Power Inductor

AHP4012HF-SERIES

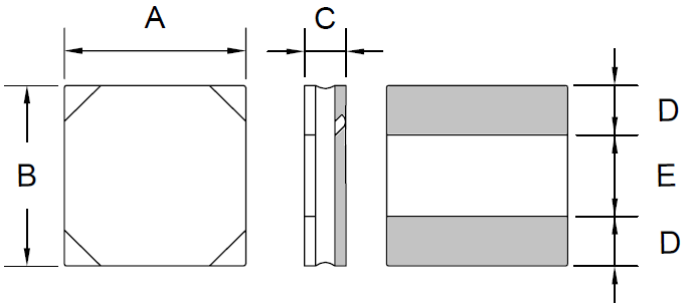
1. Features

1. This specification applies Low Profile Power Inductors.
2. 100% Lead(Pb) & Halogen-Free and RoHS compliant.

Halogen-free

Pb-free

2. Dimension



Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
AHP4012HF	4.0±0.2	4.0±0.2	1.2 max.	1.2 ref.	1.6 ref.

Units: mm

3. Part Numbering

AHP	4012	HF	-	1R0	M
A	B	C		D	E

A: Series
B: Dimension
C: Lead Free
D: Inductance 1R0=1.0uH
E: Inductance Tolerance M=±20%

4. Specification

TAI-TECH Part Number	Inductance (uH)	Tolerance (%)	Test Frequency (Hz)	DCR (Ω) typ.	DCR (Ω) Max.	I sat (A)typ.	I sat (A)Max.	I rms (A)typ.	I rms (A)Max.
AHP4012HF-R47M	0.47	±20%	1V100K	0.028	0.033	10.00	8.00	6.00	5.00
AHP4012HF-R68M	0.68	±20%	1V100K	0.036	0.043	8.00	7.00	5.00	4.00
AHP4012HF-1R0M	1.0	±20%	1V100K	0.040	0.050	6.50	5.50	3.80	3.50
AHP4012HF-1R5M	1.5	±20%	1V100K	0.050	0.060	5.60	4.70	3.70	3.30
AHP4012HF-2R2M	2.2	±20%	1V100K	0.065	0.078	4.50	4.00	3.40	3.00
AHP4012HF-3R3M	3.3	±20%	1V100K	0.100	0.120	4.00	3.30	2.80	2.50
AHP4012HF-4R7M	4.7	±20%	1V100K	0.125	0.145	3.00	2.70	2.30	2.00
AHP4012HF-6R8M	6.8	±20%	1V100K	0.150	0.180	2.20	1.90	2.10	1.80
AHP4012HF-100M	10.0	±20%	1V100K	0.280	0.330	2.00	1.70	1.60	1.40

Note:

Isat：Based on inductance change （△L/L0：≦30%）@ ambient temp. 25℃

Irms：Based on temperature rise （△T：40℃.）Max

Measurement board data

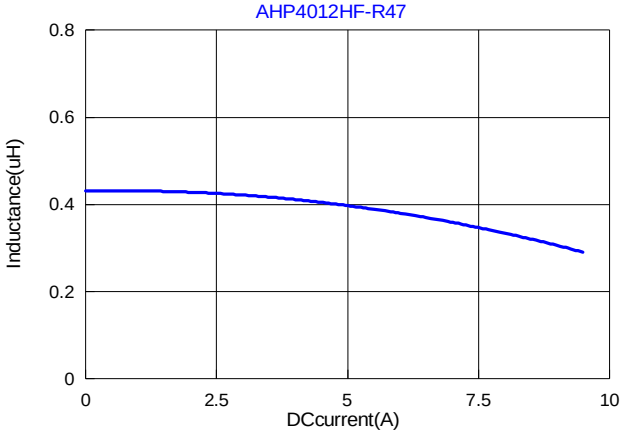
Material : FR4

Board dimensions : 100 X 50 X 1.6t mm

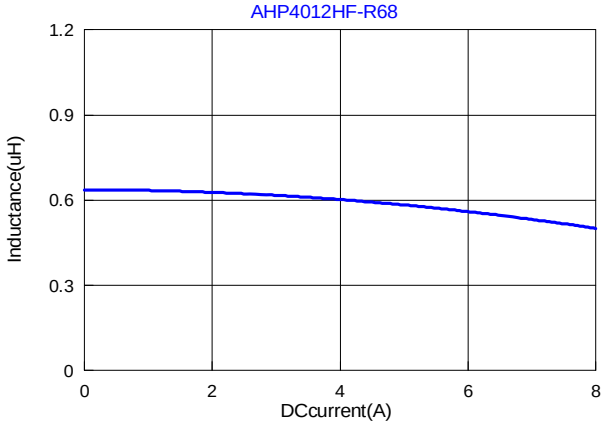
Pattern dimensions: 45 X 30 mm (Double side board)

