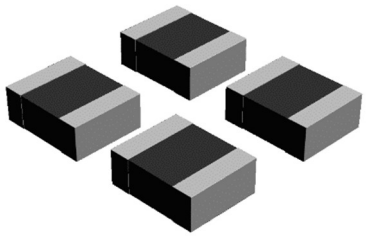
PHP Series INDEX

PHP 2016 SERIES

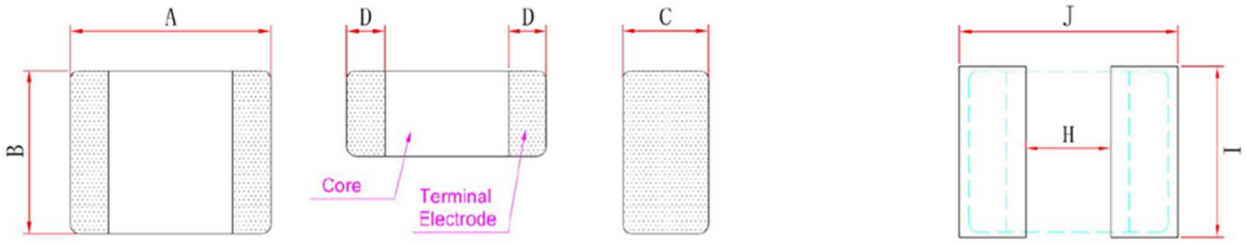
HIGH POWER INDUCTOR



Applications:

- DC/DC converter for CPU in Notebook PC
- Cellular phones, LCD displays, HDDs, DVCs, PDAs etc..
- Thin type on-board power supply module for exchanger
- VRM for server

Shape and Dimensions (Dimensions are in mm)



Item	A	B	C	D	H	I	J
PHP201610P	2.0±0.3	1.6±0.3	0.8±0.2	0.5±0.3	0.7	1.8	2.3
PHP201612P	2.0±0.3	1.6±0.3	1.0±0.2	0.5±0.3	0.7	1.8	2.3

Features :

- High performance (Isat) realized by metal dust core.
- Low profile: 2.0mm x 1.6mm x 1.0mm
  2.0mm x 1.6mm x 1.2mm
- Low loss realized with low DCR
- Magnetically Shielded.
- Compliance with RoHS and Halogen Free

Product Identification:

PHP 201610P – 1R0 M

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

(1) Product Symbol

(2) Dimensions :**201610** is size.

(3) Inductance: **1R0** for 1.0uH.

(4) Inductance tolerance: **M**: ± 20%

Characteristics:

- Saturation Current (Isat) : The current will cause L_0 to drop approximately 30% typical
- Temperature Rise Current (Irms) : The current will cause the coil temperature rise approximately △T=40℃
- Operating Temperature : -55℃ to 125℃

Measurement equipment :

- L: Agilent E4980 Precision LCR Meter (Upgraded version of Agilent HP4284A) with HP42841A Current Source
- DCR: Chroma16502 Milli-ohm meter.

● PHP201610P Series

Part No.	Inductance L(uH)	Tolerance (±%)	DCR(mΩ)		Isat(A)		Irms(A)	
			Typ.	Max.	Typ.	Max.	Typ.	Max.
PHP201610P-R47M	0.47	20	25	32	5.4	4.8	4.4	4.0
PHP201610P-1R0M	1.0	20	54	65	3.8	3.6	3.2	2.8
PHP201610P-1R5M	1.5	20	84	91	3.0	2.6	2.1	1.8
PHP201610P-2R2M	2.2	20	125	140	2.8	2.4	1.9	1.6
PHP201610P-3R3M	3.3	20	205	235	2.1	1.8	1.5	1.3

If you require another part number please contact with us.

Note 1: Referenced ambient temperature 25℃.

