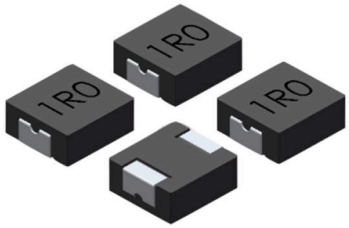
INDEX

HPI 03 SERIES

HIGH POWER INDUCTOR



Applications:

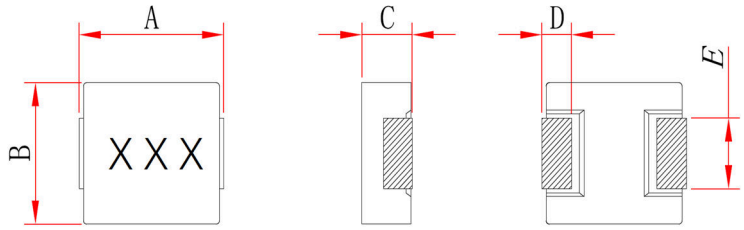
. DC/DC converter for CPU in Notebook PC

. Cellular phones, LCD displays, HDDs, DVCs, PDAs etc..

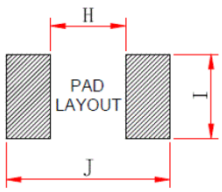
. Thin type on-board power supply module for exchanger

. VRM for server

Shape and Dimensions



Recommend Land Pattern Dimensions



Item	A	B	C	D	E	H	I	J
HPI0310	3.4±0.2	3.0±0.2	0.8±0.2	0.7±0.3	1.3±0.2	1.2	2.0	4.2
HPI0312	3.4±0.2	3.0±0.2	1.0±0.2	0.7±0.3	1.3±0.2	1.2	2.0	4.2
HPI0315	3.4±0.2	3.0±0.2	1.3±0.2	0.7±0.3	1.3±0.2	1.2	2.0	4.2
HPI0302	3.4±0.2	3.0±0.2	1.8±0.2	0.7±0.3	1.3±0.2	1.2	2.0	4.2

Features :

. High performance (I sat) realized by metal dust core.

. Low profile: 1.0~2.0mm

. Low loss realized with low DCR

. Magnetically Shielded.

. RoHS compliant.

Product Identification:

HPI 0310 – 1R0 M

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

(1) Series :**H**igh **P**ower **I**nductors.

(2) Dimensions :**0310** 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℃

Test equipments :

. L: Agilent E4980 Precision LCR Meter (Upgraded version of Agilent HP4284A) with HP42841A Current Source

. DCR: Milli-ohm meter

● HPI03 series

Part No.	Inductance L (uH)	Tolerance (±%)	DCR(mΩ)		I sat(A)		I rms(A)	
			Typ.	Max.	Typ.	Max.	Typ.	Max.
HPI0310-R15M	0.15	20	9.3	12.0	12.0	10.0	8.0	7.0
HPI0310-R22M	0.22	20	11.0	14.0	11.0	9.0	7.0	5.5
HPI0310-R33M	0.33	20	15.0	18.0	10.0	9.0	6.0	4.0
HPI0310-R47M	0.47	20	22.0	25.0	7.0	6.0	4.0	3.0
HPI0310-1R0M	1.0	20	40.0	48.0	5.0	4.0	2.8	2.4
HPI0310-1R5M	1.5	20	54.0	65.0	4.0	3.5	2.4	2.0
HPI0310-2R2M	2.2	20	87.0	100	3.5	3.0	1.8	1.5
HPI0310-100M	10.0	20	380	430	1.4	1.2	0.9	0.7
HPI0312-R12M	0.12	20	4.3	5.5	17	14.0	11.0	9.0
HPI0312-R22M	0.22	20	9.6	12.0	12	11.0	9.0	7.5
HPI0312-R33M	0.33	20	15.8	18.0	9.6	8.6	7.2	5.2
HPI0312-R47M	0.47	20	22.0	25.0	8.2	7.2	6.2	4.2
HPI0312-1R0M	1.0	20	39.2	45.0	5.8	5.0	4.0	3.0
HPI0312-2R2M	2.2	20	88.0	102	4.0	3.5	2.6	2.1
HPI0312-3R3M	3.3	20	136	155	3.2	2.8	1.8	1.4
HPI0312-4R7M	4.7	20	160	190	2.0	1.8	1.4	0.9
HPI0312-100M	10.0	20	313	360	1.5	1.2	1.0	0.8
HPI0315-R22M	0.22	20	10.7	13.0	14	12.0	11.0	9.0
HPI0315-R33M	0.33	20	15.0	18.0	13	11.5	8.5	6.5
HPI0315-R47M	0.47	20	19.0	22.0	9.0	7.5	7.0	5.0
HPI0315-1R0M	1.0	20	36.0	42.0	6.2	5.2	4.5	3.5
HPI0315-1R5M	1.5	20	50.0	60.0	5.8	4.8	3.8	3.0
HPI0315-2R2M	2.2	20	72.0	85.0	5.0	4.0	3.2	2.6
HPI0315-3R3M	3.3	20	92.0	110	3.5	3.0	2.2	1.5
HPI0315-100M	10.0	20	313	360	2.0	1.5	1.2	0.9
HPI0302-R22M	0.22	20	8.0	10.0	16	13.0	10.0	8.0
HPI0302-R33M	0.33	20	12.0	15.0	14	12.0	9.0	7.0
HPI0302-R47M	0.47	20	15.0	18.0	12	10.0	8.0	6.5
HPI0302-R68M	0.68	20	22.0	26.0	10	8.5	7.0	5.5
HPI0302-1R0M	1.0	20	25.0	30.0	8.0	6.5	5.0	4.0
HPI0302-1R5M	1.5	20	34.0	39.0	6.0	5.0	4.2	3.2
HPI0302-2R2M	2.2	20	60.0	69.0	4.8	4.0	3.3	2.8
HPI0302-3R3M	3.3	20	70.0	83.0	4.0	3.5	2.8	2.2
HPI0302-4R7M	4.7	20	120	144	3.5	3.0	2.4	2.0
HPI0302-6R8M	6.8	20	153	184	3.0	2.6	1.6	1.2
HPI0302-100M	10.0	20	224	260	1.8	1.6	1.3	1.0

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: 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℃

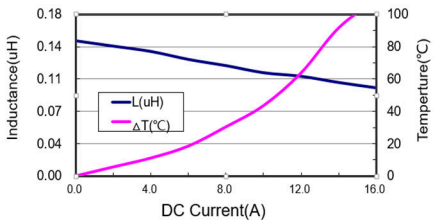
I rms (Max) : DC current（A）that will cause an ΔT of 40℃ Max

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

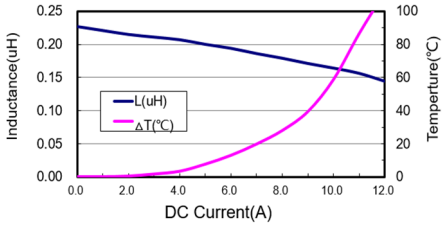
Note 5: The rated current as listed is either the saturation current or the heating current depending on which value is lower.

Typical Performance curves:

HPI0310-R15M



HPI0310-R22M



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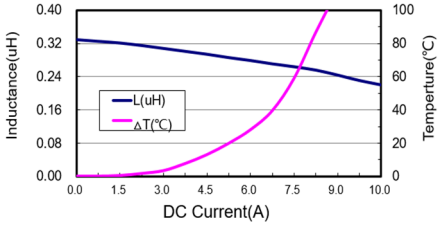
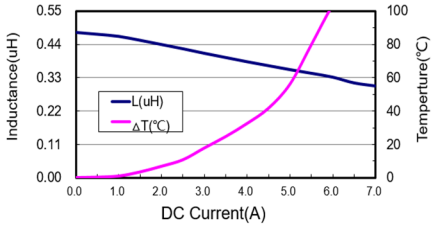
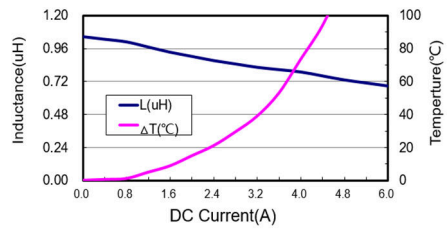


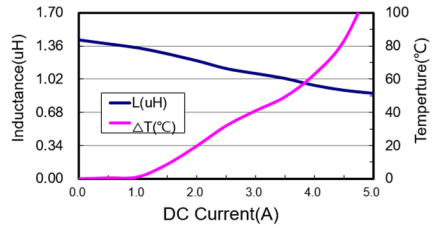
HPI0310-R47M



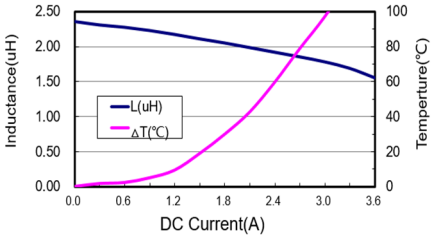
HPI0310-1R0M



HPI0310-1R5M



HPI0310-2R2M



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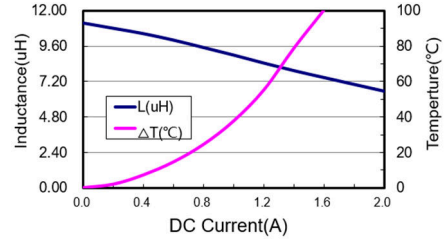

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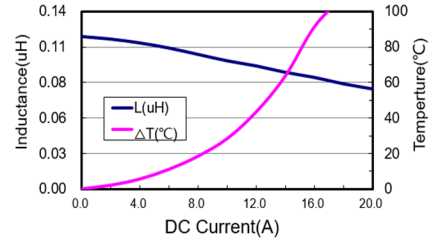

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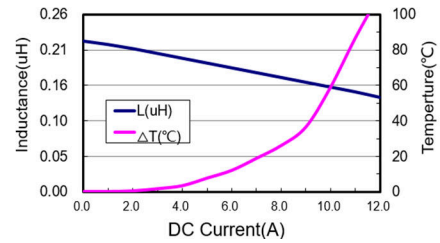

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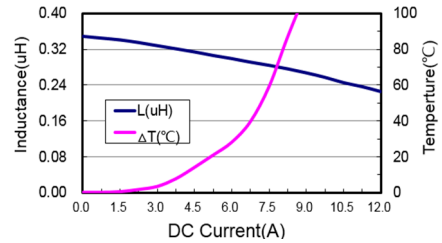

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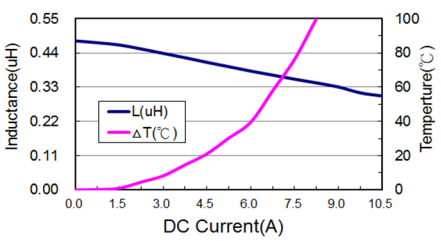

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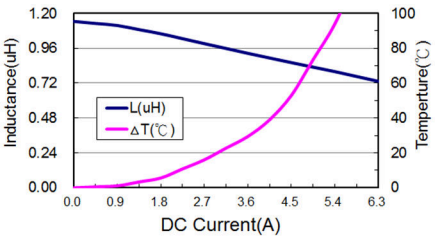
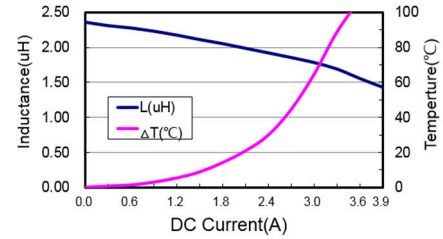
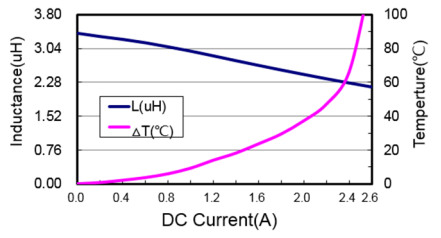


HPI0312-2R2M



HPI0312-3R3M



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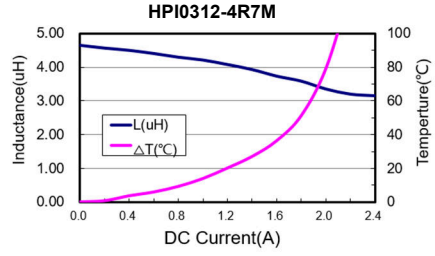

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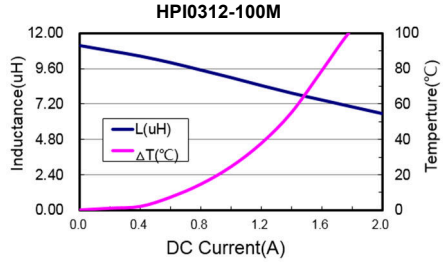

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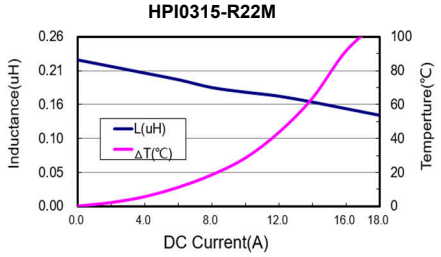
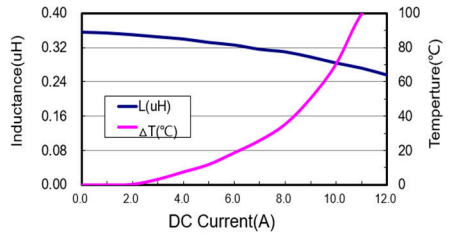


Typical Performance curves:

HPI0315-R33M



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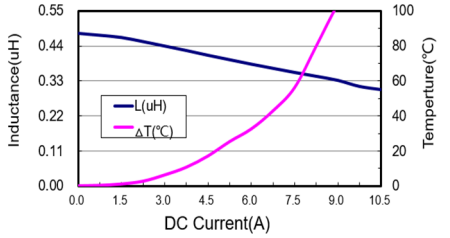

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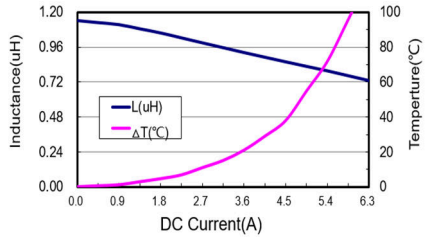

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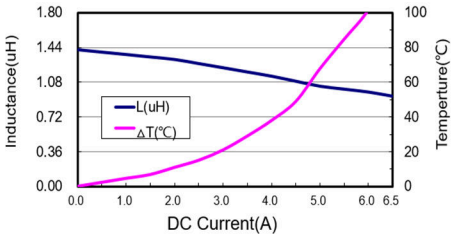

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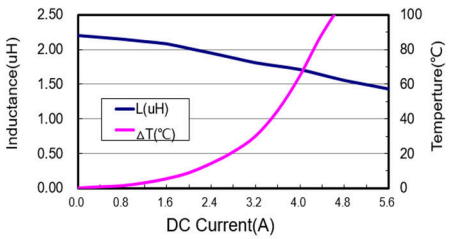