Pattern thickness : 50 μm

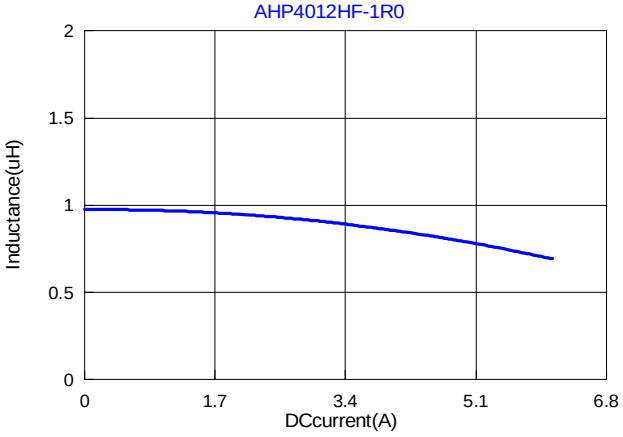
AHP4012HF-R47



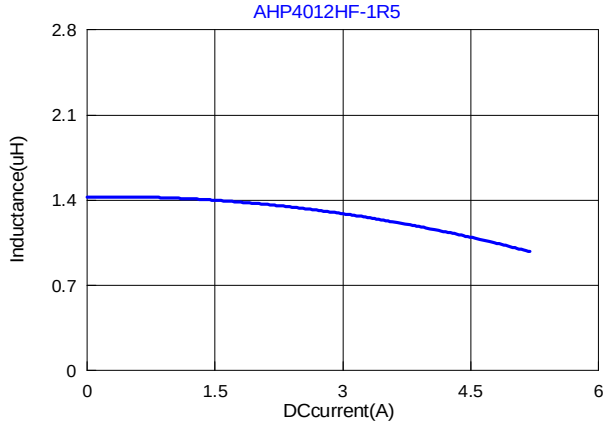
AHP4012HF-R68



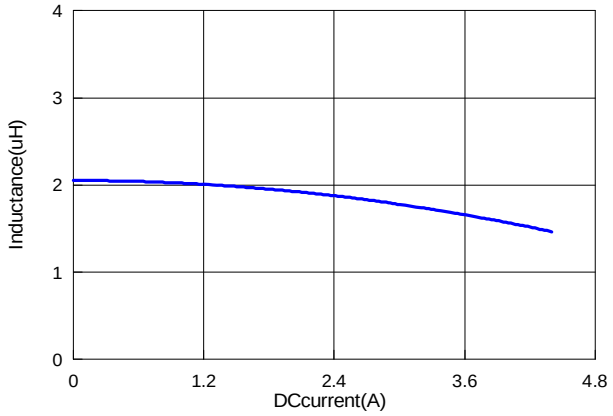
AHP4012HF-1R0



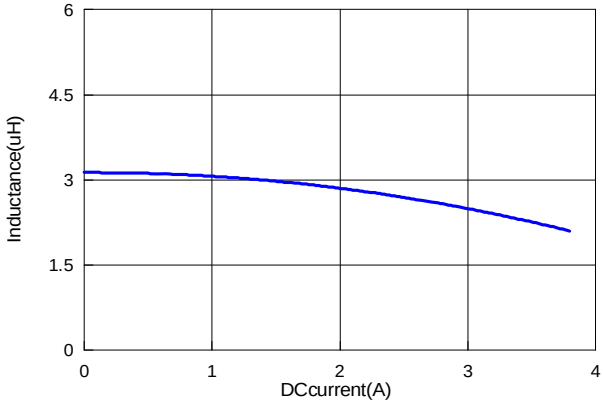
AHP4012HF-1R5



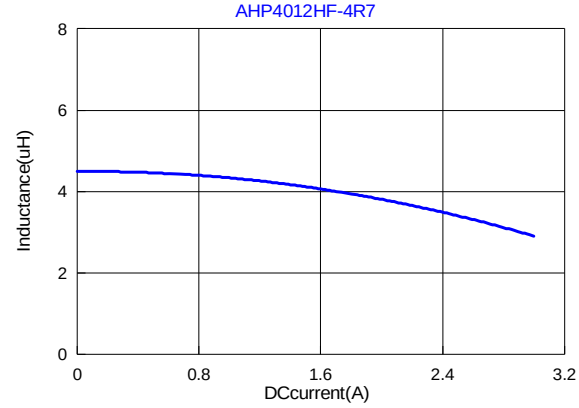
AHP4012HF-2R2



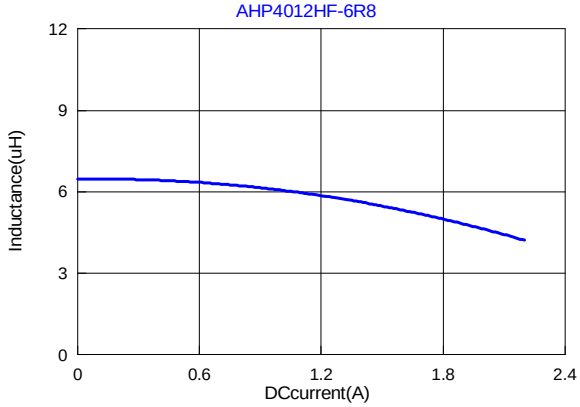
AHP4012HF-3R3



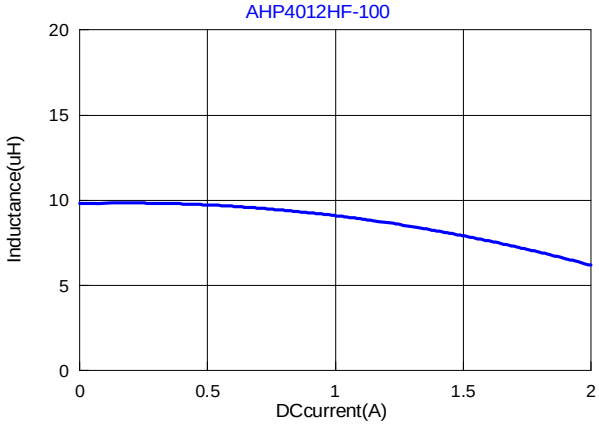
AHP4012HF-4R7



AHP4012HF-6R8



AHP4012HF-100



Power Inductor

AHP201610FA-SERIES

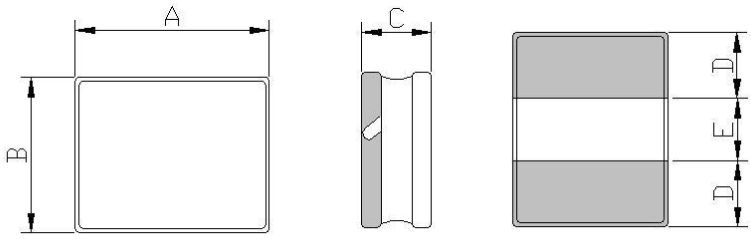
1. Features

1. This specification applies Low Profile Power Inductors.
2. 100% Lead(Pb) & Halogen-Free and RoHS compliant.

Halogen-free

Pb-free

2. Dimension



Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
AHP201610FA	2.0 -0.1/+0.2	1.6 -0.1/+0.2	1.0Max	0.50 ref.	1.00 ref.

Units: mm

3. Part Numbering

AHP	201610	FA	-	R24	M
A	B	C		D	E

A: Series
B: Dimension
C: Lead Free Material
