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Customized Item AEC-Q200 standard compliance

HF Halogen Free RoHS COMPLIANT

AHPI03 SERIES

HIGH POWER INDUCTOR

Applications:

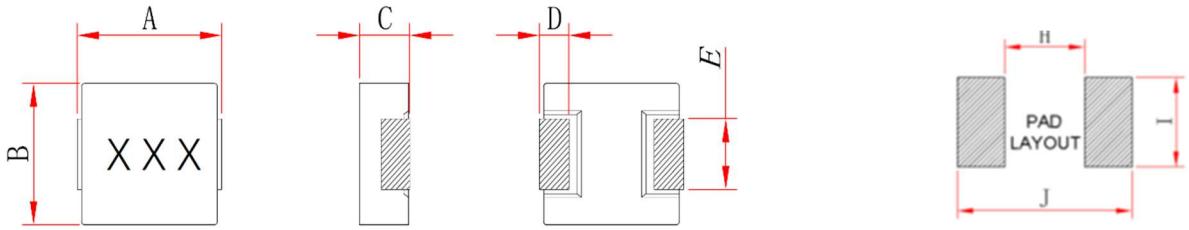
Automotive applications

- DC/DC converters for entertainment / navigation systems
- Noise suppression for motors
  Windshield wipers, Power seats, Power mirrors,
  Heating and ventilation blowers, HID lighting
- LED drivers

Enable 3D View

This is the product 3D document.
Please click "Trust the document" to preview.

Shape and Dimensions(Dimensions are in mm) :



Item	A	B	C	D	E	H	I	J
AHPI0312	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
AHPI0302	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: 3.6mm x 3.2mm x 1.2mm
  3.6mm x 3.2mm x 2.0mm
- Low loss realized with low DCR
- Compliance with RoHS and Halogen Free
- AEC-Q200 qualified

Product Identification:

AHPI 0312 – 1R0 M
(1) (2) (3) (4)

(1) Product Symbol
(2) Dimensions Code
(3) Inductance: **1R0** for 1.0uH
(4) 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 155℃

Measurement equipment :

- L: Agilent E4980 Precision LCR Meter
  (Upgraded version of Agilent HP4284A)
  with HP42841A Current Source
- DCR:Chroma16502 Milliohm Meter
- IWT test: Chroma 19301(A).(Impulse winding test)

● AHPI0312 Series

Part No.	Inductance L0 (uH)	DCR(mΩ)		Isat(A)		Irms(A)		E(mm) ±0.2
		Typ.	Max.	Typ.	Max.	Typ.	Max.	
AHPI0312-R33M	0.33	16.0	18.0	9.0	7.0	7.0	6.0	1.3
AHPI0312-1R0M	1.0	38.0	45.0	4.8	4.0	3.5	3.0	1.3
AHPI0312-1R5M	1.5	63.0	75.0	3.6	3.2	3.0	2.5	1.3
AHPI0312-2R2M	2.2	82.0	102.0	2.8	2.4	2.2	2.0	1.3
AHPI0312-3R3M	3.3	135.0	160.0	2.5	2.0	2.0	1.8	1.3
AHPI0312-4R7M	4.7	150.0	180.0	2.2	1.8	1.6	1.4	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

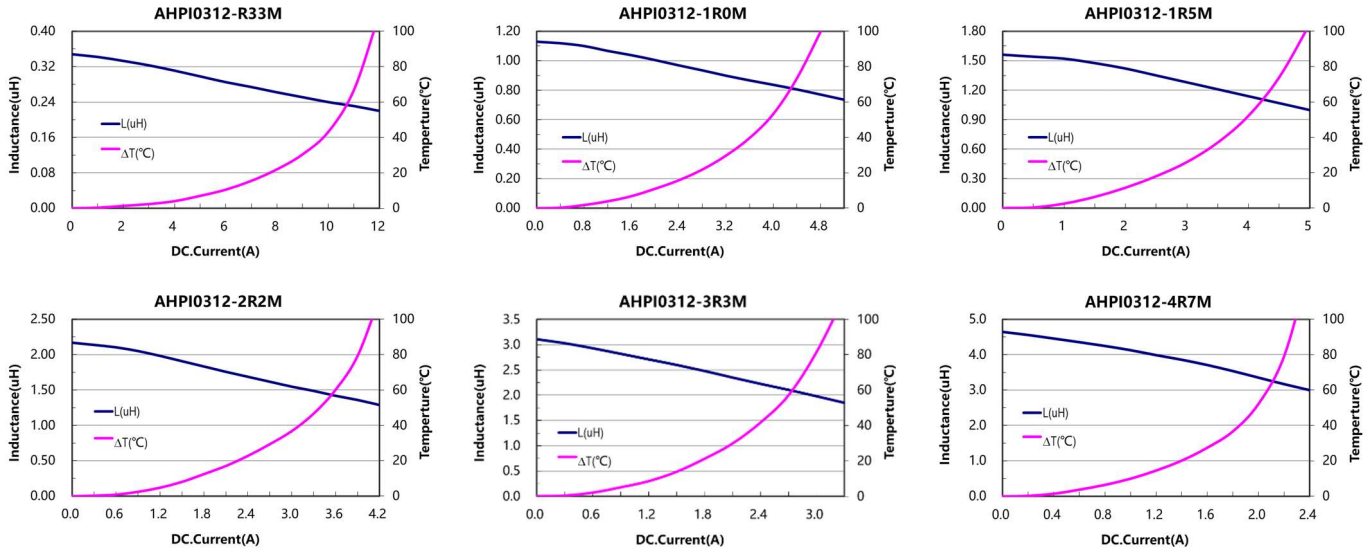
Irms (Typ): DC current（A）that will cause an approximate ΔT of 40℃