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

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

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

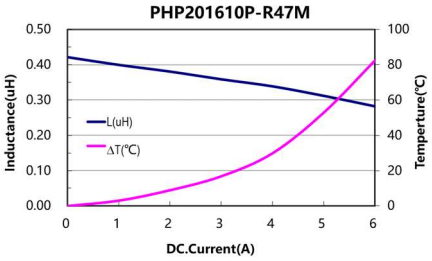
Irms (Typ) : DC current（A）that will cause an approximate ΔT of 40℃

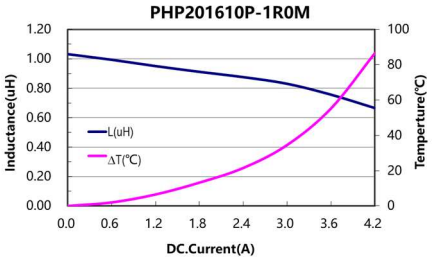
Irms (Max) : DC current（A）that will cause an ΔT of 40℃ Max

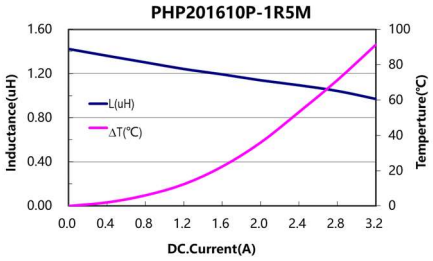
Note 4: Operating temperature range includes self-temperature rise.

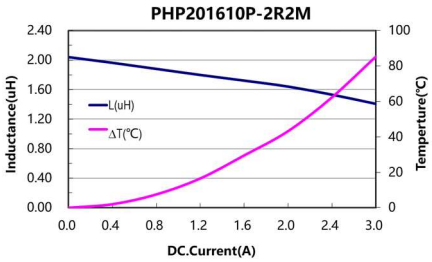
Note 5: The rated current as listed is either the saturation current or the heating current depending on which value is lower.

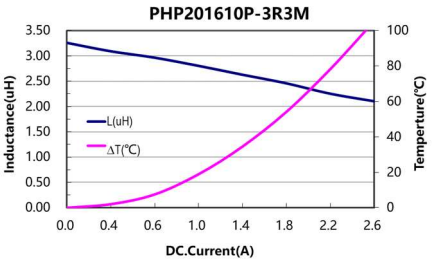
Typical performance curves :











● PHP201612P Series

Part No.	Inductance L(uH)	Tolerance (±%)	DCR(mΩ)		Isat(A)		Irms(A)	
			Typ.	Max.	Typ.	Max.	Typ.	Max.
PHP201612P-R47M	0.47	20	22	26	5.8	5.1	4.5	4.2
PHP201612P-1R0M	1.0	20	41	48	4.0	3.5	3.2	2.8
PHP201612P-1R5M	1.5	20	63	72	3.2	2.8	2.5	2.2
PHP201612P-2R2M	2.2	20	95	116	2.8	2.4	1.9	1.6
PHP201612P-3R3M	3.3	20	175	210	2.2	1.9	1.4	1.2

If you require another part number please contact with us.

Note 1: Referenced ambient temperature 25℃.

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

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

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

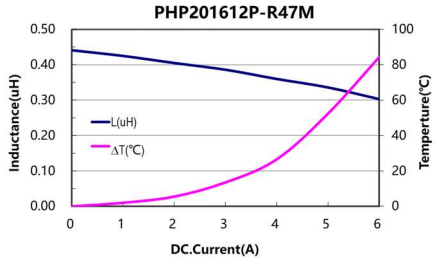
Irms (Typ) : DC current（A）that will cause an approximate ΔT of 40℃

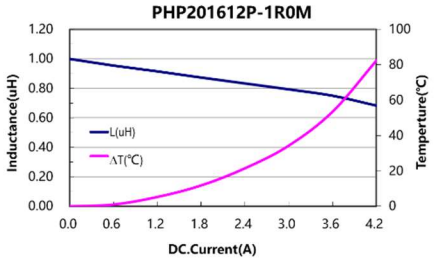
Irms (Max) : DC current（A）that will cause an ΔT of 40℃ Max

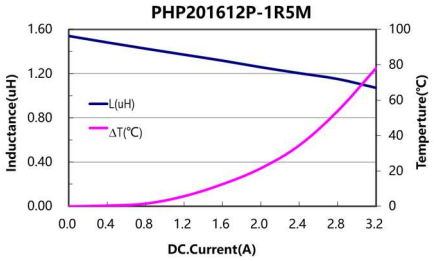
Note 4: Operating temperature range includes self-temperature rise.

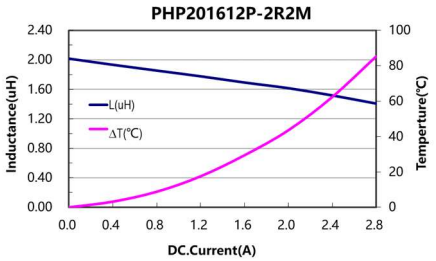
Note 5: The rated current as listed is either the saturation current or the heating current depending on which value is lower.