D: Inductance R24=0.24uH
E: Inductance Tolerance M=±20%

4. Specification

TAI-TECH Part Number	Inductance (uH)	Tolerance (%)	Test Frequency (Hz)	DCR (Ω) typ.	DCR (Ω) Max.	I sat (A) typ.	I sat (A) Max.	I rms (A) typ	I rms (A) MAX
AHP201610FA-R24M	0.24	±20	1V/1M	0.015	0.020	7.50	6.50	5.70 (1) 6.50 (2)	5.10 (1) 5.50 (2)
AHP201610FA-R33M	0.33	±20	1V/1M	0.018	0.023	5.50	5.00	5.50 (1) 5.60 (2)	5.00 (1) 5.20 (2)
AHP201610FA-R47M	0.47	±20	1V/1M	0.024	0.029	5.20	4.50	4.70 (1) 5.30 (2)	4.30 (1) 4.70 (2)
AHP201610FA-R68M	0.68	±20	1V/1M	0.036	0.044	5.10	4.40	3.90 (1) 4.20 (2)	3.50 (1) 3.80 (2)
AHP201610FA-1R0M	1.0	±20	1V/1M	0.050	0.060	4.50	4.00	3.20 (1) 3.40 (2)	2.90 (1) 3.10 (2)
AHP201610FA-1R5M	1.5	±20	1V/1M	0.068	0.082	3.20	2.80	2.90 (1) 3.10 (2)	2.50 (1) 2.70 (2)
AHP201610FA-2R2M	2.2	±20	1V/1M	0.100	0.120	2.70	2.40	2.20 (1) 2.30 (2)	2.00 (1) 2.10 (2)
AHP201610FA-4R7M	4.7	±20	1V/1M	0.180	0.216	1.60	1.40	1.60 (1) 1.80 (2)	1.40 (1) 1.60 (2)