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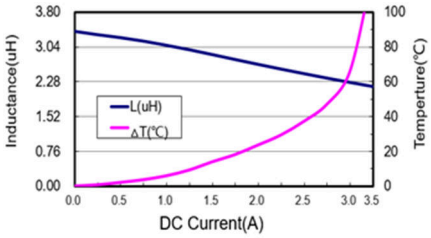

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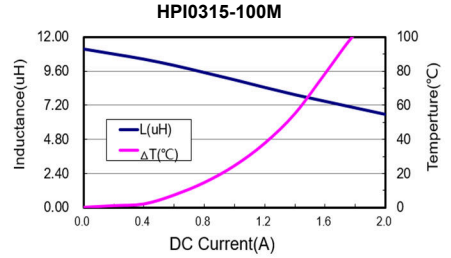

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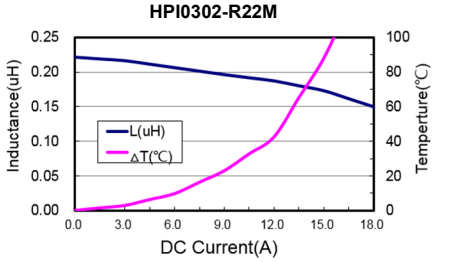

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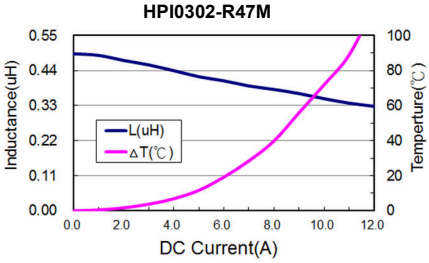

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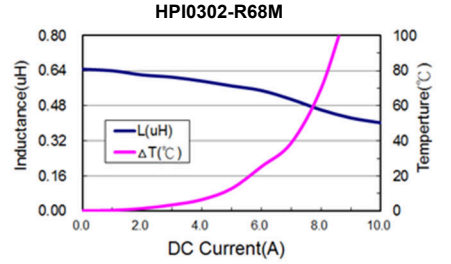

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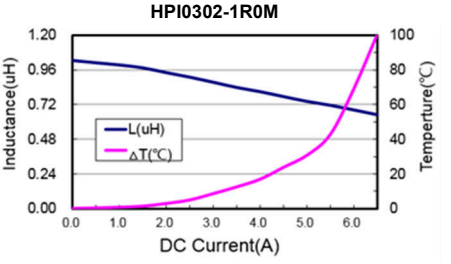
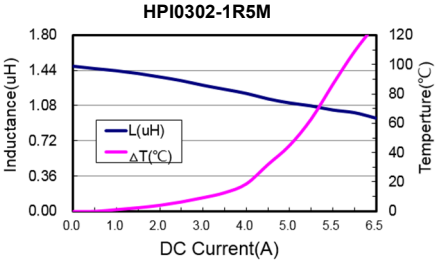
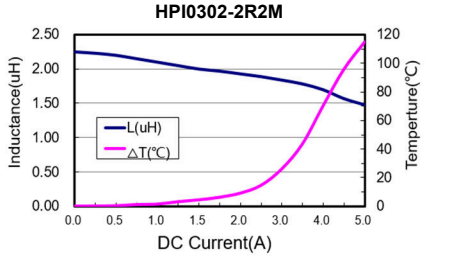


HPI0302-1R5M



HPI0302-2R2M



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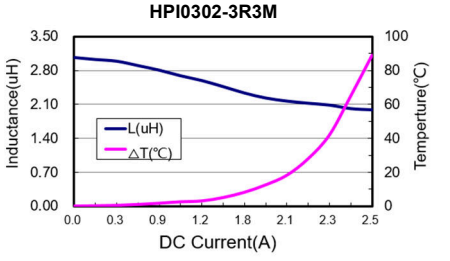

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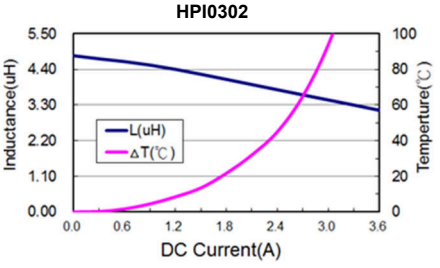

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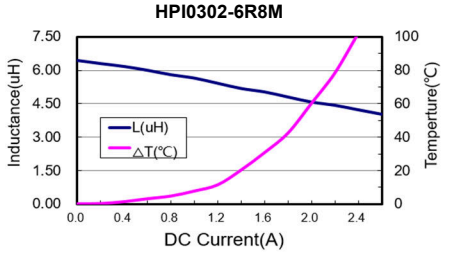

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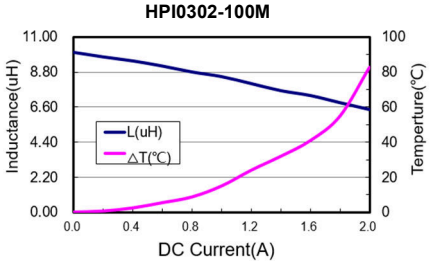
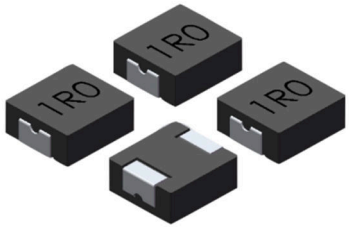


* Due to the limited space, the catalogue shows the typical specifications only. For more specific details (characteristics graph, reliability, and others), kindly invite you to access 3L official website www.3lcoil.com for better known.

HPI 04 SERIES

HIGH POWER INDUCTOR



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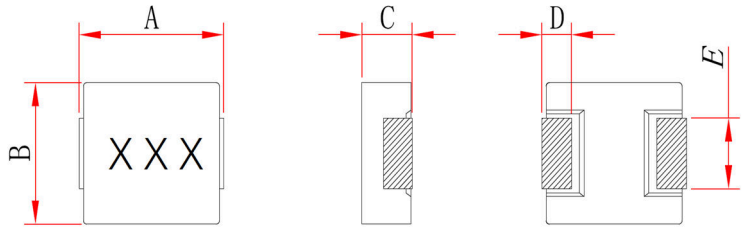
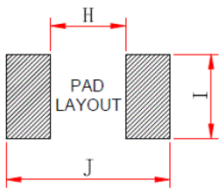
Shape and Dimensions



Recommend Land Pattern Dimensions



Item	A	B	C	D	E	H	I	J
HPI0410	4.4±0.2	4.0±0.2	0.8±0.2	0.76±0.3	2.0±0.3	2.16	2.30	4.95
HPI0412	4.4±0.2	4.0±0.2	1.0±0.2	0.76±0.3	2.0±0.3	2.16	2.30	4.95
HPI0415	4.4±0.2	4.0±0.2	1.3±0.2	0.76±0.3	2.0±0.3	2.16	2.30	4.95
HPI0402	4.4±0.2	4.0±0.2	1.8±0.2	0.76±0.3	2.0±0.3	2.16	2.30	4.95

Features :

. High performance (I sat) realized by metal dust core.

. Low profile: 1.0~2.0mm

. Low loss realized with low DCR

. Magnetically Shielded.

. RoHS compliant.

Product Identification:

HPI 0410 – 1R0 M

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

(1) Series :**H**igh **P**ower **I**nductors.

(2) Dimensions :**0410** 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℃

Test equipments :

. L: Agilent E4980 Precision LCR Meter (Upgraded version of Agilent HP4284A) with HP42841A Current Source

. DCR: Milli-ohm meter

● HPI04 series

Part No.	Inductance L(uH)	Tolerance (±%)	DCR(mΩ)		I sat(A)		I rms(A)	
			Typ.	Max.	Typ.	Max.	Typ.	Max.
HPI0410-R22M	0.22	20	9.8	12.0	18.0	15.0	11.0	9.0
HPI0410-R33M	0.33	20	11.7	14.5	14.0	12.0	10.0	8.0
HPI0410-R47M	0.47	20	15.2	18.5	11.0	9.0	8.5	7.0
HPI0410-1R0M	1.0	20	35.0	42.0	6.5	5.5	4.2	3.5
HPI0410-2R2M	2.2	20	90.0	108	4.5	4.0	2.8	2.4
HPI0410-6R8M	6.8	20	224	268	2.8	2.2	1.4	1.1
HPI0410-100M	10.0	20	260	312	1.7	1.4	1.1	0.8
HPI0412-R33M	0.33	20	12.0	14.5	14.0	12.0	10.0	8.0
HPI0412-R47M	0.47	20	16.8	20.0	13.0	10.0	8.8	7.0
HPI0412-R68M	0.68	20	19.0	23.0	9.0	7.0	6.0	5.0
HPI0412-1R0M	1.0	20	36.5	43.0	7.8	6.2	5.2	4.5
HPI0412-1R5M	1.5	20	54.5	62.0	6.2	5.4	4.2	3.5
HPI0412-2R2M	2.2	20	72.0	80.0	5.5	4.5	3.5	3.0
HPI0412-3R3M	3.3	20	97.0	111	4.5	3.9	2.8	2.4
HPI0412-4R7M	4.7	20	119	143	3.2	2.8	2.2	1.8
HPI0415-R12M	0.12	20	6.0	7.2	24.0	22.0	14.0	12.0
HPI0415-R22M	0.22	20	7.3	8.8	20.0	15.0	13.0	11.0
HPI0415-R33M	0.33	20	12.0	14.5	14.0	12.5	10.0	8.0
HPI0415-R47M	0.47	20	17.8	22.0	13.0	11.0	8.8	7.0
HPI0415-1R0M	1.0	20	28.5	33.5	8.0	6.5	5.5	5.0
HPI0415-1R5M	1.5	20	41.0	47.0	7.0	6.0	4.2	3.5
HPI0415-2R2M	2.2	20	53.0	62.5	5.5	4.5	3.5	3.0
HPI0415-100M	10.0	20	232	278	2.0	1.8	1.2	1.0
HPI0402-R12M	0.12	20	3.5	4.2	30.0	24.0	15.0	12.0
HPI0402-R22M	0.22	20	6.2	7.4	24.0	18.0	14.0	12.0
HPI0402-R33M	0.33	20	7.0	8.4	14.0	12.0	11.0	9.0
HPI0402-R47M	0.47	20	9.4	11.3	14.0	12.0	10.0	8.0
HPI0402-R68M	0.68	20	13.3	16.0	12.0	11.0	9.0	7.0
HPI0402-1R0M	1.0	20	16.4	20.0	9.0	7.2	6.5	5.5
HPI0402-1R5M	1.5	20	22.0	26.4	7.5	6.5	4.8	4.0
HPI0402-2R2M	2.2	20	31.5	38.0	6.0	5.5	4.0	3.5
HPI0402-3R3M	3.3	20	45.0	54.0	5.0	4.5	3.5	3.0
HPI0402-4R7M	4.7	20	58.0	70.0	4.5	4.0	3.0	2.2
HPI0402-6R8M	6.8	20	86.0	103	3.5	3.0	2.4	2.0
HPI0402-100M	10.0	20	170	190	3.5	3.0	2.0	1.8
HPI0402-150M	15.0	20	240	275	2.6	2.0	1.8	1.3
HPI0402-220M	22.0	20	265	320	2.1	1.6	1.2	1.0

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: 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℃

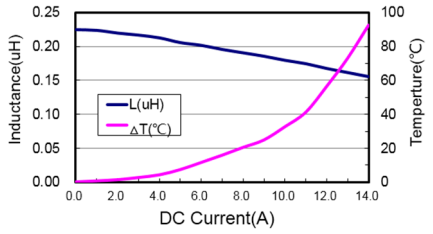
I rms (Max) : DC current（A）that will cause an ΔT of 40℃ Max

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

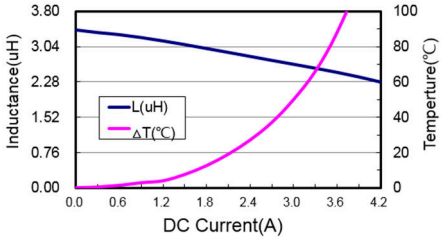
Note 5: The rated current as listed is either the saturation current or the heating current depending on which value is lower.

Typical Performance curves:

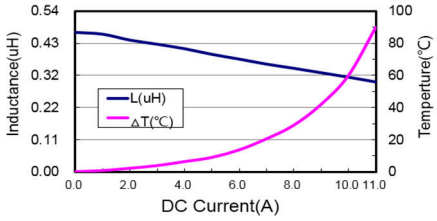
HPI0410-R22M



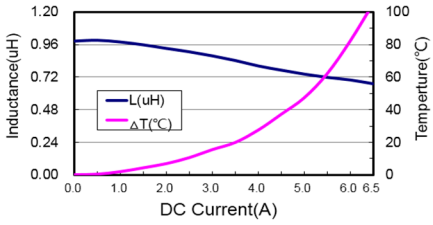
HPI0410-R33M



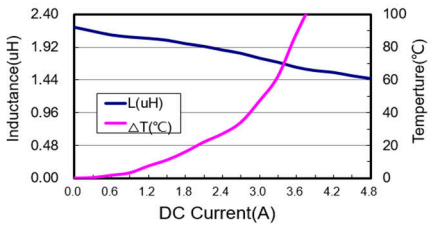
HPI0410-R47M



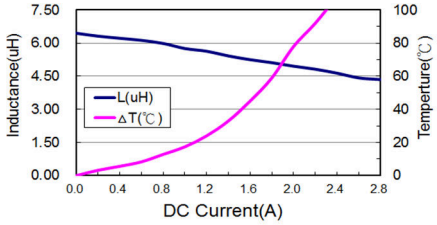
HPI0410-1R0M



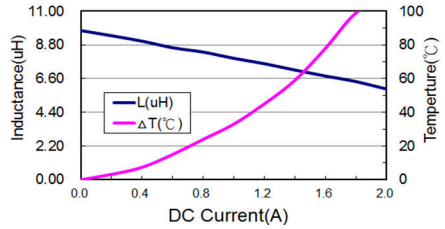
HPI0410-2R2M



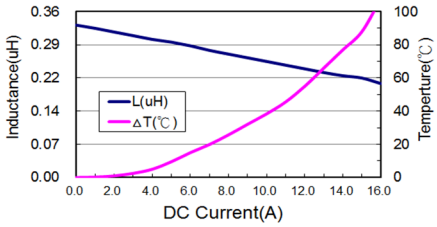
HPI0410-6R8M



HPI0410-100M



HPI0412-R33M



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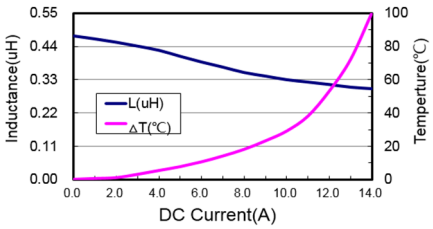
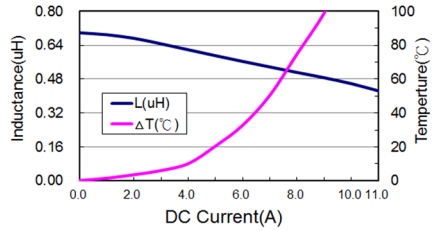
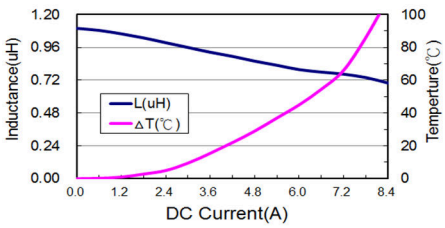