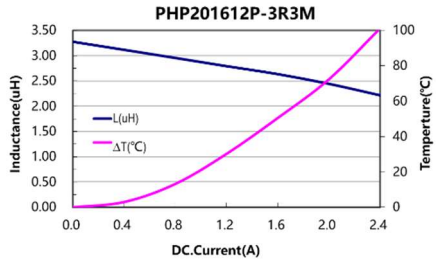
Typical performance curves :







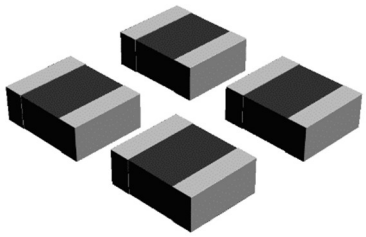




* Due to the limited space, the catalogue shows the typical specifications only. For more specific details (characteristics graph, reliability, and others), kindly invite you to access 3L official website www.3lcoil.com for better known.

PHP 2520 SERIES

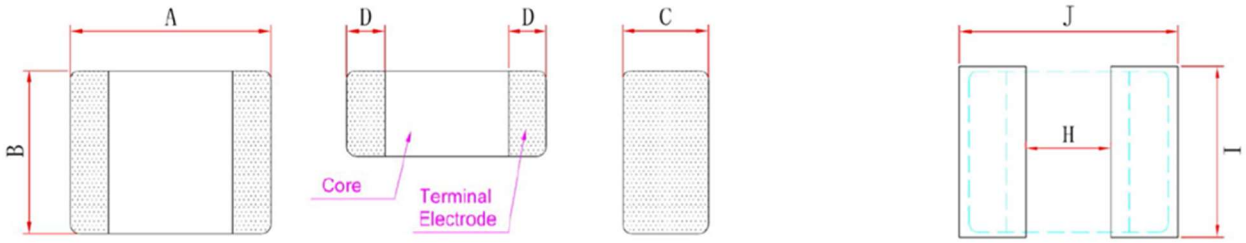
HIGH POWER INDUCTOR



Applications:

- DC/DC converter for CPU in Notebook PC
- Cellular phones, LCD displays, HDDs, DVCs, PDAs etc..
- Thin type on-board power supply module for exchanger
- VRM for server

Shape and Dimensions (Dimensions are in mm)



Item	A	B	C	D	H	I	J
PHP252010P	2.5±0.3	2.0±0.3	0.8±0.2	0.6±0.3	1.2	2.3	2.8
PHP252012P	2.5±0.3	2.0±0.3	1.0±0.2	0.6±0.3	1.2	2.3	2.8

Features :

- High performance (Isat) realized by metal dust core.
- Low profile: 2.5mm x 2.0mm x 1.0mm
  2.5mm x 2.0mm x 1.2mm
- Low loss realized with low DCR
- Magnetically Shielded.
- Compliance with RoHS and Halogen Free

Product Identification:

PHP 252010P – 1R0 M

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

(1) Product Symbol

(2) Dimensions :**252010** is size.

(3) Inductance: **1R0** for 1.0uH.

(4) Inductance tolerance: **M**: ± 20%

Characteristics:

- Saturation Current (Isat) : The current will cause L_0 to drop approximately 30% typical
- Temperature Rise Current (Irms) : The current will cause the coil temperature rise approximately △T=40℃
- Operating Temperature : -55℃ to 125℃

Measurement equipment :

- L: Agilent E4980 Precision LCR Meter (Upgraded version of Agilent HP4284A) with HP42841A Current Source
- DCR: Chroma16502 Milli-ohm meter.

● PHP252010P Series

Part No.	Inductance L(uH)	Tolerance (±%)	DCR(mΩ)		Isat(A)		Irms(A)	
			Typ.	Max.	Typ.	Max.	Typ.	Max.
PHP252010P-R47M	0.47	20	21	27	6.5	5.6	5.2	4.6
PHP252010P-1R0M	1.0	20	38	48	4.7	4.3	4.2	4.0
PHP252010P-1R5M	1.5	20	62	72	3.5	3.0	2.5	2.2
PHP252010P-2R2M	2.2	20	81	97	3.1	2.6	2.3	2.1
PHP252010P-3R3M	3.3	20	140	170	2.5	2.1	1.8	1.6
PHP252010P-4R7M	4.7	20	215	240	2.2	1.8	1.6	1.4

If you require another part number please contact with us.