Note:

Isat：Based on inductance change （△L/L0：≦30%）@ ambient temp. 25℃

Irms：Based on temperature rise （△T：40℃.）Max

Measurement board data

Irms1

Material : FR4

Board dimensions : 100 X 50 X 1.6t mm

Pattern dimensions: 45 X 30 mm (Double side board)

Pattern thickness : 50 μm

Irms2

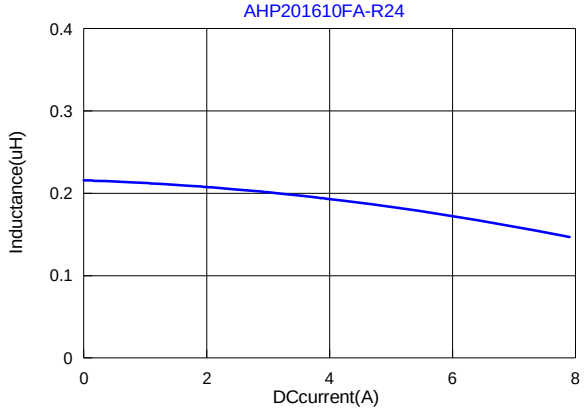
Material: FR4

Board dimensions : 100 X 50 X 1.6t mm

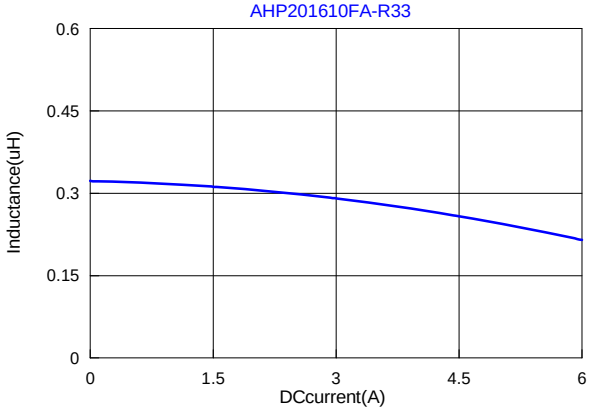
Pattern dimensions: 45 X 45 mm (Double side board)