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:



● AHPI0302 Series

Part No.	Inductance L0 (uH)	DCR(mΩ)		Isat(A)		Irms(A)		E(mm) ±0.2
		Typ.	Max.	Typ.	Max.	Typ.	Max.	
AHPI0302-1R0M	1.0	26.0	32.0	5.5	5.0	4.2	3.8	1.3
AHPI0302-1R5M	1.5	36.0	45.0	4.8	4.2	3.6	3.2	1.3
AHPI0302-2R2M	2.2	60.0	72.0	4.0	3.5	3.0	2.5	1.3
AHPI0302-3R3M	3.3	81.0	100.0	3.2	2.8	2.4	2.0	1.3
AHPI0302-4R7M	4.7	118.0	140.0	2.6	2.2	2.0	1.6	1.3
AHPI0302-6R8M	6.8	152.0	180.0	2.2	1.8	1.4	1.0	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

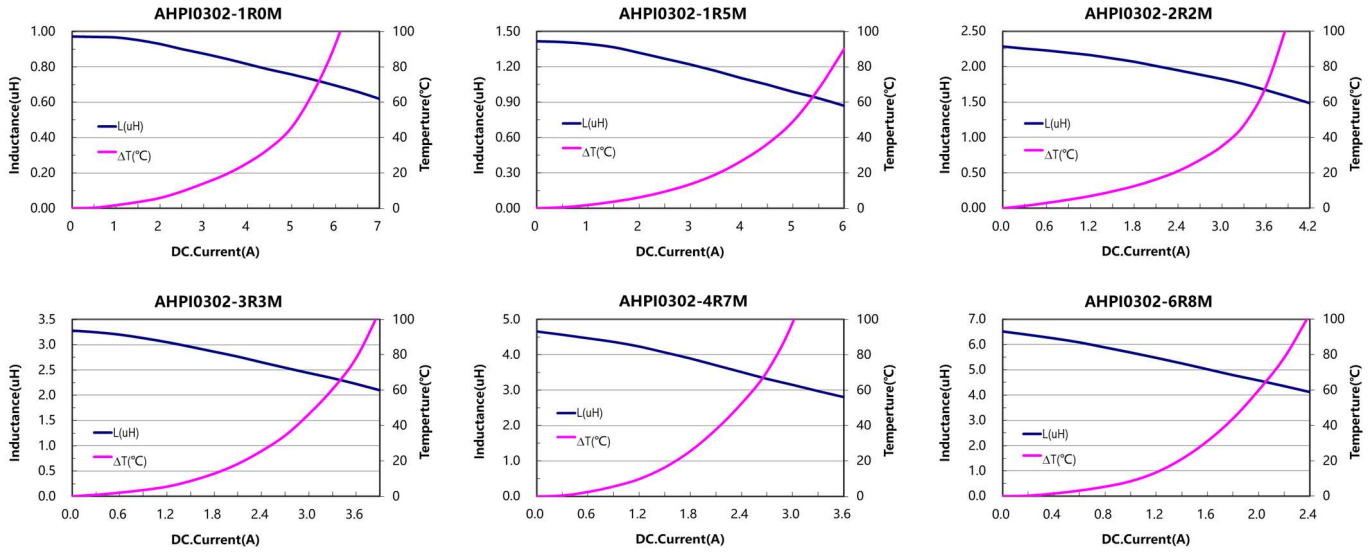
Irms (Typ): DC current（A）that will cause an approximate ΔT of 40℃

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:



* 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.