HPI0412-R68M



HPI0412-1R0M



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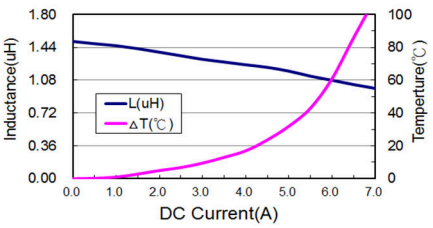
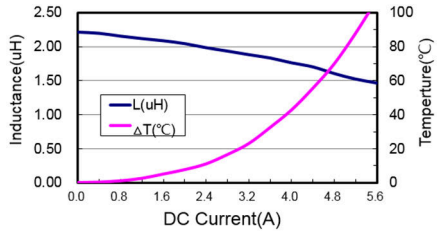
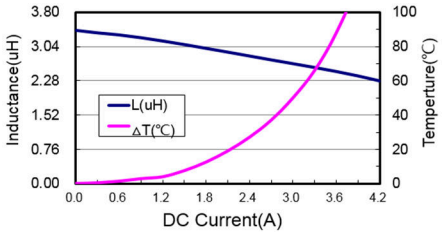


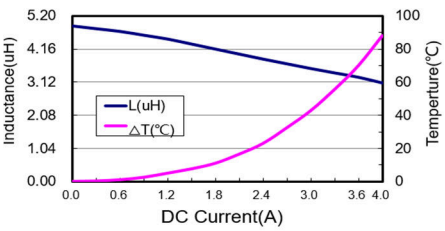
HPI0412-2R2M



HPI0412-3R3M

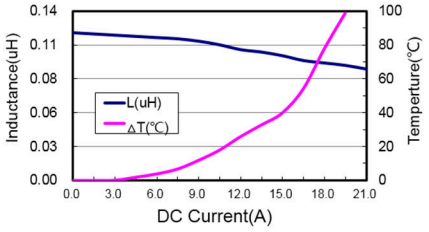


HPI0412-4R7M

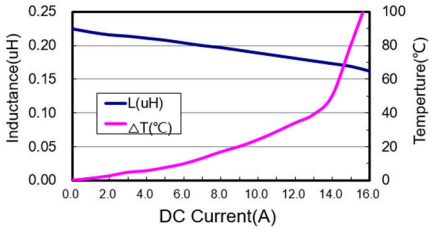


Typical Performance curves:

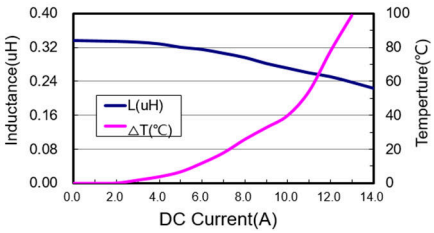
HPI0415-R12M



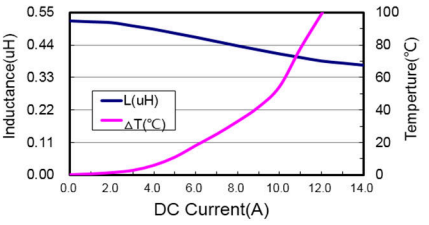
HPI0415-R22M



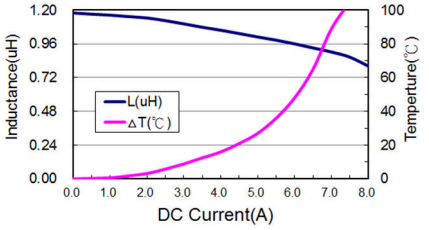
HPI0415-R33M



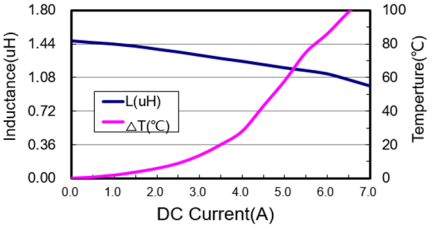
HPI0415-R47M



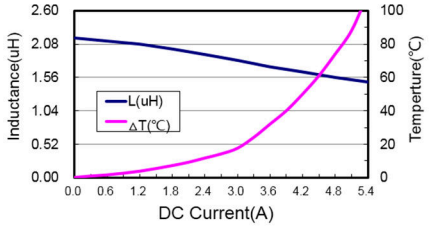
HPI0415-1R0M



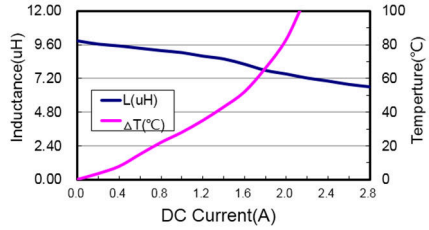
HPI0415-1R5M



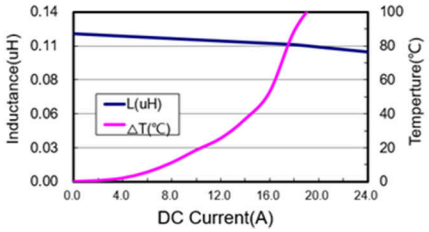
HPI0415-2R2M



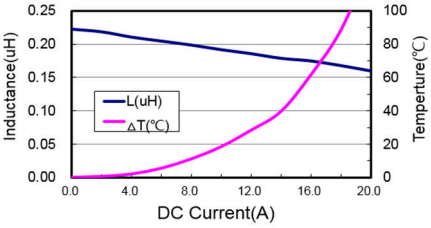
HPI0415-100M



HPI0402-R12M



HPI0402-R22M



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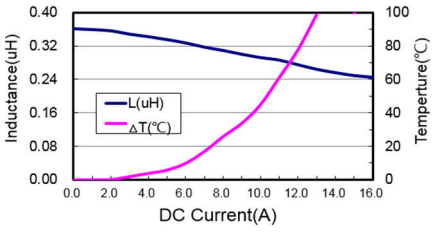

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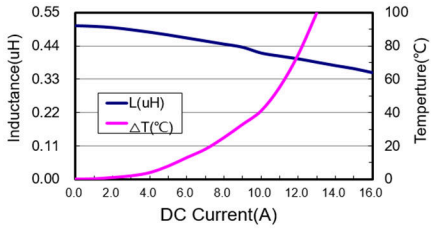
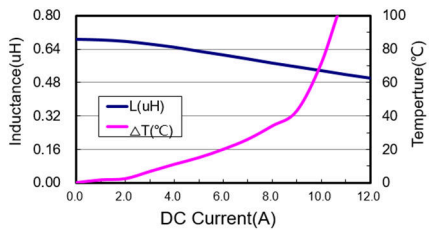
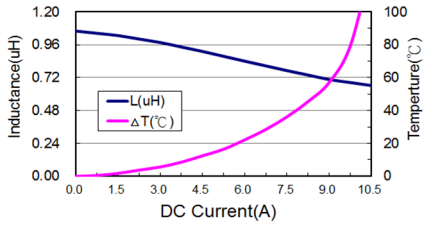


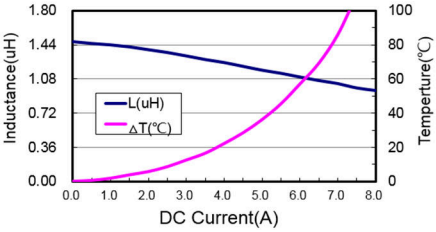
HPI0402-R68M



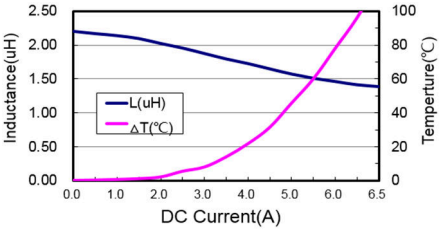
HPI0402-1R0M



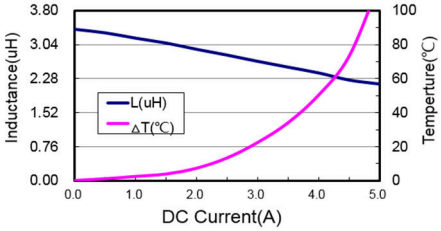
HPI0402-1R5M



HPI0402-2R2M

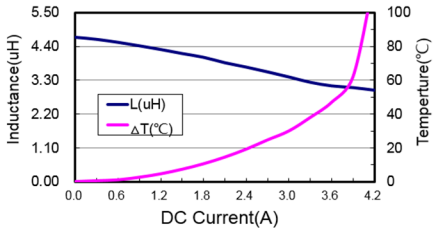


HPI0402-3R3M



Typical Performance curves:

HPI0402-4R7M



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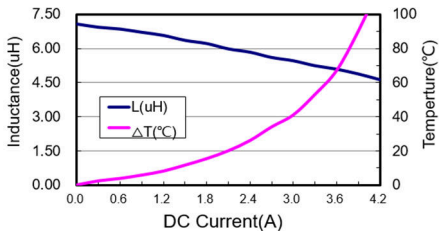
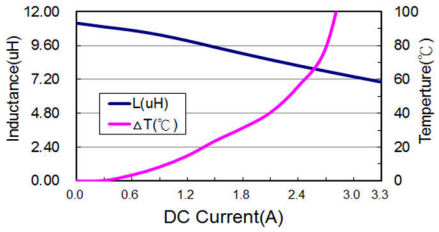
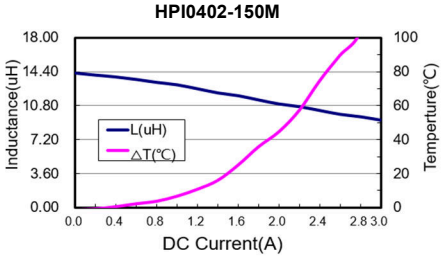


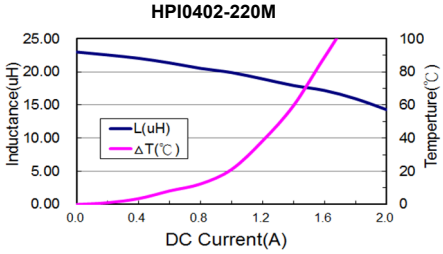
HPI0402-100M



HPI0402-150M



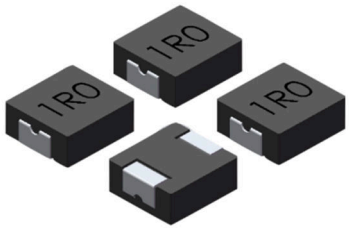
HPI0402-220M



* 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.

HPI 05 SERIES

HIGH POWER INDUCTOR



Applications:

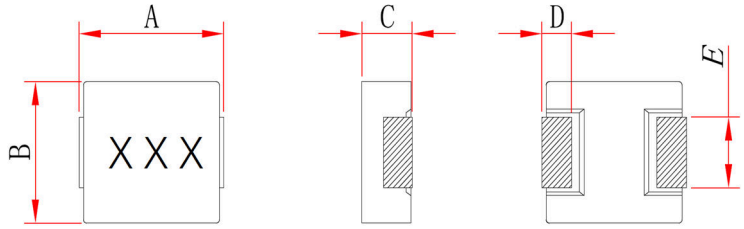
. DC/DC converter for CPU in Notebook PC

. Cellular phones, LCD displays, HDDs, DVCs, PDAs etc..

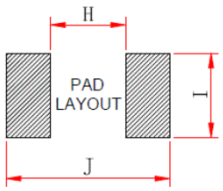
. Thin type on-board power supply module for exchanger

. VRM for server

Shape and Dimensions



Recommend Land Pattern Dimensions



Item	A	B	C	D	E	H	I	J
HPI0510	5.5±0.2	5.2±0.2	0.8±0.2	1.02±0.3	2.5±0.3	2.16	2.79	5.99
HPI0512	5.5±0.2	5.2±0.2	1.0±0.2	1.02±0.3	2.5±0.3	2.16	2.79	5.99
HPI0515	5.5±0.2	5.2±0.2	1.3±0.2	1.02±0.3	2.5±0.3	2.16	2.79	5.99
HPI0518	5.5±0.2	5.2±0.2	1.6±0.2	1.02±0.3	2.5±0.3	2.16	2.79	5.99
HPI0502	5.5±0.2	5.2±0.2	1.8±0.2	1.02±0.3	2.5±0.3	2.16	2.79	5.99

Features :

. High performance (I sat) realized by metal dust core.

. Low profile: 1.0~2.0mm

. Low loss realized with low DCR

. Magnetically Shielded.

. RoHS compliant.

Product Identification:

HPI 0510 – 1R0 M

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

(1) Series :**H**igh **P**ower **I**nductors.

(2) Dimensions :**0510** 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℃

Test equipments :

. L: Agilent E4980 Precision LCR Meter (Upgraded version of Agilent HP4284A) with HP42841A Current Source

. DCR: Milli-ohm meter

HPI05 SERIES

Part No.	Inductance L (uH)	Tolerance (±%)	DCR(mΩ)		I sat(A)		I rms(A)	
			Typ.	Max.	Typ.	Max.	Typ.	Max.
HPI0510-1R0M	1.0	20	42.8	52.0	9.4	7.8	3.5	3.0
HPI0510-2R2M	2.2	20	87.0	105	4.5	3.8	3.0	2.5
HPI0510-4R7M	4.7	20	158	190	4.0	3.5	2.2	2.0
HPI0512-1R0M	1.0	20	27.6	31.8	9.0	8.2	5.7	4.8
HPI0512-2R2M	2.2	20	55.0	66.0	5.2	4.2	4.0	3.5
HPI0512-4R7M	4.7	20	130	156	4.0	3.5	2.5	2.0
HPI0512-100M	10.0	20	272	326	2.5	2.2	1.8	1.5
HPI0515-R68M	0.68	20	11.6	14.5	15.0	13.0	9.0	8.0
HPI0515-1R0M	1.0	20	18.8	22.6	11.5	9.5	6.6	6.0
HPI0515-1R5M	1.5	20	28.0	34.0	9.5	8.2	5.7	5.0
HPI0515-2R2M	2.2	20	41.4	49.5	7.0	6.0	4.3	3.4
HPI0515-4R7M	4.7	20	80.0	96.0	5.0	4.2	3.0	2.6
HPI0515-100M	10.0	20	149	170	3.6	3.0	2.4	2.0
HPI0518-R47M	0.47	20	7.4	8.9	19.0	15.5	10.5	9.5
HPI0518-2R2M	2.2	20	29.2	35.0	8.2	7.4	5.2	4.7
HPI0518-4R7M	4.7	20	61.8	72.8	4.6	4.0	3.5	3.0
HPI0518-6R8M	6.8	20	71.5	86.0	3.6	3.0	3.2	2.8
HPI0518-100M	10.0	20	126	149	3.4	2.9	2.8	2.4
HPI0502-1R0M	1.0	20	13.7	16.5	13.5	10.6	7.5	6.8
HPI0502-3R3M	3.3	20	49.4	59.3	7.8	6.5	4.2	3.5
HPI0502-4R7M	4.7	20	54.0	65.0	4.8	4.0	4.1	3.2
HPI0502-100M	10.0	20	135	162	4.0	3.3	2.5	2.0

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: 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℃

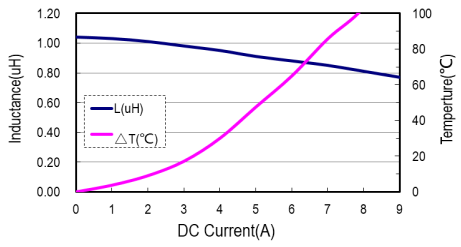
I rms (Max) : DC current（A）that will cause an ΔT of 40℃ Max

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

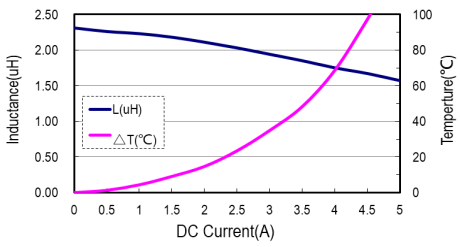
Note 5: The rated current as listed is either the saturation current or the heating current depending on which value is lower.