Pattern thickness : 70 μm

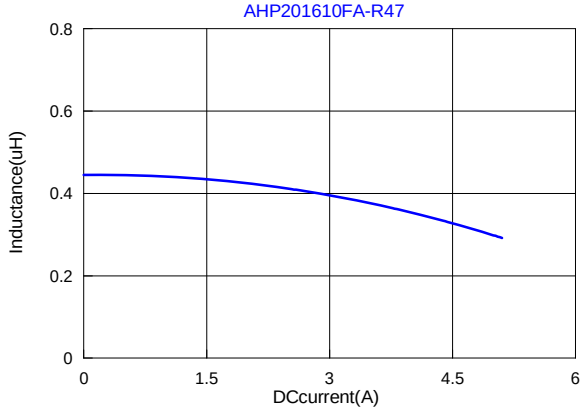
AHP201610FA-R24



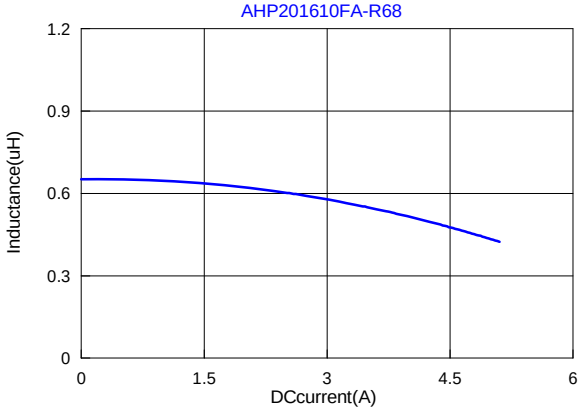
AHP201610FA-R33



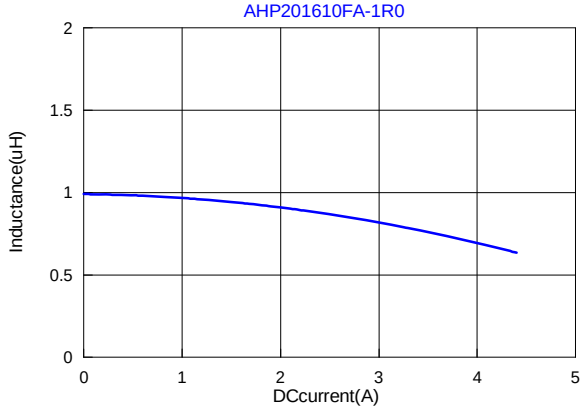
AHP201610FA-R47



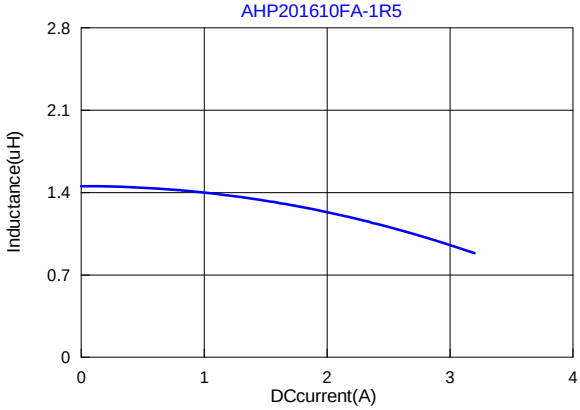
AHP201610FA-R68

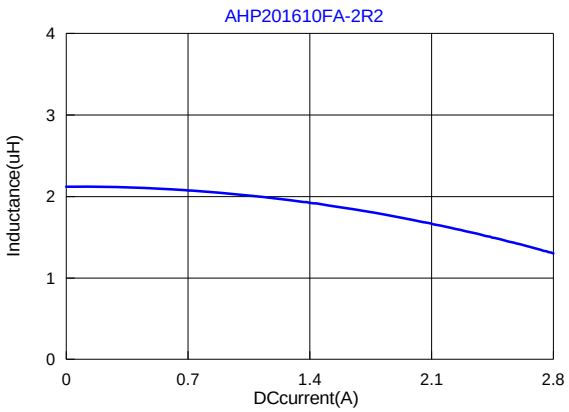


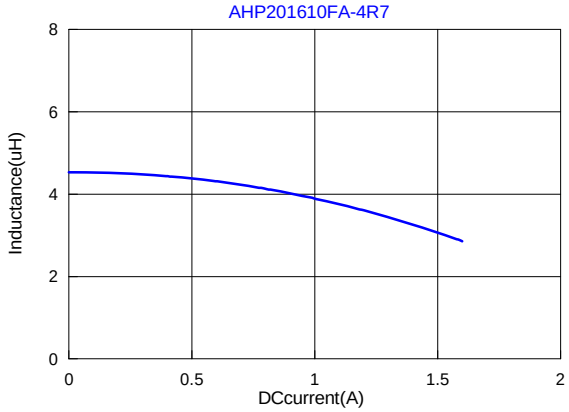
AHP201610FA-1R0



AHP201610FA-1R5




AHP201610FA-2R2
Inductance(uH)
DCcurrent(A)
0
1
2
3
4
0
0.7
1.4
2.1
2.8


AHP201610FA-4R7
Inductance(uH)
DCcurrent(A)
0
2
4
6
8
0
0.5
1
1.5
2

Power Inductor

AHP201610HF-SERIES

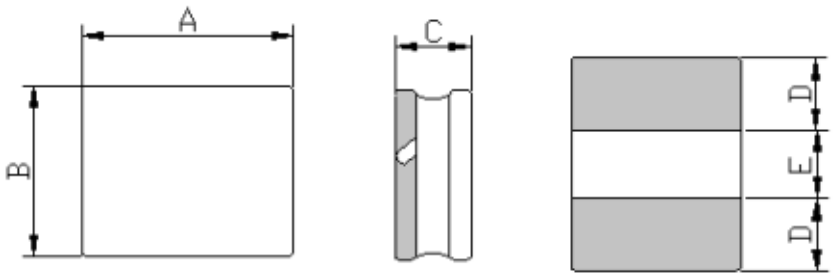
1. Features

1. This specification applies Low Profile Power Inductors.
2. 100% Lead(Pb) & Halogen-Free and RoHS compliant.

Halogen-free

Pb-free

2. Dimension



Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
AHP201610HF	2.0 -0.1/+0.2	1.6 -0.1/+0.2	1.0Max	0.50 ref.	1.00 ref.