Note 1: Referenced ambient temperature 25℃.

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

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

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

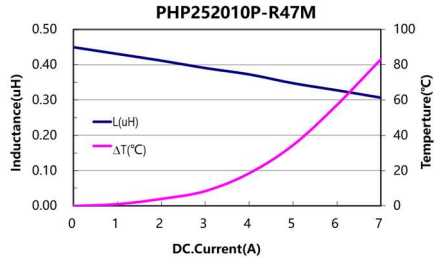
Irms (Typ) : DC current（A）that will cause an approximate ΔT of 40℃

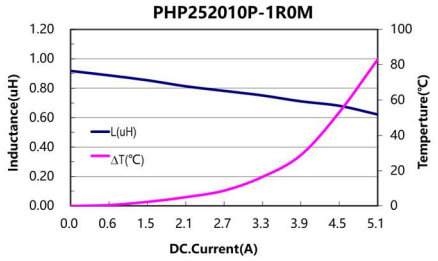
Irms (Max) : DC current（A）that will cause an ΔT of 40℃ Max

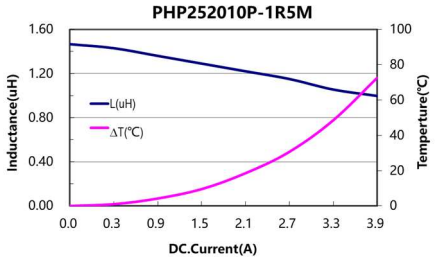
Note 4: Operating temperature range includes self-temperature rise.

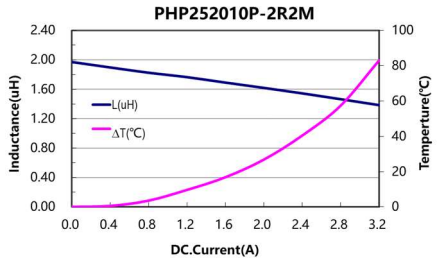
Note 5: The rated current as listed is either the saturation current or the heating current depending on which value is lower.

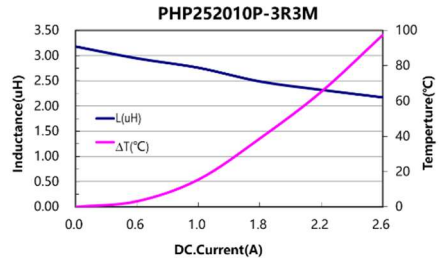
Typical performance curves :

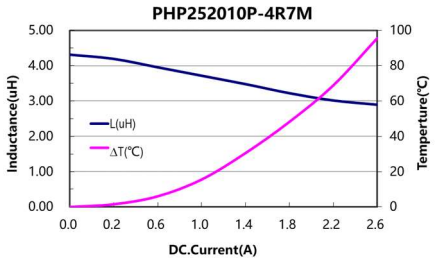












● PHP252012P Series

Part No.	Inductance L(uH)	Tolerance (±%)	DCR(mΩ)		Isat(A)		Irms(A)	
			Typ.	Max.	Typ.	Max.	Typ.	Max.
PHP252012P-R24M	0.24	20	11	15	9.0	8.0	7.2	6.8
PHP252012P-R47M	0.47	20	18	22	8.0	7.2	5.0	4.6
PHP252012P-1R0M	1.0	20	35	40	5.5	4.7	4.2	3.8
PHP252012P-1R5M	1.5	20	51	58	4.2	3.6	3.3	3.0
PHP252012P-2R2M	2.2	20	70	82	3.6	3.3	2.8	2.5
PHP252012P-3R3M	3.3	20	120	135	2.8	2.5	2.0	1.6
PHP252012P-4R7M	4.7	20	150	180	2.0	1.8	1.5	1.2

If you require another part number please contact with us.

Note 1: Referenced ambient temperature 25℃.