TYPICAL PERFORMANCE CURVES

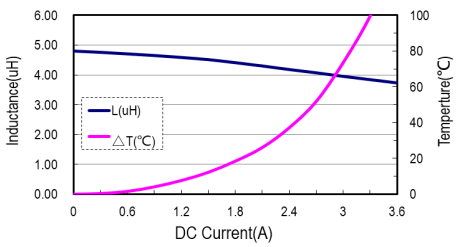
HPI0510-1R0M



HPI0510-2R2M



HPI0510-4R7M



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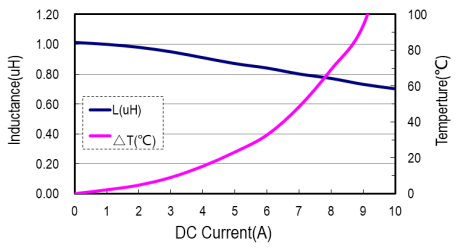

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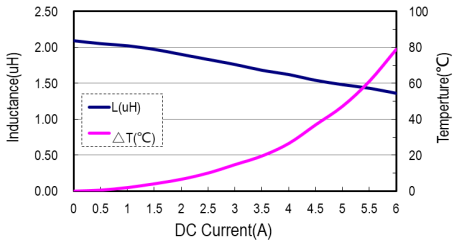
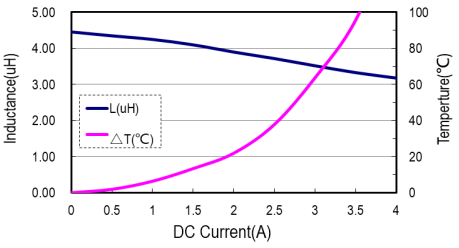
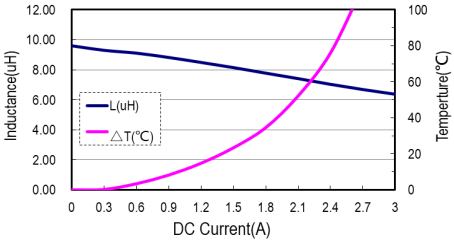


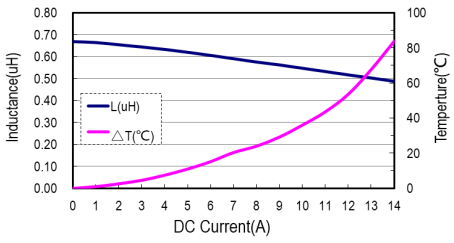
HPI0512-4R7M



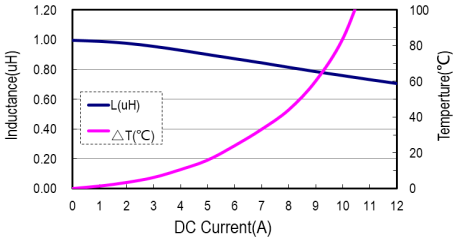
HPI0512-100M



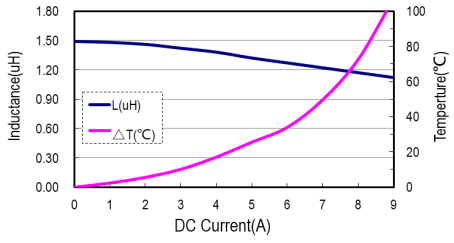
HPI0515-R68M



HPI0515-1R0M



HPI0515-1R5M



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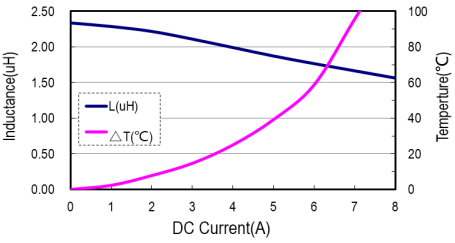

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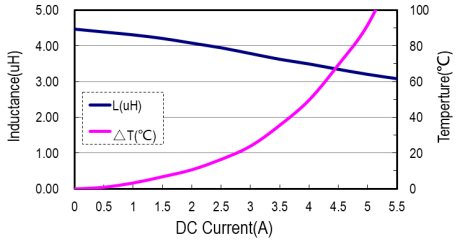
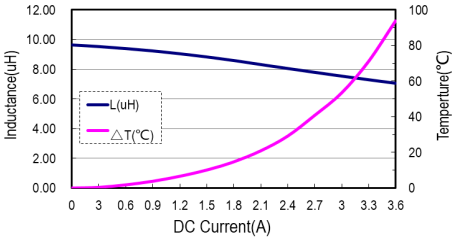
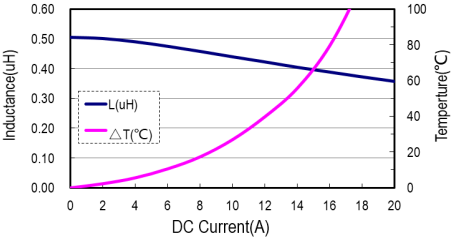


HPI0515-100M



HPI0518-R47M



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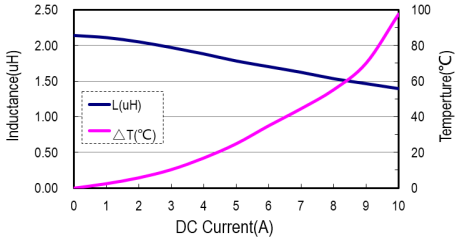
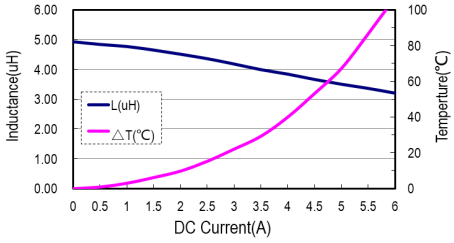
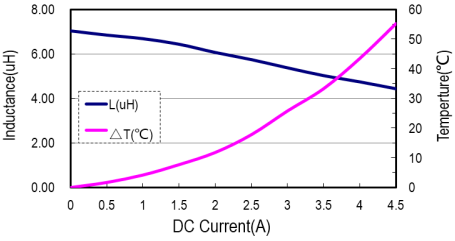


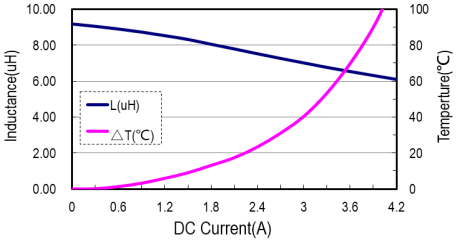
HPI0518-4R7M



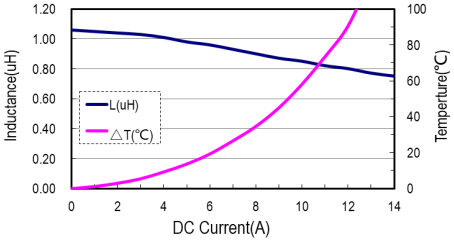
HPI0518-6R8M



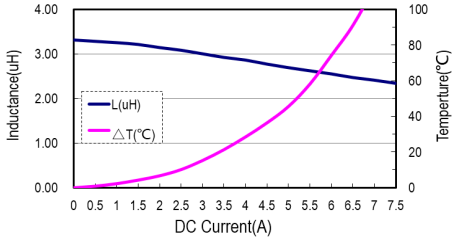
HPI0518-100M



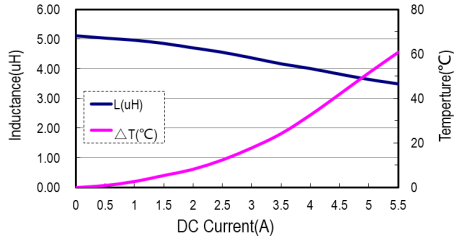
HPI0502-1R0M



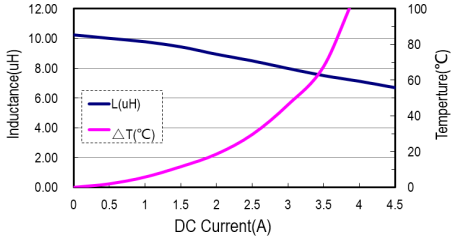
HPI0502-3R3M



HPI0502-4R7M



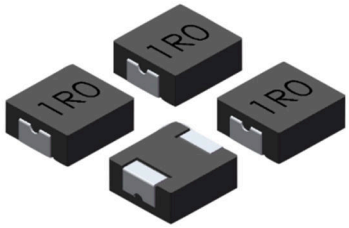
HPI0502-100M



* 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.

HPI 06 SERIES

HIGH POWER INDUCTOR



Applications:

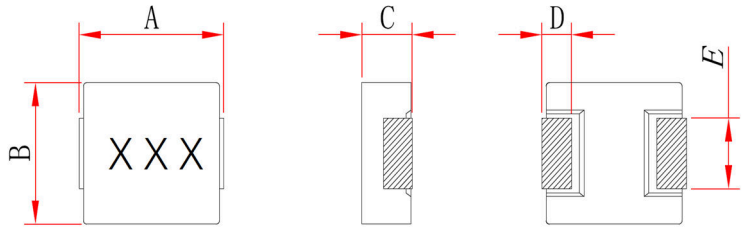
. DC/DC converter for CPU in Notebook PC

. Cellular phones, LCD displays, HDDs, DVCs, PDAs etc..

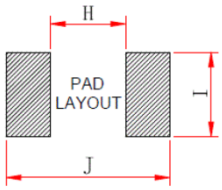
. Thin type on-board power supply module for exchanger

. VRM for server

Shape and Dimensions



Recommend Land Pattern Dimensions



Item	A	B	C	D	E	H	I	J
HPI0610	7.1±0.2	6.6±0.2	0.8±0.2	1.60±0.3	3.2±0.3	3.70	3.50	8.00
HPI0612	7.1±0.2	6.6±0.2	1.0±0.2	1.60±0.3	3.2±0.3	3.70	3.50	8.00
HPI0615	7.1±0.2	6.6±0.2	1.3±0.2	1.60±0.3	3.2±0.3	3.70	3.50	8.00
HPI0618	7.1±0.2	6.6±0.2	1.6±0.2	1.60±0.3	3.2±0.3	3.70	3.50	8.00
HPI0602	7.1±0.2	6.6±0.2	1.8±0.2	1.60±0.3	3.2±0.3	3.70	3.50	8.00

Features :

. High performance (I sat) realized by metal dust core.

. Low profile: 1.0~2.0mm

. Low loss realized with low DCR

. Magnetically Shielded.

. RoHS compliant.

Product Identification:

HPI 0610 – 1R0 M

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

(1) Series :**H**igh **P**ower **I**nductors.

(2) Dimensions :**0610** 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℃

Test equipments :

. L: Agilent E4980 Precision LCR Meter (Upgraded version of Agilent HP4284A) with HP42841A Current Source

. DCR: Milli-ohm meter

HPI06 SERIES

Part No.	Inductance L (uH)	Tolerance (±%)	DCR(mΩ)		I sat(A)		I rms(A)	
			Typ.	Max.	Typ.	Max.	Typ.	Max.
HPI0610-R68M	0.68	20	23.2	27.8	12.5	10.5	6.2	5.5
HPI0610-1R0M	1.0	20	34.5	41.5	11.0	9.0	5.2	4.2
HPI0610-1R5M	1.5	20	59.3	71.0	7.3	6.3	4.2	3.7
HPI0612-1R0M	1.0	20	24.9	28.0	12.0	9.7	6.0	5.0
HPI0612-2R2M	2.2	20	54.4	65.0	6.4	5.8	4.5	4.0
HPI0612-4R7M	4.7	20	76.2	91.0	4.5	4.0	3.5	3.0
HPI0615-1R0M	1.0	20	18.4	21.0	12.0	10.0	8.2	7.6
HPI0615-1R5M	1.5	20	23.9	28.0	11.2	9.6	7.0	6.0
HPI0615-2R2M	2.2	20	36.0	42.0	7.5	7.0	6.0	5.2
HPI0615-3R3M	3.3	20	54.0	63.0	7.0	6.4	4.8	4.2
HPI0618-2R2M	2.2	20	29.7	34.0	11.0	10.0	6.0	5.0
HPI0618-3R3M	3.3	20	46.6	56.0	8.4	7.0	4.5	4.0
HPI0618-100M	10.0	20	125	145	4.8	4.0	2.6	2.4
HPI0602-2R2M	2.2	20	18.5	22.5	10.5	9.0	7.0	6.5
HPI0602-3R3M	3.3	20	40.0	48.0	9.2	8.3	4.8	4.2
HPI0602-4R7M	4.7	20	41.0	50.0	7.6	6.5	4.5	4.0

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: 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℃

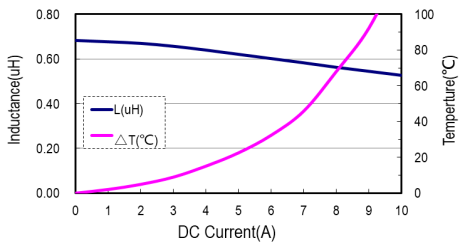
I rms (Max) : DC current（A）that will cause an ΔT of 40℃ Max

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

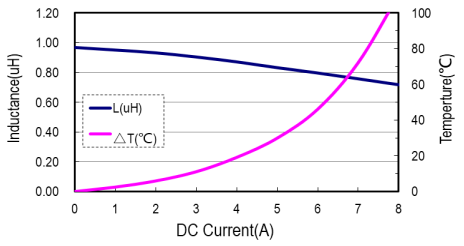
Note 5: The rated current as listed is either the saturation current or the heating current depending on which value is lower.