Units: mm

3. Part Numbering

AHP	201610	HF	-	R24	M
A	B	C		D	E

A: Series
B: Dimension
C: Lead Free — Material
D: Inductance — R24=0.24uH
E: Inductance Tolerance — M=±20%

4. Specification

TAI-TECH Part Number	Inductance (uH)	Tolerance (%)	Test Frequency (Hz)	DCR (Ω) typ.	DCR (Ω) Max.	I sat (A) typ.	I sat (A) Max.	I rms (A) typ	I rms (A) Max.
AHP201610HF-R24M	0.24	±20	1V/1M	0.017	0.021	7.00	6.00	5.60 (1) 5.90 (2)	5.00 (1) 5.30 (2)
AHP201610HF-R33M	0.33	±20	1V/1M	0.023	0.029	5.50	5.00	5.10 (1) 5.30 (2)	4.60 (1) 4.80 (2)
AHP201610HF-R47M	0.47	±20	1V/1M	0.028	0.035	5.20	4.30	4.50 (1) 4.80 (2)	4.00 (1) 4.40 (2)
AHP201610HF-R68M	0.68	±20	1V/1M	0.040	0.050	4.30	3.70	3.80 (1) 4.00 (2)	3.40 (1) 3.60 (2)
AHP201610HF-1R0M	1.0	±20	1V/1M	0.053	0.065	3.60	3.00	3.10 (1) 3.50 (2)	2.80 (1) 3.20 (2)
AHP201610HF-1R5M	1.5	±20	1V/1M	0.100	0.120	2.60	2.30	2.40 (1) 2.70 (2)	2.10 (1) 2.30 (2)
AHP201610HF-2R2M	2.2	±20	1V/1M	0.110	0.130	2.10	1.90	2.10 (1) 2.20 (2)	1.90 (1) 2.00 (2)
AHP201610HF-4R7M	4.7	±20	1V/1M	0.190	0.230	1.10	1.00	1.10 (1) 1.20 (2)	1.00 (1) 1.10 (2)

Note:

Isat：Based on inductance change （△L/L0：≦30%）@ ambient temp. 25℃

Irms：Based on temperature rise （△T：40℃.）Max

Measurement board data

Irms1

Material : FR4

Board dimensions : 100 X 50 X 1.6t mm

Pattern dimensions: 45 X 30 mm (Double side board)