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

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

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

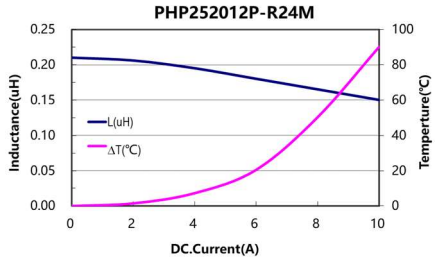
Irms (Typ) : DC current（A）that will cause an approximate ΔT of 40℃

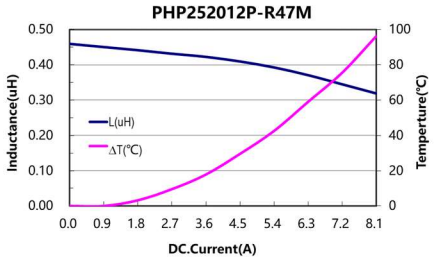
Irms (Max) : DC current（A）that will cause an ΔT of 40℃ Max

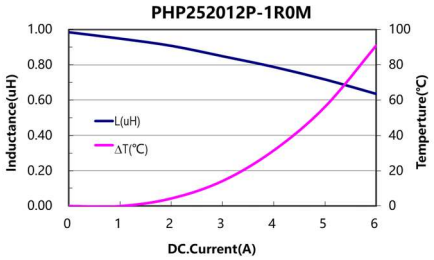
Note 4: Operating temperature range includes self-temperature rise.

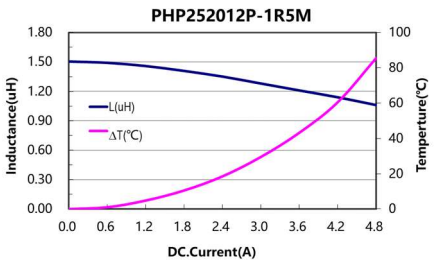
Note 5: The rated current as listed is either the saturation current or the heating current depending on which value is lower.

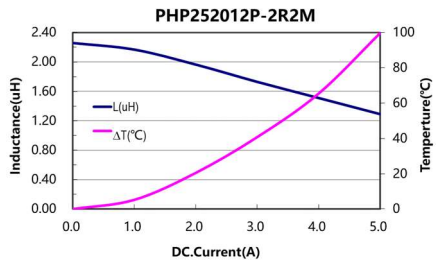
Typical performance curves :

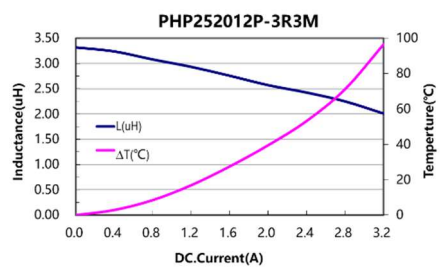


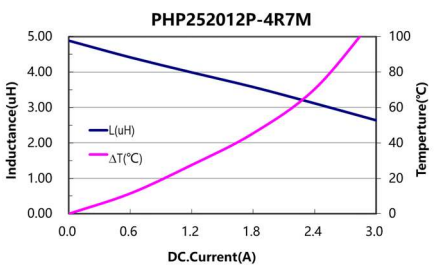












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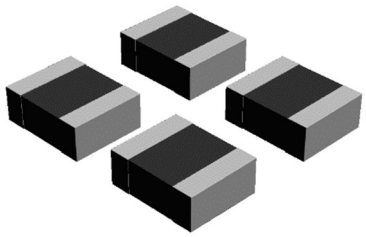
PHP 3225 SERIES

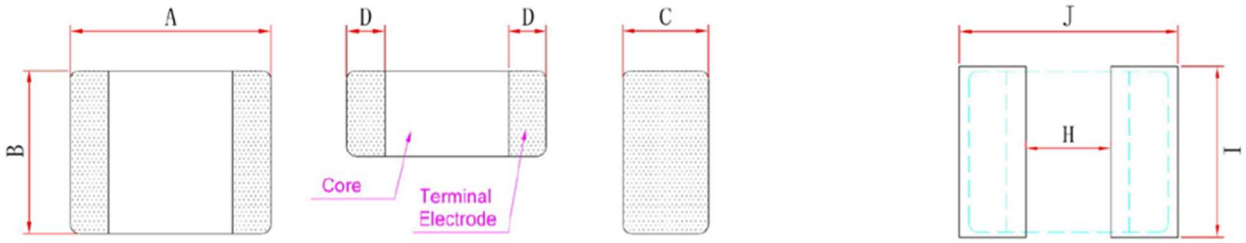
HIGH POWER INDUCTOR



Applications:

- DC/DC converter for CPU in Notebook PC
- Cellular phones, LCD displays, HDDs, DVCs, PDAs etc..
- Thin type on-board power supply module for exchanger
- VRM for server

Shape and Dimensions (Dimensions are in mm)