TYPICAL PERFORMANCE CURVES

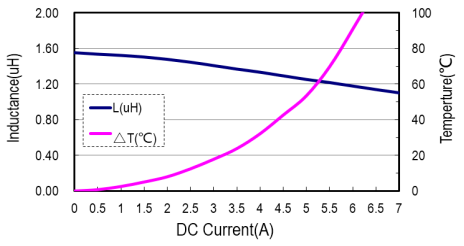
HPI0610-R68M



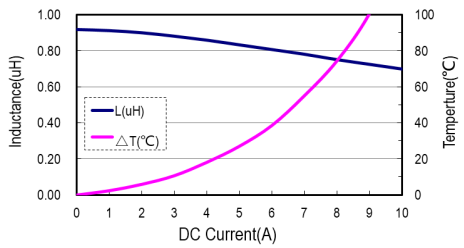
HPI0610-1R0M



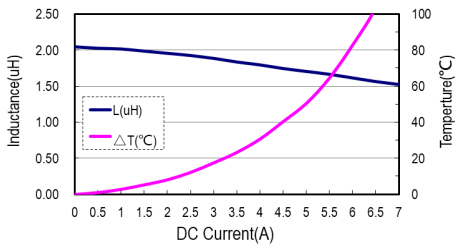
HPI0610-1R5M



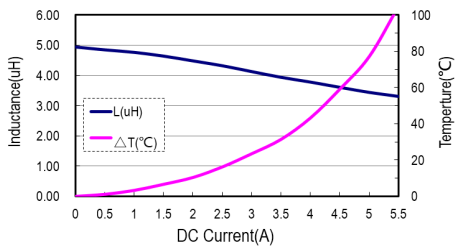
HPI0612-1R0M



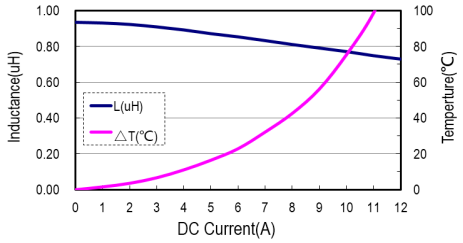
HPI0612-2R2M



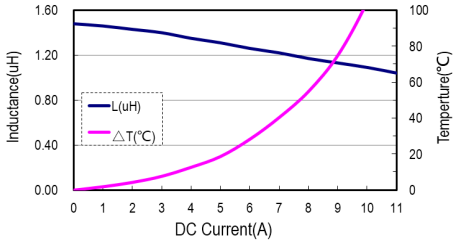
HPI0612-4R7M



HPI0615-1R0M



HPI0615-1R5M



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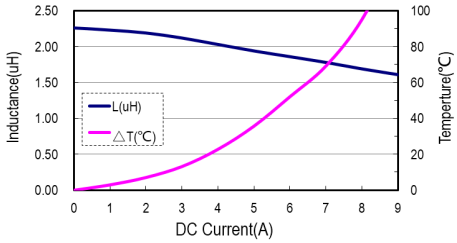

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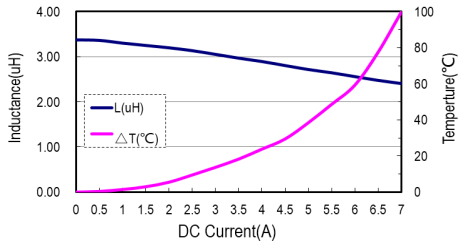

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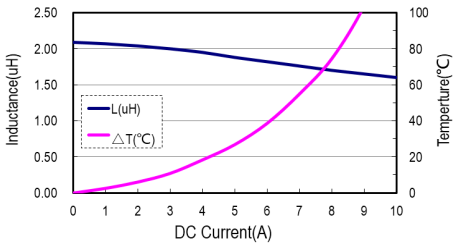

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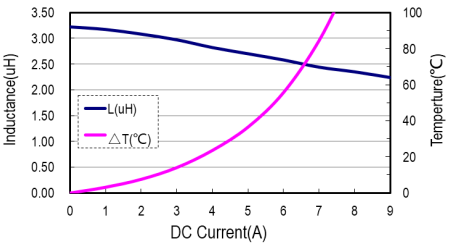

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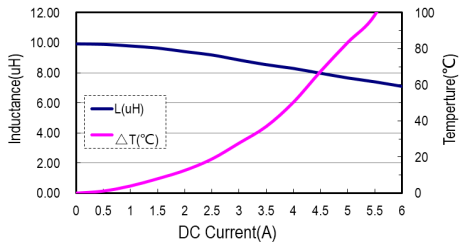

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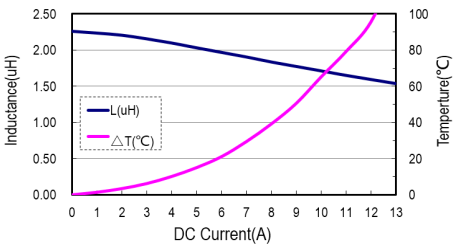

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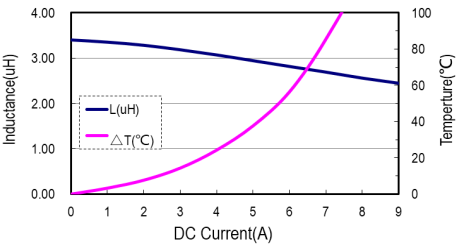

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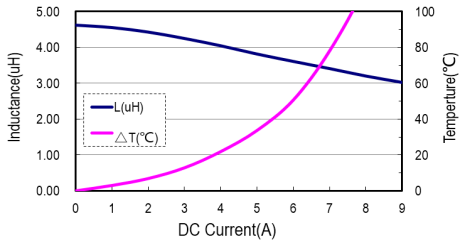
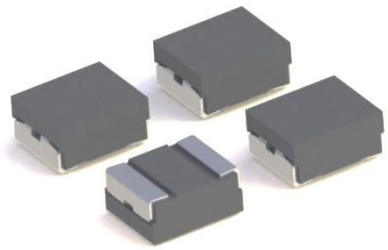


* Due to the limited space, the catalogue shows the typical specifications only. For more specific details (characteristics graph, reliability, and others), kindly invite you to access 3L official website www.3lcoil.com for better known.

HPI 2016/2520 SERIES

HIGH POWER INDUCTOR



Applications:

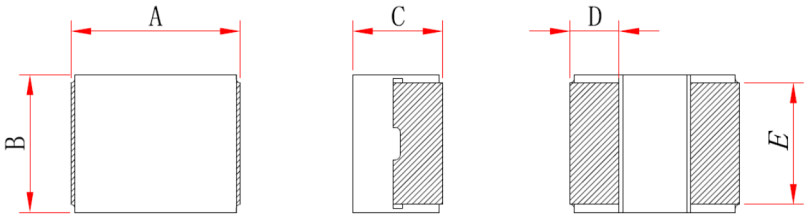
. DC/DC converter for CPU in Notebook PC

. Cellular phones, LCD displays, HDDs, DVCs, PDAs etc..

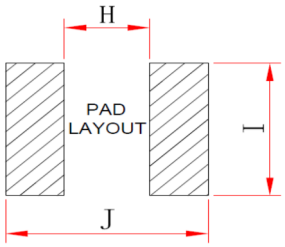
. Thin type on-board power supply module for exchanger

. VRM for server

Shape and Dimensions



Recommend Land Pattern Dimensions



Item	A	B	C	D	E	H	I	J
HPI201610	2.0±0.2	1.6±0.2	1.0 Max	0.5±0.2	1.44	0.9	1.6	2.3
HPI201612	2.0±0.2	1.6±0.2	1.2 Max	0.5±0.2	1.44	0.9	1.6	2.3
HPI252010	2.5±0.2	2.0±0.2	1.0 Max	0.6±0.2	1.84	1.2	2.0	2.8
HPI252012	2.5±0.2	2.0±0.2	1.2 Max	0.6±0.2	1.84	1.2	2.0	2.8

Features :

. High performance (I sat) realized by metal dust core.

. Low profile: 2.0mm x 1.6mm x 1.0mm
2.0mm x 1.6mm x 1.2mm
2.5mm x 2.0mm x 1.0mm
2.5mm x 2.0mm x 1.2mm

. Low loss realized with low DCR

. Magnetically Shielded.

. RoHS compliant.

Product Identification:

HPI 201610 – 1R0 M

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

(1) Series :**H**igh **P**ower **I**nductors.

(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℃

Test equipments :

. L: Agilent E4980 Precision LCR Meter (Upgraded version of Agilent HP4284A) with HP42841A Current Source

. DCR: Milli-ohm meter

● HPI2016/2520 series

Part No.	Inductance L(uH)	Tolerance (±%)	DCR(mΩ)		I sat(A)		I rms(A)	
			Typ.	Max.	Typ.	Max.	Typ.	Max.
HPI201610-R24M	0.24	20	20.0	24.0	4.8	4.3	4.0	3.5
HPI201610-R33M	0.33	20	29.0	36.0	4.2	3.7	3.4	3.0
HPI201610-R47M	0.47	20	36.0	46.0	3.56	3.2	2.7	2.43
HPI201610-R68M	0.68	20	55.0	66.0	3.2	2.9	2.4	2.2
HPI201610-1R0M	1.0	20	63.0	78.0	2.7	2.2	2.1	1.9
HPI201610-1R5M	1.5	20	105	137	2.2	2.0	1.8	1.6
HPI201610-2R2M	2.2	20	174	197	1.9	1.6	1.6	1.4
HPI201612-R24M	0.24	20	17.0	21.0	5.3	4.8	4.5	4.0
HPI201612-R33M	0.33	20	27.0	33.0	4.6	4.0	3.9	3.5
HPI201612-R47M	0.47	20	30.0	36.0	3.9	3.5	3.5	3.1
HPI201612-R68M	0.68	20	46.0	55.0	3.5	3.0	2.8	2.6
HPI201612-1R0M	1.0	20	60.0	72.0	2.9	2.5	2.4	2.2
HPI201612-1R5M	1.5	20	86.0	112	2.4	2.2	1.9	1.7
HPI201612-2R2M	2.2	20	146	186	2.0	1.65	1.5	1.35
HPI252010-R22M	0.22	20	15.0	18.0	6.6	6.0	5.8	5.22
HPI252010-R33M	0.33	20	18.0	26.0	5.3	4.77	4.4	4.0
HPI252010-R47M	0.47	20	25.0	41.0	4.5	4.05	3.5	3.1
HPI252010-R68M	0.68	20	40.0	48.0	4.3	3.6	3.3	3.0
HPI252010-1R0M	1.0	20	49.0	65.0	3.55	3.2	2.8	2.52
HPI252010-1R5M	1.5	20	76.0	95.0	2.9	2.4	2.2	1.98
HPI252010-2R2M	2.2	20	110	121	2.4	2.1	1.8	1.62
HPI252012-R22M	0.22	20	12.0	15.0	8.5	7.0	7.3	6.2
HPI252012-R33M	0.33	20	15.0	17.0	5.8	5.22	5.5	4.95
HPI252012-R47M	0.47	20	23.0	28.0	5.0	4.5	4.5	4.0
HPI252012-R68M	0.68	20	34.0	40.0	4.3	3.7	3.8	3.3
HPI252012-1R0M	1.0	20	42.0	55.0	3.8	3.3	3.1	2.7
HPI252012-1R5M	1.5	20	61.0	70.0	2.9	2.61	2.7	2.43
HPI252012-2R2M	2.2	20	92.0	105	2.5	2.2	2.3	2.0

If you require another part number please contact with us.

Note 1: Referenced ambient temperature 20℃.

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℃

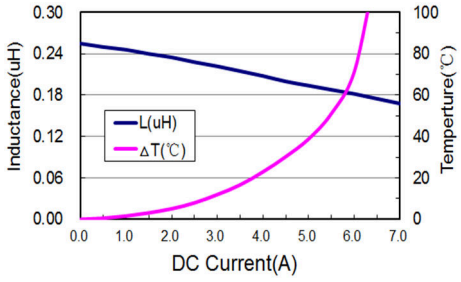
I rms (Max) : DC current（A）that will cause an ΔT of 40℃ Max

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

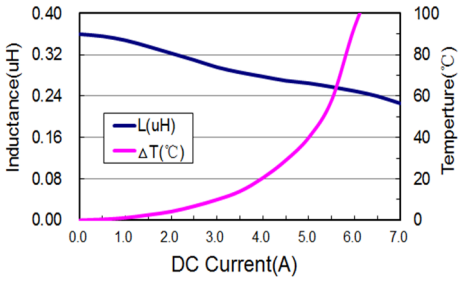
Note 5: The rated current as listed is either the saturation current or the heating current depending on which value is lower.

Typical performance curves :

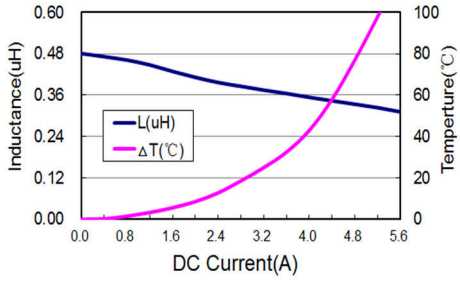
HPI201610-R24M



HPI201610-R33M



HPI201610-R47M



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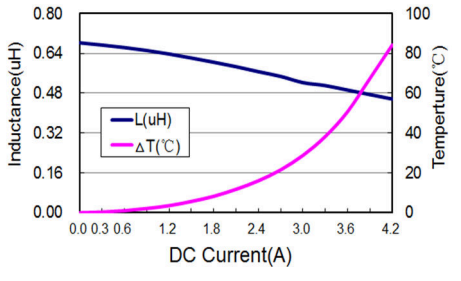
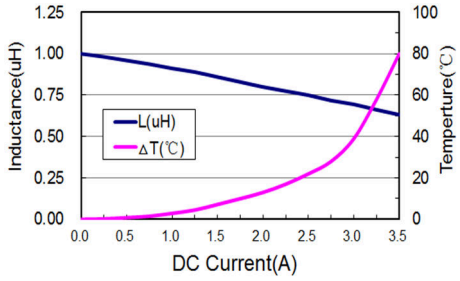
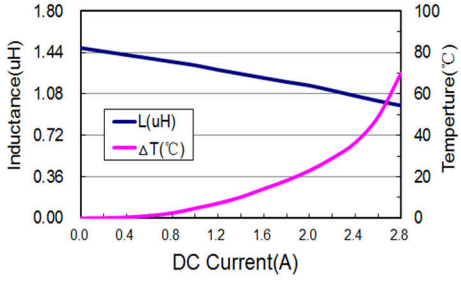


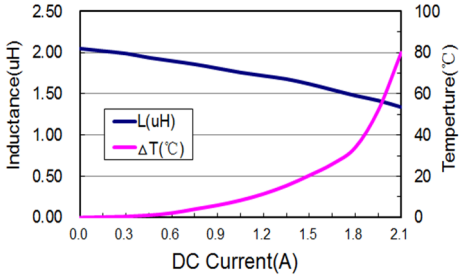
HPI201610-1R0M



HPI201610-1R5M



HPI201610-2R2M



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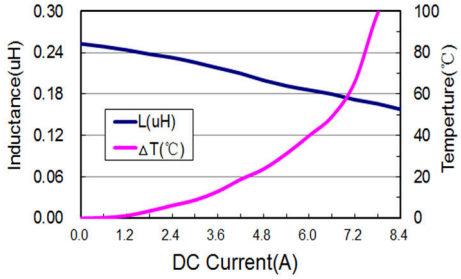