Pattern thickness : 50 μm

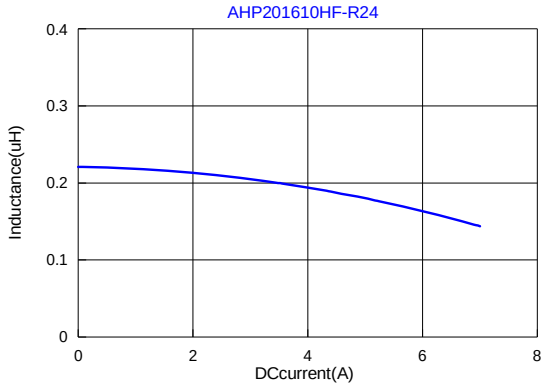
Irms2

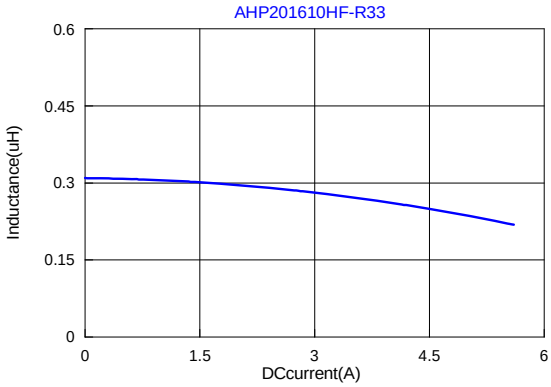
Material : FR4

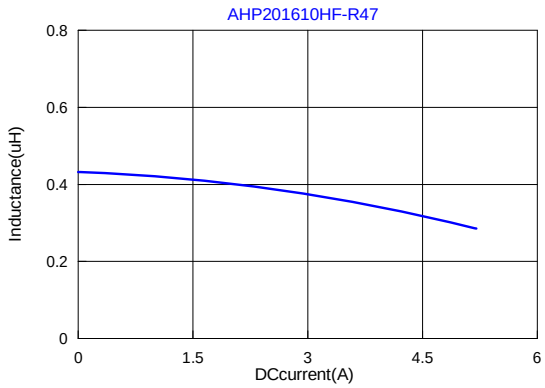
Board dimensions : 100 X 50 X 1.6t mm

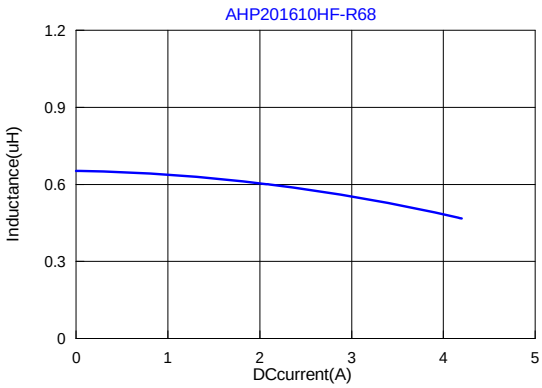
Pattern dimensions: 45 X 45 mm (Double side board)