Item	A	B	C	D	H	I	J
PHP322512	3.2±0.3	2.5±0.3	1.0±0.2	0.6±0.3	1.7	2.8	3.5
PHP322520	3.2±0.3	2.5±0.3	1.8±0.2	0.6±0.3	1.7	2.8	3.5

Features :

- High performance (Isat) realized by metal dust core.
- Low profile: 3.2mm x 2.5mm x 1.2mm
  3.2mm x 2.5mm x 2.0mm
- Low loss realized with low DCR
- Magnetically Shielded.
- Compliance with RoHS and Halogen Free

Product Identification:

PHP 322512 – 1R0 M

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

(1) Product Symbol

(2) Dimensions :**322512** is size.

(3) Inductance: **1R0** for 1.0uH.

(4) Inductance tolerance: **M**: ± 20%

Characteristics:

- Saturation Current (Isat) : The current will cause L_0 to drop approximately 30% typical
- Temperature Rise Current (Irms) : The current will cause the coil temperature rise approximately △T=40℃
- Operating Temperature : -55℃ to 125℃

Measurement equipment :

- L: Agilent E4980 Precision LCR Meter (Upgraded version of Agilent HP4284A) with HP42841A Current Source
- DCR: Chroma16502 Milli-ohm meter.

● PHP322512 Series

Part No.	Inductance L(uH)	Tolerance (±%)	DCR(mΩ)		Isat(A)		Irms(A)	
			Typ.	Max.	Typ.	Max.	Typ.	Max.
PHP322512-R47M	0.47	20	17	22	6.8	6.2	5.2	4.8
PHP322512-1R0M	1.0	20	36	42	6.0	5.5	4.5	4.1
PHP322512-1R5M	1.5	20	40	48	4.8	4.2	3.7	3.2
PHP322512-2R2M	2.2	20	58	66	4.0	3.6	2.9	2.6
PHP322512-3R3M	3.3	20	96	108	3.0	2.6	2.2	2.0
PHP322512-4R7M	4.7	20	140	157	2.8	2.4	1.9	1.6
PHP322512-6R8M	6.8	20	220	276	2.2	1.9	1.5	1.2

If you require another part number please contact with us.

Note 1: Referenced ambient temperature 25℃.

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

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

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

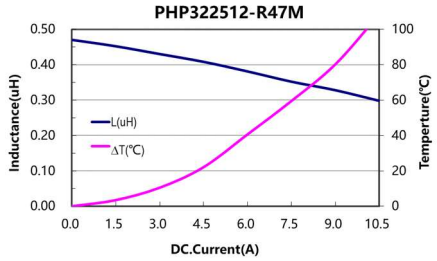
Irms (Typ) : DC current（A）that will cause an approximate ΔT of 40℃

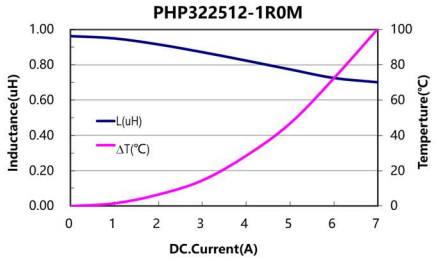
Irms (Max) : DC current（A）that will cause an ΔT of 40℃ Max

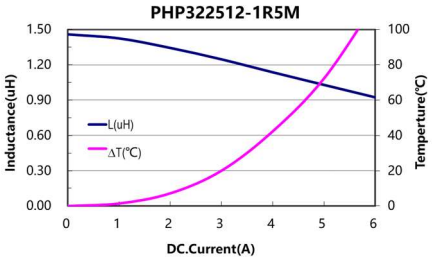
Note 4: Operating temperature range includes self-temperature rise.

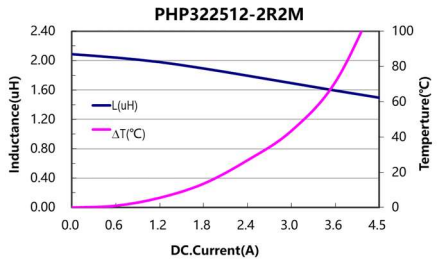
Note 5: The rated current as listed is either the saturation current or the heating current depending on which value is lower.

