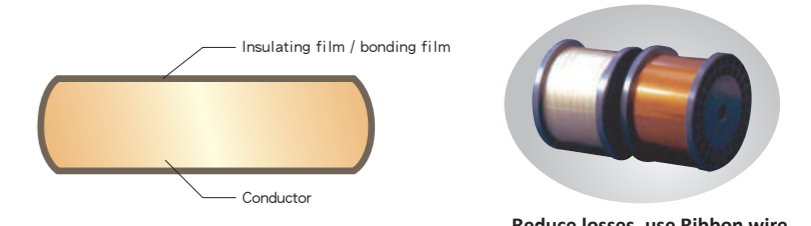
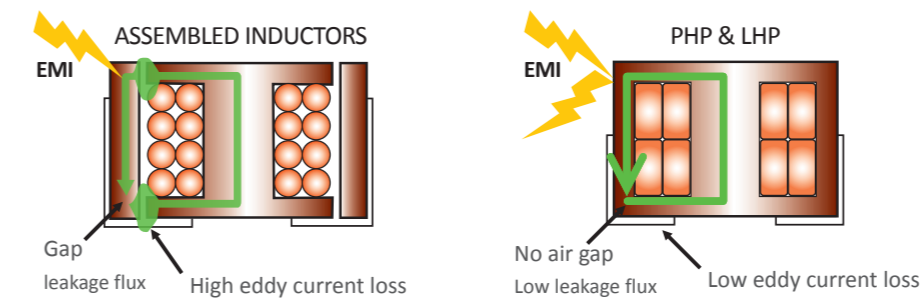
Using flat wire, the cross-section is larger than round wire, which has better conductivity.



PHP

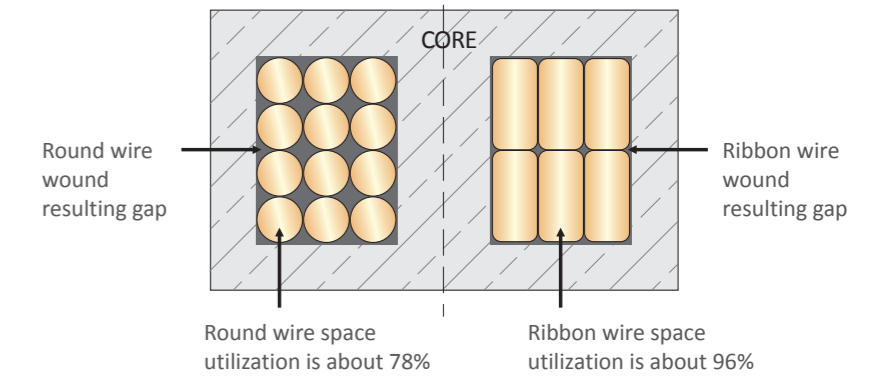
PHP adopts the electroplating process after dipping with silver, the terminal strength is excellent, and the production cost is slightly higher than that of LHP.

Molding process, no air gap, excellent EMI, low eddy current loss

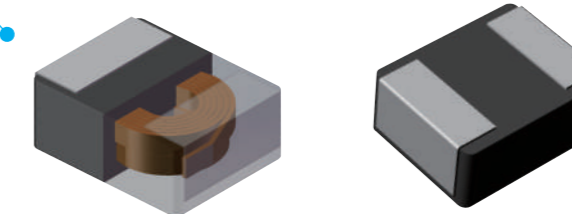
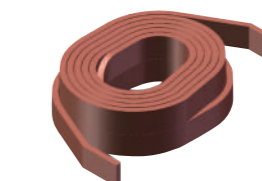


Reduce losses, use Ribbon wire

High Space utilization creates high Irms & low DCR.



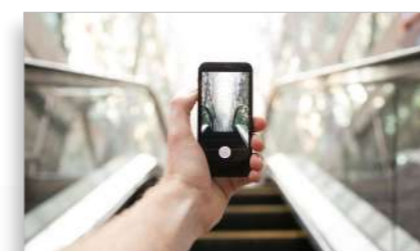
α winding performs high reliability
 α winding can avoid crossing line, which effectively reduce the risk of short circuit.



LHP

LHP adopts electroplating process, the terminal strength is lower than PHP which leads the most competitive price.

APPLICATIONS:



Smart Phone



Tablet



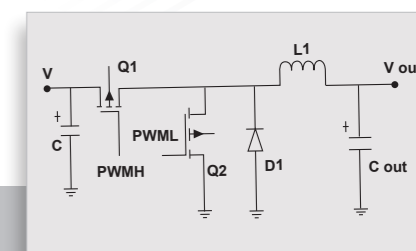
Notebook



SSD



Wearables



DC/DC converter