Customized Item AEC-Q200 standard compliance

HF Halogen Free RoHS COMPLIANT

AHPI04 SERIES

HIGH POWER INDUCTOR

Applications:

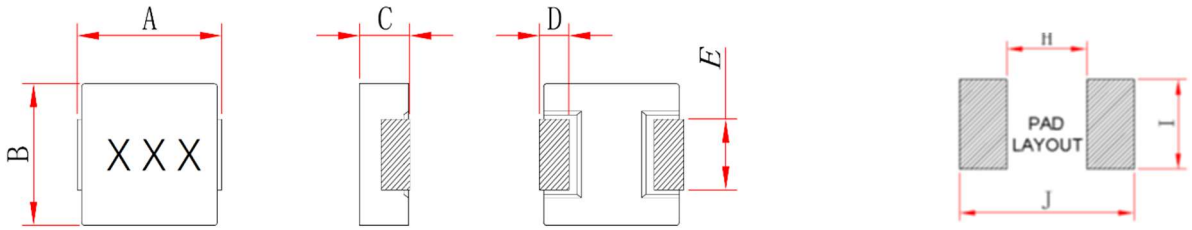
Automotive applications

- DC/DC converters for entertainment / navigation systems
- Noise suppression for motors
  Windshield wipers, Power seats, Power mirrors,
  Heating and ventilation blowers, HID lighting
- LED drivers

Enable 3D View

This is the product 3D document.
Please click "Trust the document" to preview.

Shape and Dimensions(Dimensions are in mm) :



Item	A	B	C	D	E	H	I	J
AHPI0412	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
AHPI0402	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: 4.6mm x 4.2mm x 1. 2mm
  4.6mm x 4.2mm x 2. 0mm
- Low loss realized with low DCR
- Compliance with RoHS and Halogen Free
- AEC-Q200 qualified

Product Identification:

AHPI 0412 – 1R0 M
(1) (2) (3) (4)

(1) Product Symbol
(2) Dimensions Code
(3) Inductance: **1R0** for 1.0uH
(4) 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 155℃

Measurement equipment :

- L: Agilent E4980 Precision LCR Meter
  (Upgraded version of Agilent HP4284A)
  with HP42841A Current Source
- DCR:Chroma16502 Milliohm Meter
- IWT test: Chroma 19301(A).(Impulse winding test)

● AHPI0412 Series

Part No.	Inductance L0 (uH)	DCR(mΩ)		Isat(A)		Irms(A)		E(mm) ±0.3
		Typ.	Max.	Typ.	Max.	Typ.	Max.	
AHPI0412-R22M	0.22	9.0	11.0	12.0	10.0	9.0	7.5	2.0
AHPI0412-1R0M	1.0	36.0	43.0	6.5	5.5	4.5	4.0	2.0
AHPI0412-2R2M	2.2	72.0	80.0	3.5	3.0	3.5	2.8	2.0
AHPI0412-4R7M	4.7	130.0	145.0	2.5	2.0	2.0	1.6	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: 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

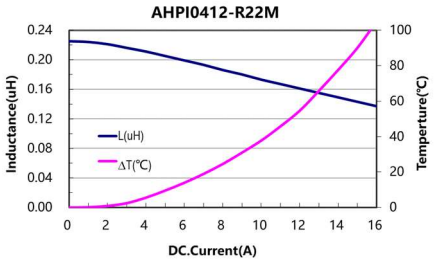
Irms (Typ): DC current（A）that will cause an approximate ΔT of 40℃

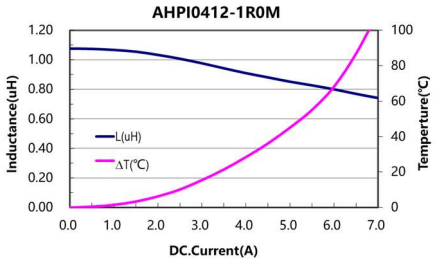
Irms (Max): DC current（A）that will cause an ΔT of 40℃ Max

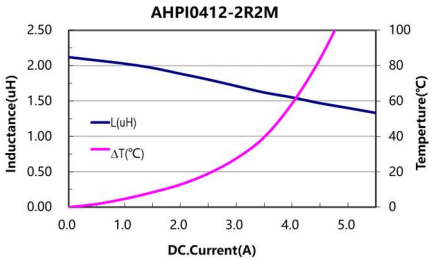
Note 4: Operating temperature range includes self-temperature rise.

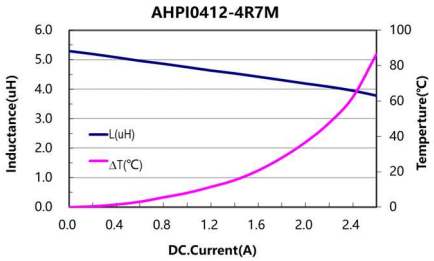
Note 5: The rated current as listed is either the saturation current or the heating current depending on which value is lower.