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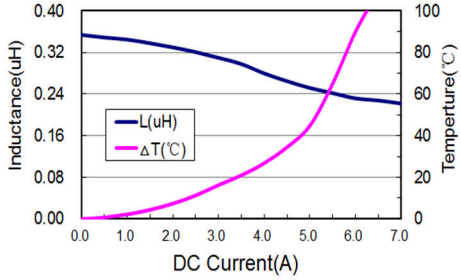

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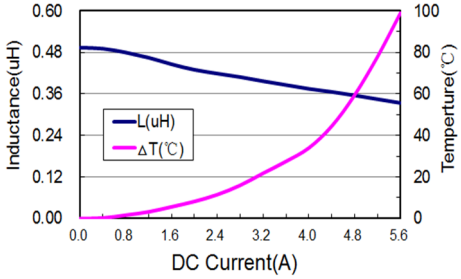

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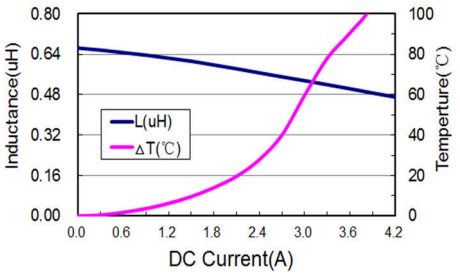

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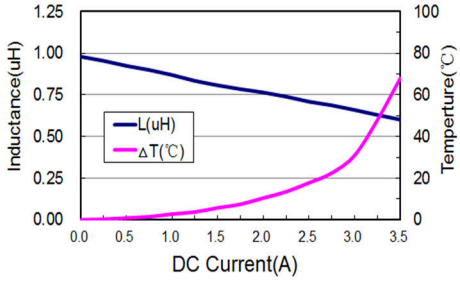

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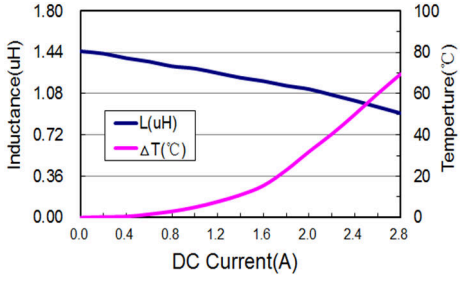
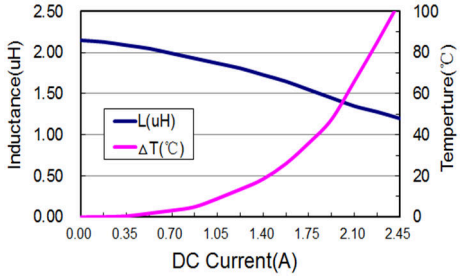
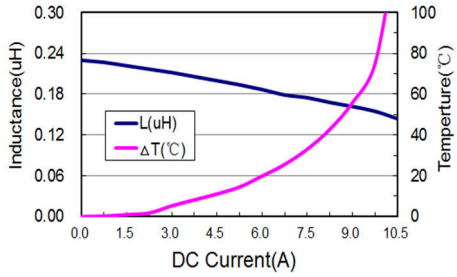


HPI201612-2R2M



Typical performance curves :

HPI252010-R22M



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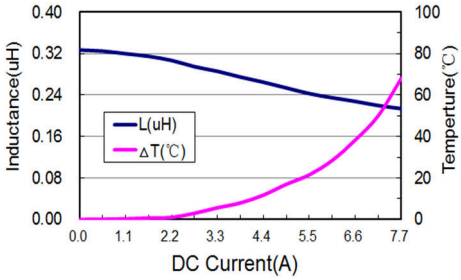

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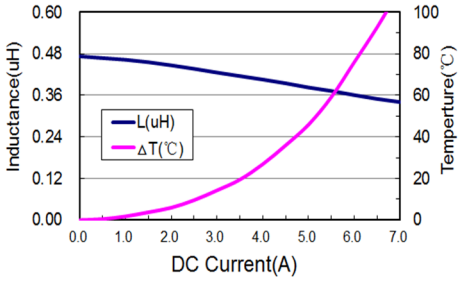

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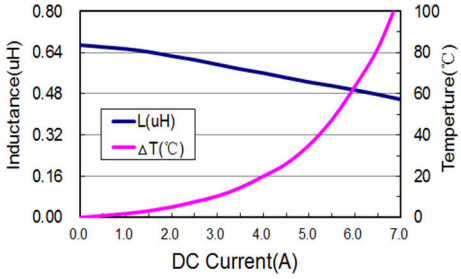

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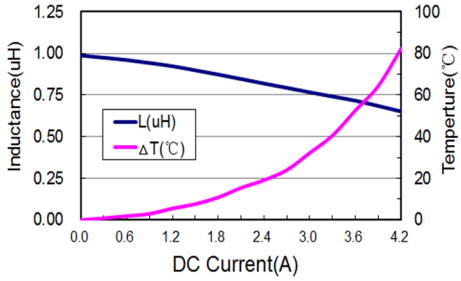

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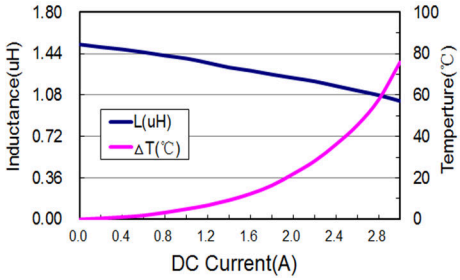

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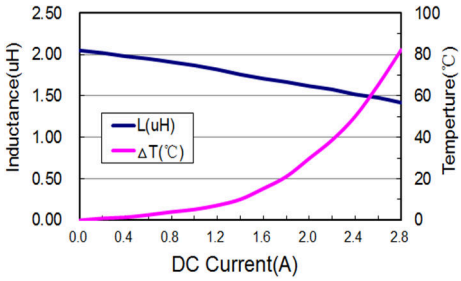

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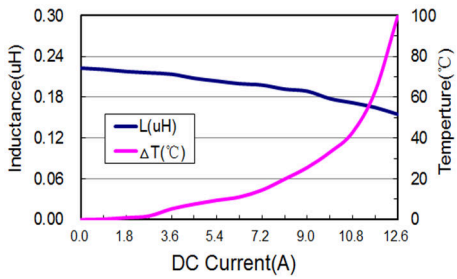

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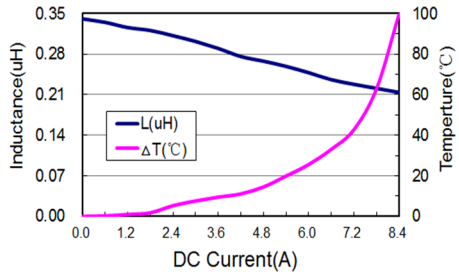
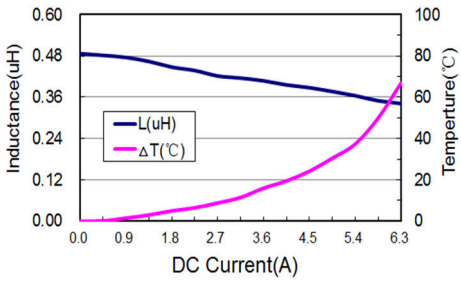
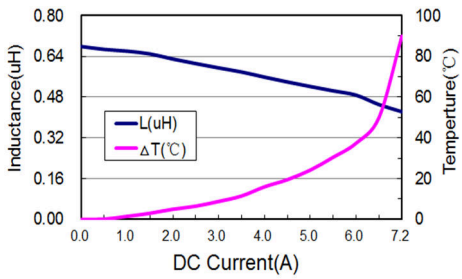


HPI252012-R47M



HPI252012-R68M



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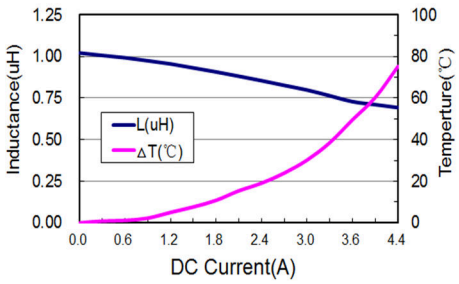

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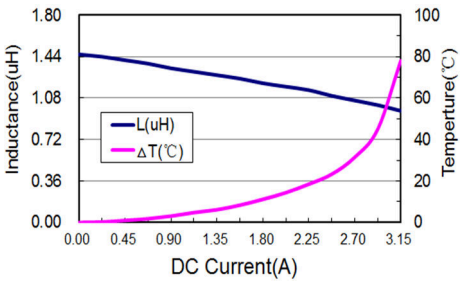

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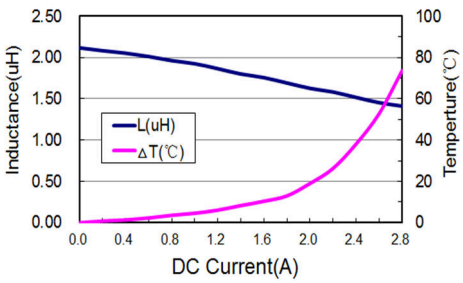

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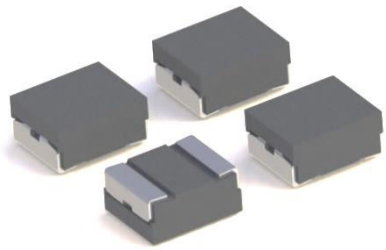
HPI2016/2520 P SERIES

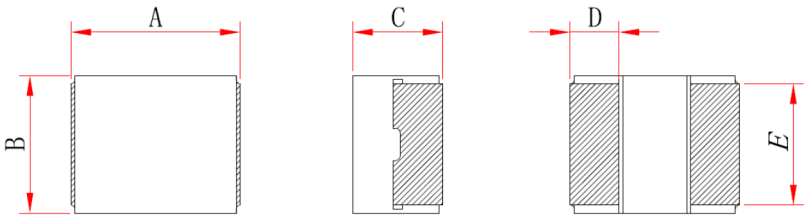
HIGH POWER INDUCTOR



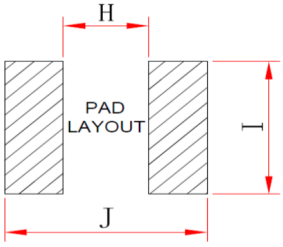
Applications:

. 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



Recommend Land Pattern Dimensions



Item	A	B	C	D	E	H	I	J
HPI201610P	2.0±0.2	1.6±0.2	1.0 Max	0.5±0.2	1.44	0.9	1.6	2.3
HPI201612P	2.0±0.2	1.6±0.2	1.2 Max	0.5±0.2	1.44	0.9	1.6	2.3
HPI252010P	2.5±0.2	2.0±0.2	1.0 Max	0.6±0.2	1.84	1.2	2.0	2.8
HPI252012P	2.5±0.2	2.0±0.2	1.2 Max	0.6±0.2	1.84	1.2	2.0	2.8

Features :

. High performance (I sat) realized by metal dust core.
. Low profile: 2.0mm x 1.6mm x 1.0mm
2.0mm x 1.6mm x 1.2mm
2.5mm x 2.0mm x 1.0mm
2.5mm x 2.0mm x 1.2mm
. Low loss realized with low DCR
. Magnetically Shielded.
. RoHS compliant.

Product Identification:

HPI 201610 P – 1R0 M
(1) (2) (3) (4) (5)

(1) Series :**H**igh **P**ower **I**nductors.
(2) Dimensions :**201610** is size.
(3) Special code: Extra low DCR
(4) Inductance: **1R0** for 1.0uH.
(5) 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℃

Test equipments :

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

● HPI2016/2520 P series

Part No.	Inductance L (uH)	Tolerance (±%)	DCR (mΩ)		I sat (A)		I rms (A)	
			Typ	Max	Typ	Max	Typ	Max
HPI201610P-R24M	0.24	20	17.0	20.5	6.0	5.4	4.7	4.2
HPI201610P-R33M	0.33	20	25.0	30.0	5.2	4.7	4.1	3.6
HPI201610P-R47M	0.47	20	32.0	38.0	5.0	4.4	3.8	3.3
HPI201610P-R68M	0.68	20	42.0	48.0	4.0	3.6	3.2	2.7
HPI201610P-1R0M	1.0	20	60.0	68.0	2.9	2.4	2.6	2.3
HPI201610P-1R5M	1.5	20	100	116	2.4	1.8	2.1	1.8
HPI201610P-2R2M	2.2	20	147	163	1.9	1.6	1.8	1.6
HPI201612P-R24M	0.24	20	15.0	19.0	6.5	5.6	5.2	4.4
HPI201612P-R33M	0.33	20	22.0	26.0	5.4	4.6	4.6	3.9
HPI201612P-R47M	0.47	20	25.0	30.0	4.5	3.8	4.0	3.4
HPI201612P-R68M	0.68	20	36.0	44.0	3.8	3.2	3.5	3.0
HPI201612P-1R0M	1.0	20	50.0	60.0	2.9	2.5	3.0	2.5
HPI201612P-1R5M	1.5	20	86.0	104	2.3	2.0	2.2	2.0
HPI201612P-2R2M	2.2	20	120	144	2.0	1.65	1.8	1.6
HPI252010P-R22M	0.22	20	15.0	17.0	8.5	7.0	6.5	5.5
HPI252010P-R33M	0.33	20	16.5	20.0	6.5	5.8	5.5	4.8
HPI252010P-R47M	0.47	20	23.0	29.0	5.5	5.0	4.1	3.6
HPI252010P-R68M	0.68	20	36.0	44.0	4.6	4.1	3.6	3.1
HPI252010P-1R0M	1.0	20	44.0	53.0	4.0	3.6	3.4	3.0
HPI252010P-1R5M	1.5	20	61.0	70.0	3.0	2.5	2.8	2.4
HPI252010P-2R2M	2.2	20	90.0	105	2.6	2.2	2.0	1.8
HPI252012P-R22M	0.22	20	11.0	13.0	8.5	7.0	10.0	8.0
HPI252012P-R33M	0.33	20	15.0	16.5	7.0	5.8	5.8	5.2
HPI252012P-R47M	0.47	20	20.0	25.0	6.0	5.0	4.8	4.2
HPI252012P-R68M	0.68	20	30.0	34.0	4.6	4.0	3.9	3.5
HPI252012P-1R0M	1.0	20	38.0	45.0	4.3	3.9	3.7	3.2
HPI252012P-1R5M	1.5	20	53.0	60.0	3.0	2.6	2.9	2.6
HPI252012P-2R2M	2.2	20	78.0	90.0	2.7	2.3	2.4	2.0

If you require another part number please contact with us.

Note 1: Referenced ambient temperature 20℃.