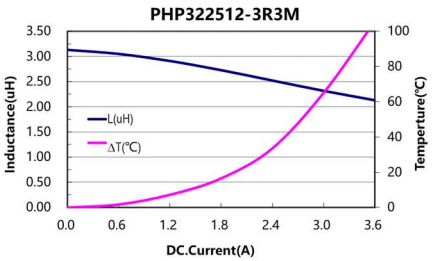
Typical performance curves :

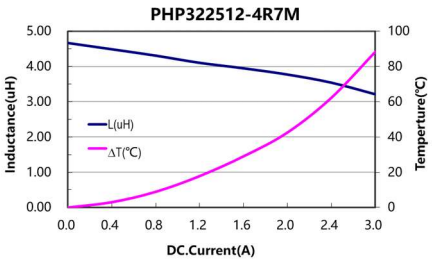


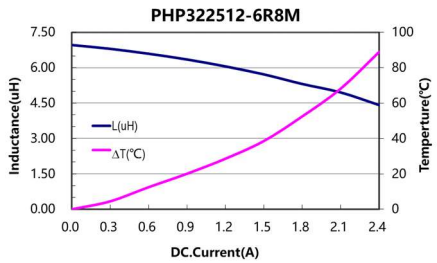












● PHP322520 Series

Part No.	Inductance L(uH)	Tolerance (±%)	DCR(mΩ)		Isat(A)		Irms(A)	
			Typ.	Max.	Typ.	Max.	Typ.	Max.
PHP322520-1R0M	1.0	20	22	25	8.0	7.0	4.5	4.0
PHP322520-1R5M	1.5	20	30	35	6.0	5.2	3.5	3.1
PHP322520-2R2M	2.2	20	33	46	5.0	4.3	3.0	2.6
PHP322520-3R3M	3.3	20	50	65	4.2	3.6	2.4	2.1
PHP322520-4R7M	4.7	20	86	98	3.4	2.9	2.2	1.9

If you require another part number please contact with us.

Note 1: Referenced ambient temperature 25℃.

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

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

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

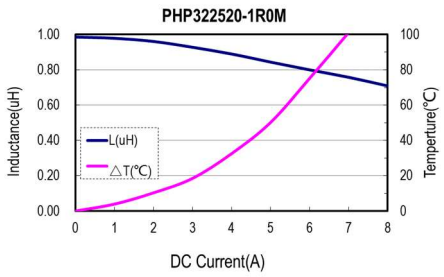
Irms (Typ) : DC current（A）that will cause an approximate ΔT of 40℃

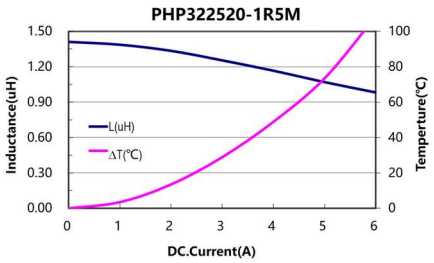
Irms (Max) : DC current（A）that will cause an ΔT of 40℃ Max

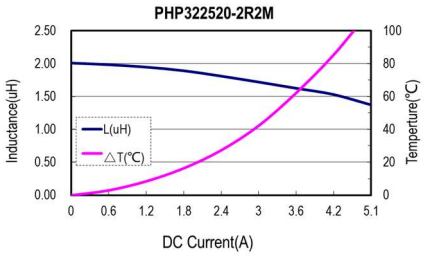
Note 4: Operating temperature range includes self-temperature rise.

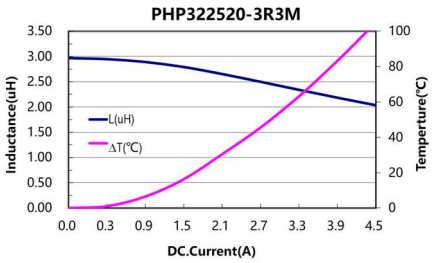
Note 5: The rated current as listed is either the saturation current or the heating current depending on which value is lower.

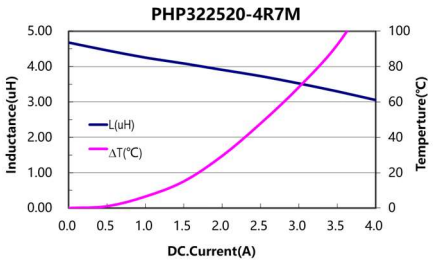
Typical performance curves :











* Due to the limited space, the catalogue shows the typical specifications only. For more specific details (characteristics graph, reliability, and others), kindly invite you to access 3L official website www.3lcoil.com for better known.