Typical Performance curves:









● AHPI0402 Series

Part No.	Inductance L0 (uH)	DCR(mΩ)		Isat(A)		Irms(A)		E(mm) ±0.3
		Typ.	Max.	Typ.	Max.	Typ.	Max.	
AHPI0402-R47M	0.47	12.0	14.0	11.0	10.0	8.5	7.5	2.0
AHPI0402-1R0M	1.0	15.0	16.0	7.5	6.0	6.5	5.5	2.0
AHPI0402-2R2M	2.2	32.0	38.0	5.0	4.2	4.0	3.5	2.0
AHPI0402-4R7M	4.7	60.0	70.0	4.0	3.4	2.5	2.1	2.0
AHPI0402-6R8M	6.8	99.0	120.0	2.5	2.2	2.0	1.6	2.0
AHPI0402-100M	10.0	150.0	190.0	2.2	2.0	1.4	1.2	2.0
AHPI0402-150M	15.0	250.0	290.0	1.8	1.5	1.3	1.0	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: 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

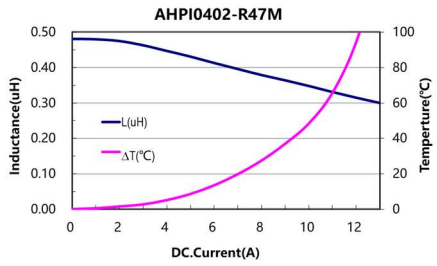
Irms (Typ): DC current（A）that will cause an approximate ΔT of 40℃

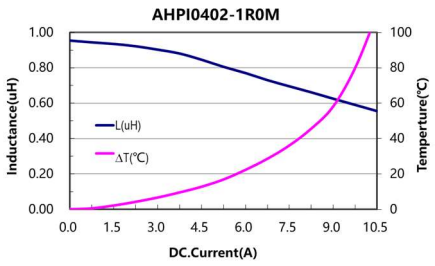
Irms (Max): DC current（A）that will cause an ΔT of 40℃ Max

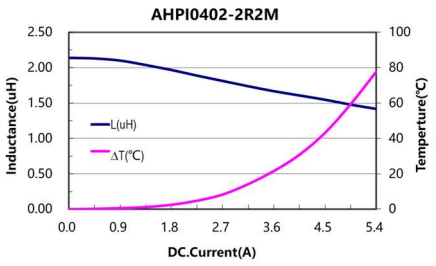
Note 4: Operating temperature range includes self-temperature rise.

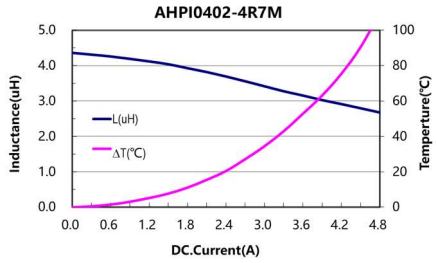
Note 5: The rated current as listed is either the saturation current or the heating current depending on which value is lower.

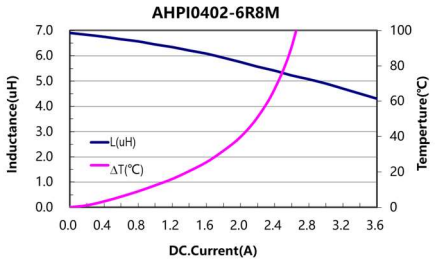
Typical Performance curves:

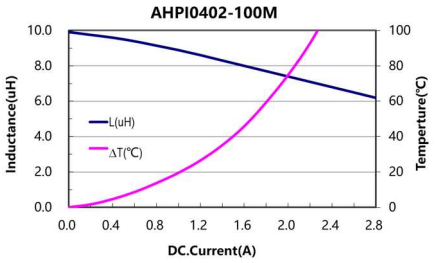


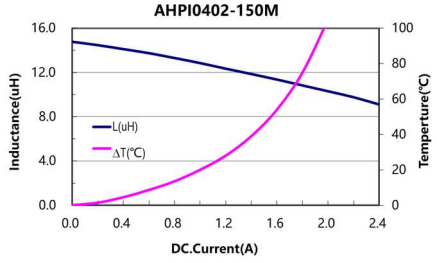












* Due to the limited space, the catalogue shows the typical specifications only. For more specific details (characteristics graph, reliability, and others), kindly invite you to access 3L official website www.3lcoil.com for better known.