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℃

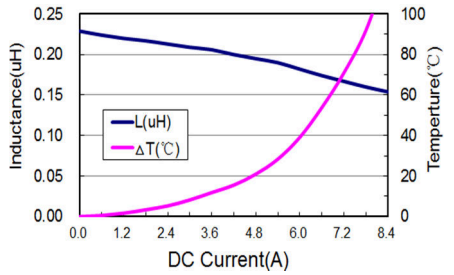
I rms (Max) : DC current（A）that will cause an ΔT of 40℃ Max

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

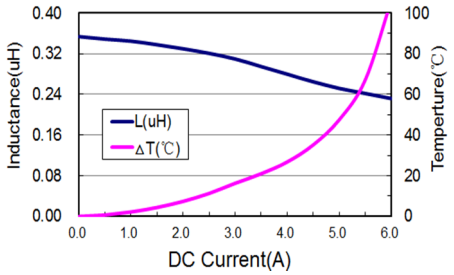
Note 5: The rated current as listed is either the saturation current or the heating current depending on which value is lower.

Typical performance curves :

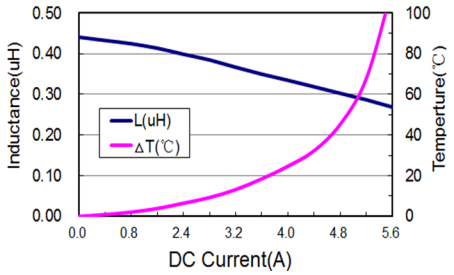
HPI201610P-R24M



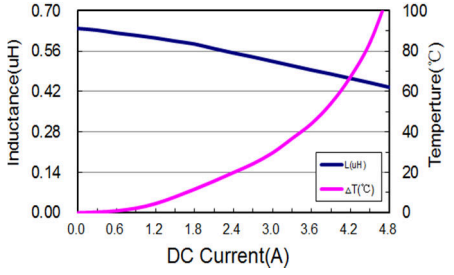
HPI201610P-R33M



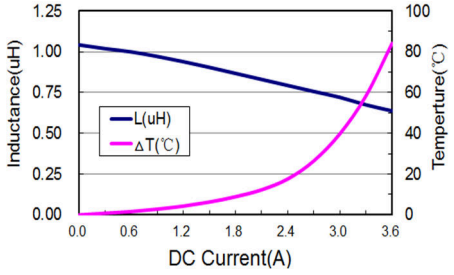
HPI201610P-R47M



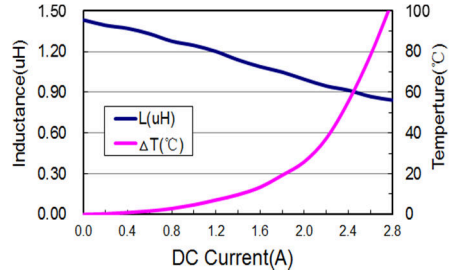
HPI201610P-R68M



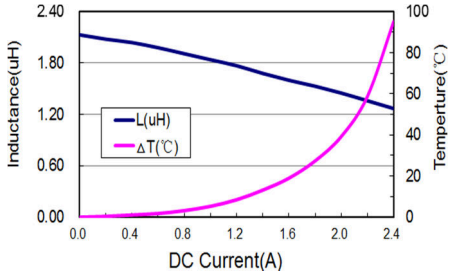
HPI201610P-1R0M



HPI201610P-1R5M



HPI201610P-2R2M



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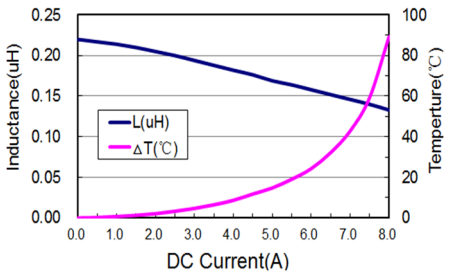
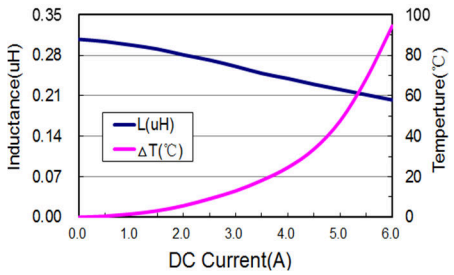


HPI201612P-R33M



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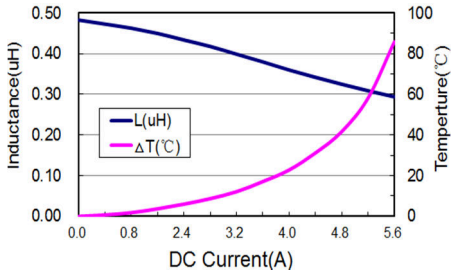
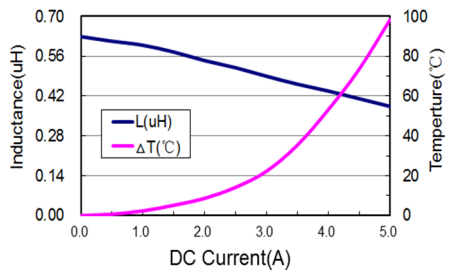
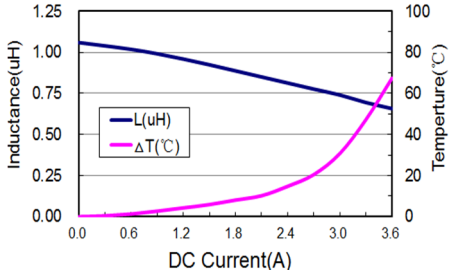


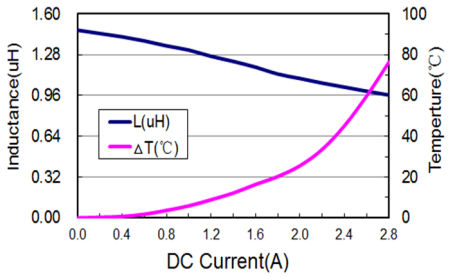
HPI201612P-R68M



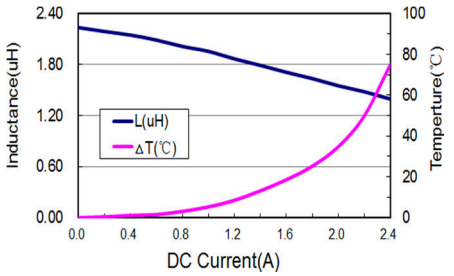
HPI201612P-1R0M



HPI201612P-1R5M

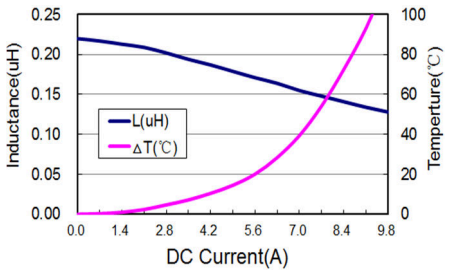


HPI201612P-2R2M



Typical performance curves :

HPI252010P-R22M



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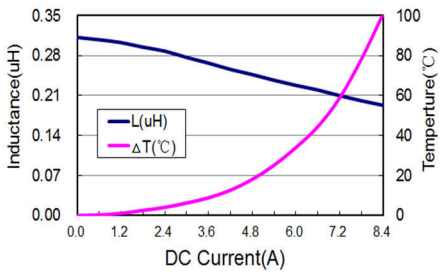
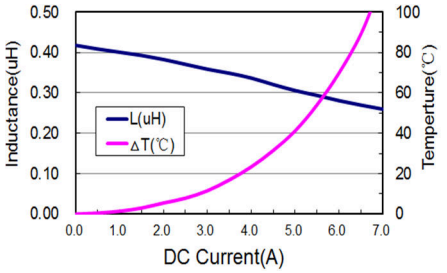
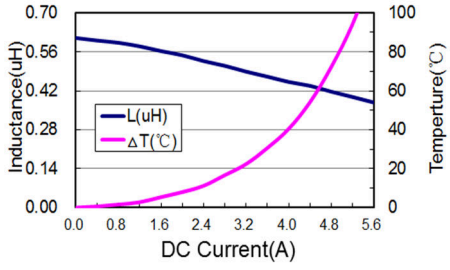


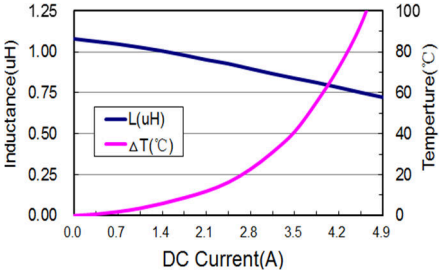
HPI252010P-R47M



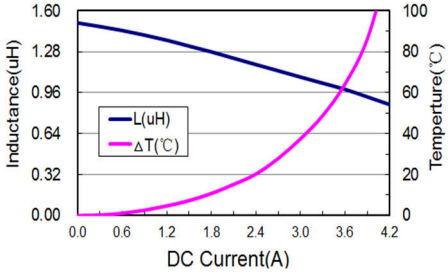
HPI252010P-R68M



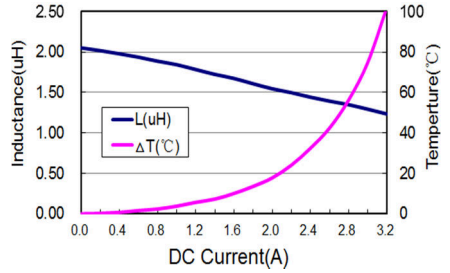
HPI252010P-1R0M



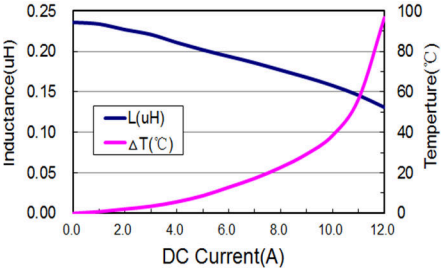
HPI252010P-1R5M



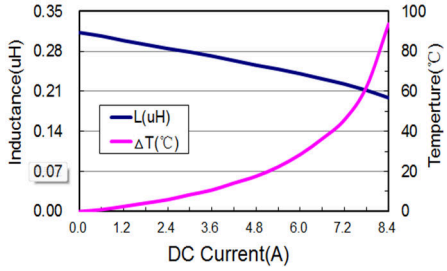
HPI252010P-2R2M



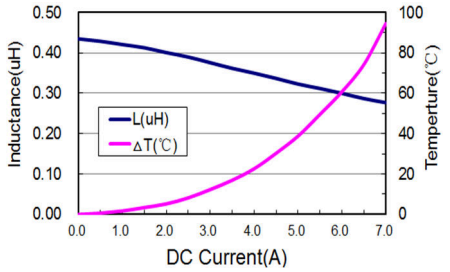
HPI252012P-R22M



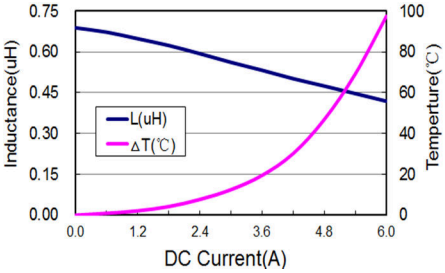
HPI252012P-R33M



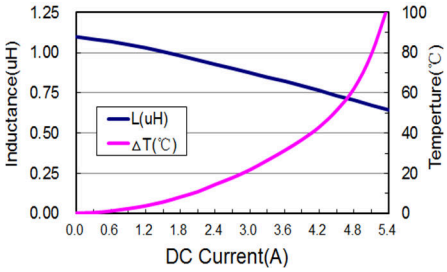
HPI252012P-R47M



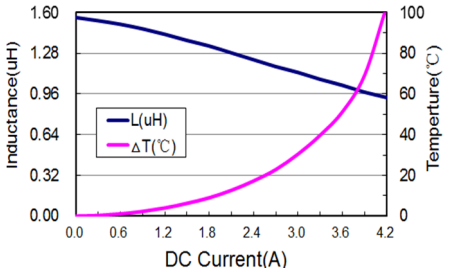
HPI252012P-R68M



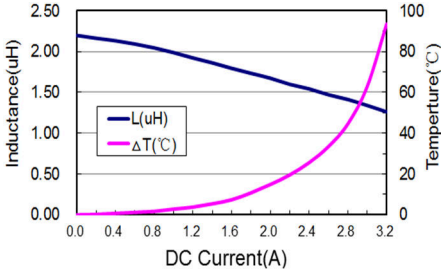
HPI252012P-1R0M



HPI252012P-1R5M



HPI252012P-2R2M



* 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.

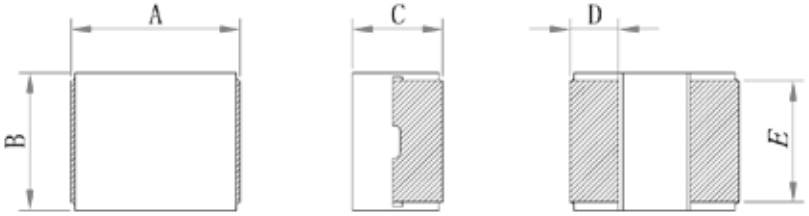
HPI2016/2520 P SERIES

HIGH POWER INDUCTOR

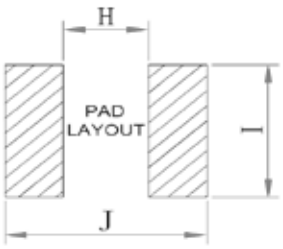
Applications:

- 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



Recommend Land Pattern Dimensions



Item	A	B	C	D	E	H	I	J
HPI201610P	2.0±0.2	1.6±0.2	1.0 Max	0.5±0.2	1.44	0.9	1.6	2.3
HPI201612P	2.0±0.2	1.6±0.2	1.2 Max	0.5±0.2	1.44	0.9	1.6	2.3
HPI252010P	2.5±0.2	2.0±0.2	1.0 Max	0.6±0.2	1.84	1.2	2.0	2.8
HPI252012P	2.5±0.2	2.0±0.2	1.2 Max	0.6±0.2	1.84	1.2	2.0	2.8

Features :

- High performance (I sat) realized by metal dust core.
- Low profile: 2.0mm x 1.6mm x 1.0mm
  2.0mm x 1.6mm x 1.2mm
  2.5mm x 2.0mm x 1.0mm
  2.5mm x 2.0mm x 1.2mm
- Low loss realized with low DCR
- Magnetically Shielded.
- RoHS compliant.

Product Identification:

HPI 201610 P – 1R0 M

(1) (2) (3) (4) (5)

(1) Series :**H**igh **P**ower **I**nductors.

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

(3) Special code: Extra low DCR

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

(5) 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℃

Test equipments :

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

● HPI2016/2520 P series

Part No.	Inductance L (uH)	Tolerance (±%)	DCR (mΩ)		I sat (A)		I rms (A)	
			Typ	Max	Typ	Max	Typ	Max
HPI201610P-R24M	0.24	20	17.0	20.5	6.0	5.4	4.7	4.2
HPI201610P-R33M	0.33	20	25.0	30.0	5.2	4.7	4.1	3.6
HPI201610P-R47M	0.47	20	32.0	38.0	5.0	4.4	3.8	3.3
HPI201610P-R68M	0.68	20	42.0	48.0	4.0	3.6	3.2	2.7
HPI201610P-1R0M	1.0	20	60.0	68.0	2.9	2.4	2.6	2.3
HPI201610P-1R5M	1.5	20	100	116	2.4	1.8	2.1	1.8
HPI201610P-2R2M	2.2	20	147	163	1.9	1.6	1.8	1.6
HPI201612P-R24M	0.24	20	15.0	19.0	6.5	5.6	5.2	4.4
HPI201612P-R33M	0.33	20	22.0	26.0	5.4	4.6	4.6	3.9
HPI201612P-R47M	0.47	20	25.0	30.0	4.5	3.8	4.0	3.4
HPI201612P-R68M	0.68	20	36.0	44.0	3.8	3.2	3.5	3.0
HPI201612P-1R0M	1.0	20	50.0	60.0	2.9	2.5	3.0	2.5
HPI201612P-1R5M	1.5	20	86.0	104	2.3	2.0	2.2	2.0
HPI201612P-2R2M	2.2	20	120	144	2.0	1.65	1.8	1.6
HPI252010P-R22M	0.22	20	15.0	17.0	8.5	7.0	6.5	5.5
HPI252010P-R33M	0.33	20	16.5	20.0	6.5	5.8	5.5	4.8
HPI252010P-R47M	0.47	20	23.0	29.0	5.5	5.0	4.1	3.6
HPI252010P-R68M	0.68	20	36.0	44.0	4.6	4.1	3.6	3.1
HPI252010P-1R0M	1.0	20	44.0	53.0	4.0	3.6	3.4	3.0
HPI252010P-1R5M	1.5	20	61.0	70.0	3.0	2.5	2.8	2.4
HPI252010P-2R2M	2.2	20	90.0	105	2.6	2.2	2.0	1.8
HPI252012P-R22M	0.22	20	11.0	13.0	8.5	7.0	10.0	8.0
HPI252012P-R33M	0.33	20	15.0	16.5	7.0	5.8	5.8	5.2
HPI252012P-R47M	0.47	20	20.0	25.0	6.0	5.0	4.8	4.2
HPI252012P-R68M	0.68	20	30.0	34.0	4.6	4.0	3.9	3.5
HPI252012P-1R0M	1.0	20	38.0	45.0	4.3	3.9	3.7	3.2
HPI252012P-1R5M	1.5	20	53.0	60.0	3.0	2.6	2.9	2.6
HPI252012P-2R2M	2.2	20	78.0	90.0	2.7	2.3	2.4	2.0

If you require another part number please contact with us.

Note 1: Referenced ambient temperature 20℃.

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℃

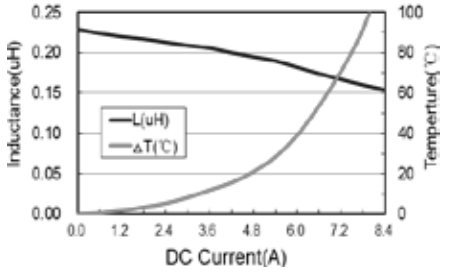
I rms (Max) : DC current（A）that will cause an ΔT of 40℃ Max

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

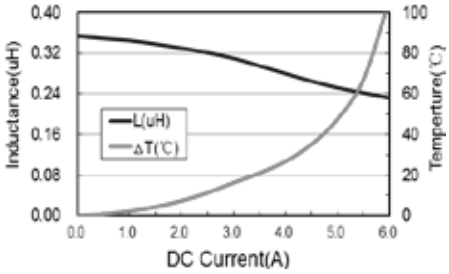
Note 5: The rated current as listed is either the saturation current or the heating current depending on which value is lower.

Typical performance curves :

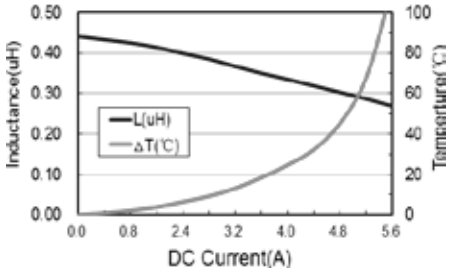
HPI201610P-R24M



HPI201610P-R33M



HPI201610P-R47M



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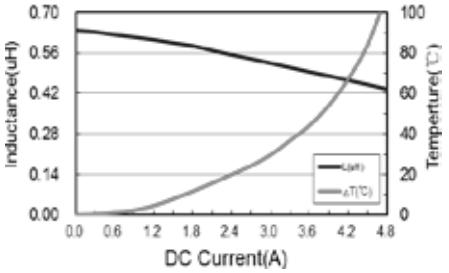
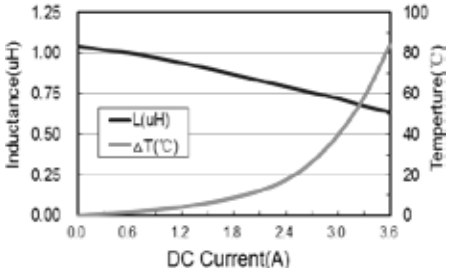
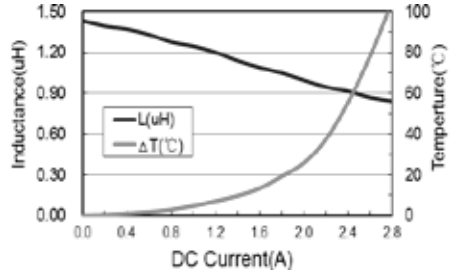


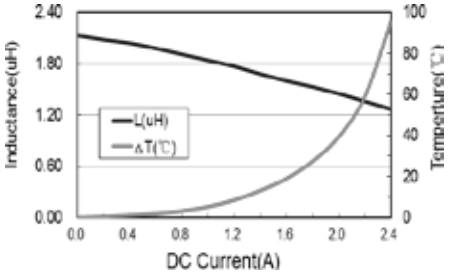
HPI201610P-1R0M



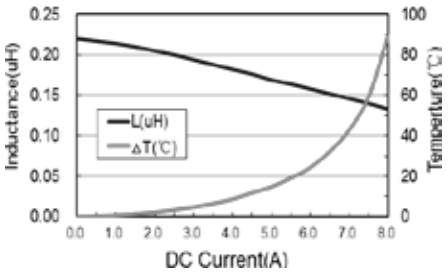
HPI201610P-1R5M



HPI201610P-2R2M



HPI201612P-R24M



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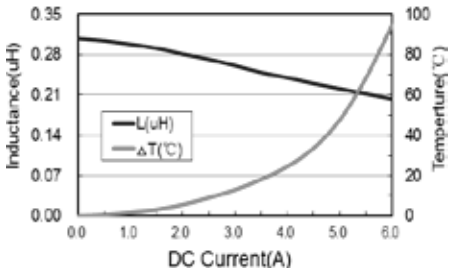

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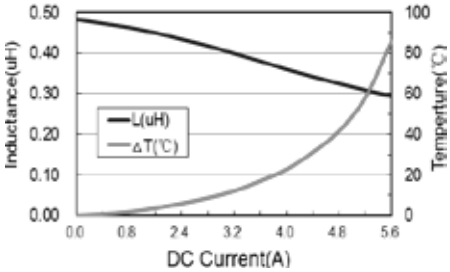

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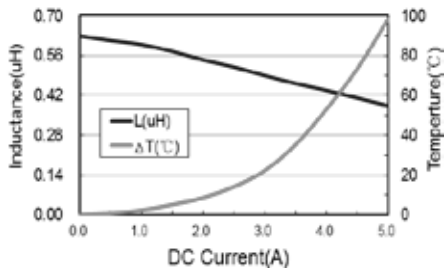
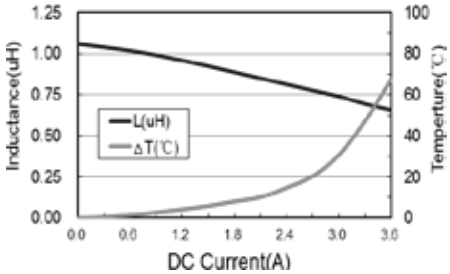
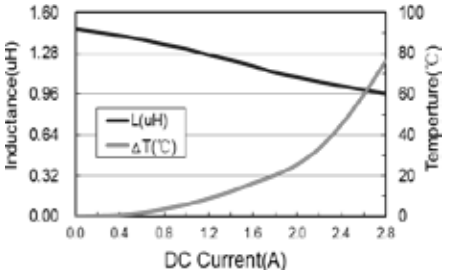


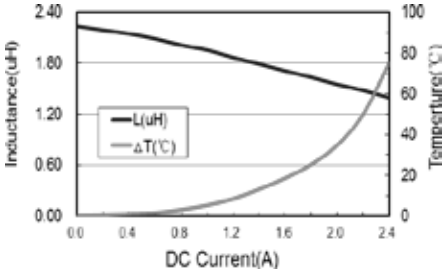
HPI201612P-1R0M



HPI201612P-1R5M

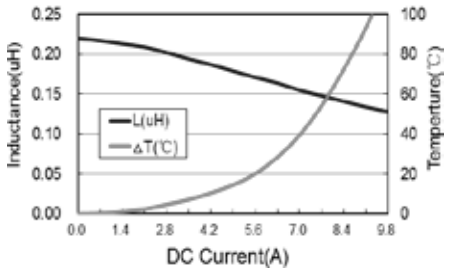


HPI201612P-2R2M



Typical performance curves :

HPI252010P-R22M



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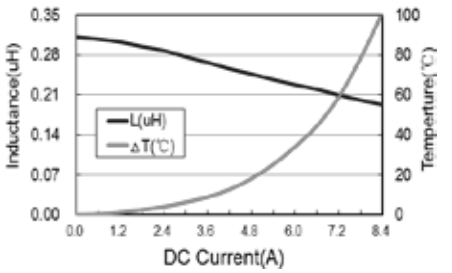

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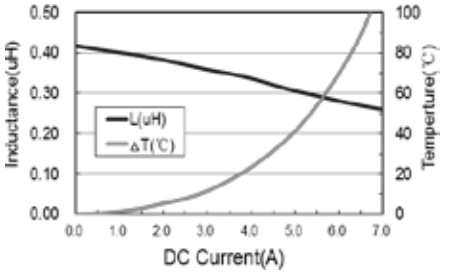
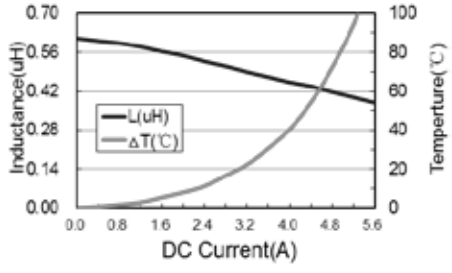
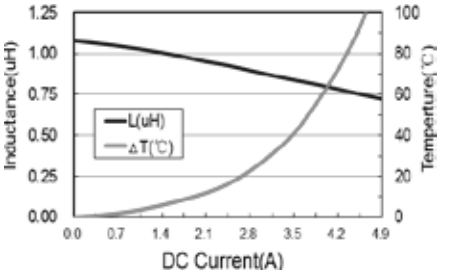


HPI252010P-R68M



HPI252010P-1R0M



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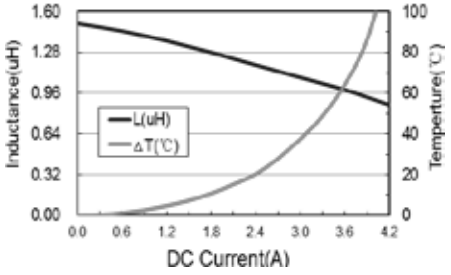
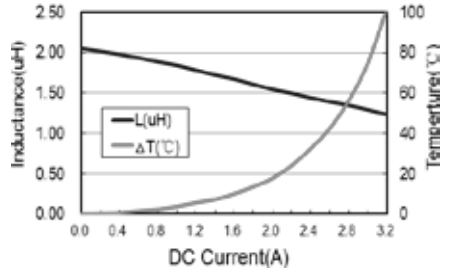
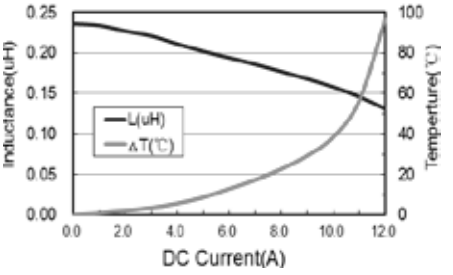


HPI252010P-2R2M



HPI252012P-R22M



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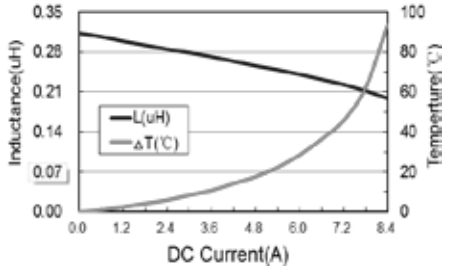

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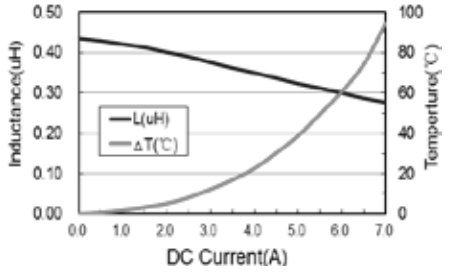

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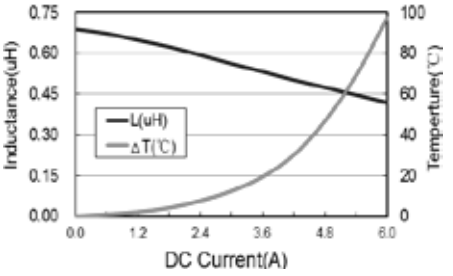

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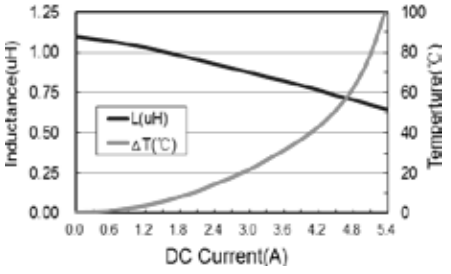

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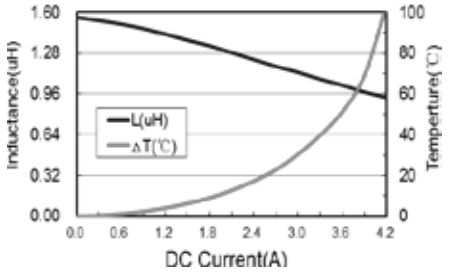

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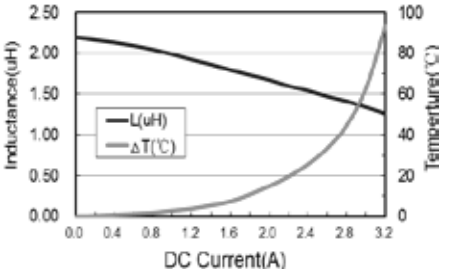

* Due to the limited space, the catalogue shows the typical specifications only. For more specific details (characteristics graph, reliability, and others), kindly invite you to access 3L official website www.3lcoil.com for better known.