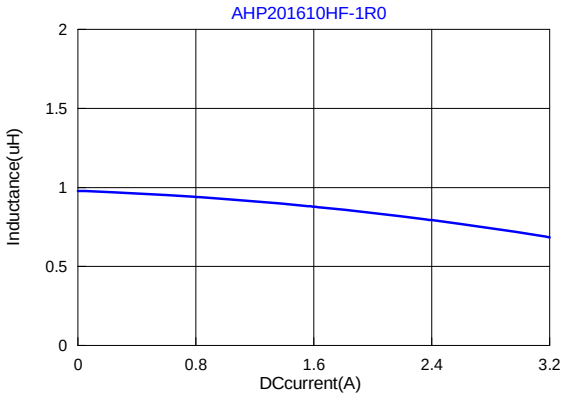
Pattern thickness : 70 μm

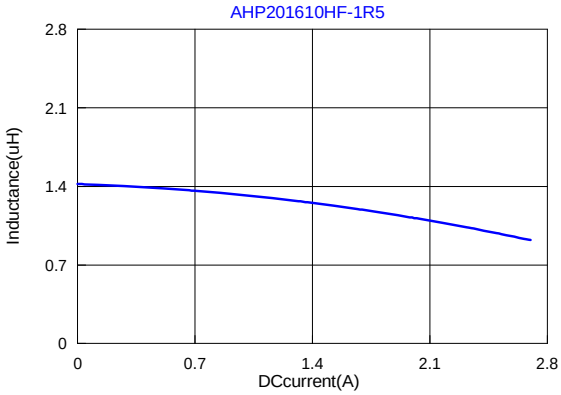


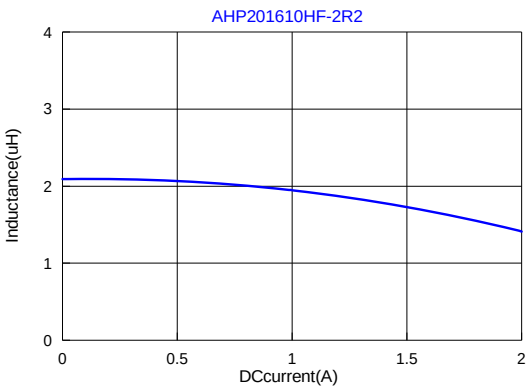


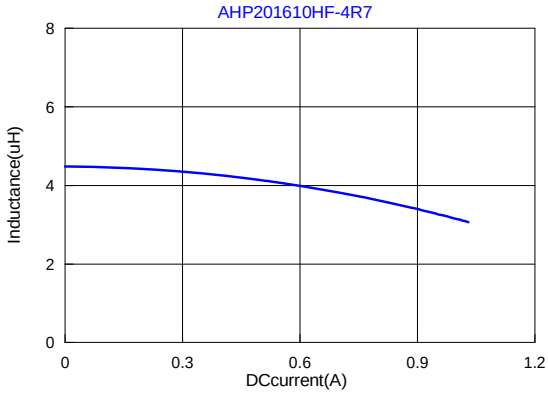









AHP201610HF-2R2
Inductance(uH)
DCcurrent(A)
0
1
2
3
4
0
0.5
1
1.5
2


AHP201610HF-4R7
Inductance(uH)
DCcurrent(A)
0
2
4
6
8
0
0.3
0.6
0.9
1.2

Power Inductor

AHP252010FA-SERIES

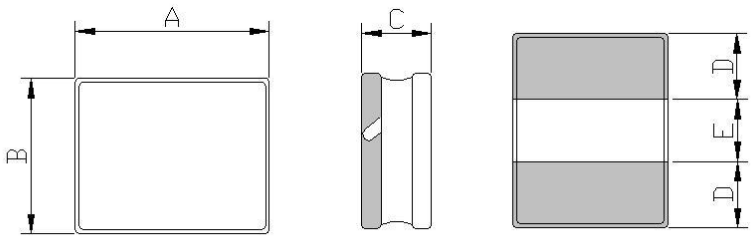
1. Features

1. This specification applies Low Profile Power Inductors.
2. 100% Lead(Pb) & Halogen-Free and RoHS compliant.

Halogen-free

Pb-free

2. Dimension



Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
AHP252010FA	2.5 -0.1/+0.2	2.0 -0.1/+0.2	1.0Max	0.75 ref.	1.00 ref.

Units: mm

3. Part Numbering

AHP	252010	FA	-	R24	M
A	B	C		D	E

A: Series
B: Dimension
C: Lead Free Material
D: Inductance R24=0.24uH
E: Inductance Tolerance M=±20%

4. Specification

TAI-TECH Part Number	Inductance (uH)	Tolerance (%)	Test Frequency (Hz)	DCR (Ω) typ.	DCR (Ω) Max.	I sat (A) typ.	I sat (A) Max.	I rms (A) typ	I rms (A) MAX
AHP252010FA-R24M	0.24	±20	1V/1M	0.018	0.022	9.50	8.00	5.50 (1) 6.00 (2)	5.00 (1) 5.50 (2)
AHP252010FA-R33M	0.33	±20	1V/1M	0.023	0.028	8.00	6.50	5.30 (1) 5.60 (2)	4.80 (1) 5.10 (2)
AHP252010FA-R47M	0.47	±20	1V/1M	0.027	0.035	7.00	5.90	4.60 (1) 5.30 (2)	4.20 (1) 4.80 (2)
AHP252010FA-R68M	0.68	±20	1V/1M	0.032	0.040	5.50	4.60	4.20 (1) 4.40 (2)	3.80 (1) 4.00 (2)
AHP252010FA-1R0M	1.0	±20	1V/1M	0.044	0.053	4.90	4.30	3.50 (1) 3.70 (2)	3.10(1) 3.40 (2)
AHP252010FA-1R5M	1.5	±20	1V/1M	0.062	0.074	3.80	3.10	3.20 (1) 3.40 (2)	2.80 (1) 3.00 (2)
AHP252010FA-2R2M	2.2	±20	1V/1M	0.078	0.093	2.80	2.30	2.60 (1) 2.80 (2)	2.30 (1) 2.50 (2)
AHP252010FA-4R7M	4.7	±20	1V/1M	0.180	0.216	1.70	1.40	1.70 (1) 1.80 (2)	1.50 (1) 1.60 (2)

Note:

Isat：Based on inductance change （△L/L0：≦30%）@ ambient temp. 25℃

Irms：Based on temperature rise （△T：40℃.）Max

Measurement board data

Irms1

Material : FR4

Board dimensions : 100 X 50 X 1.6t mm

Pattern dimensions: 45 X 30 mm (Double side board)

Pattern thickness : 50 μm

Irms2

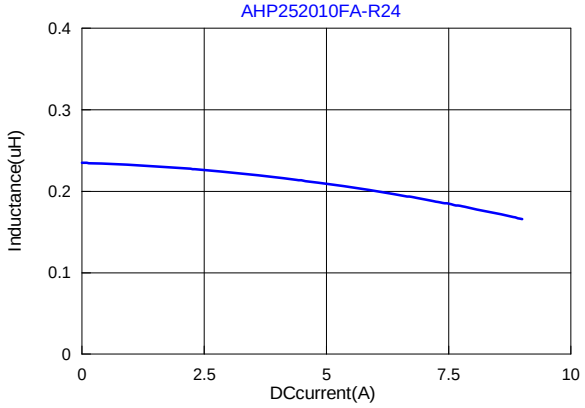
Material : FR4

Board dimensions : 100 X 50 X 1.6t mm

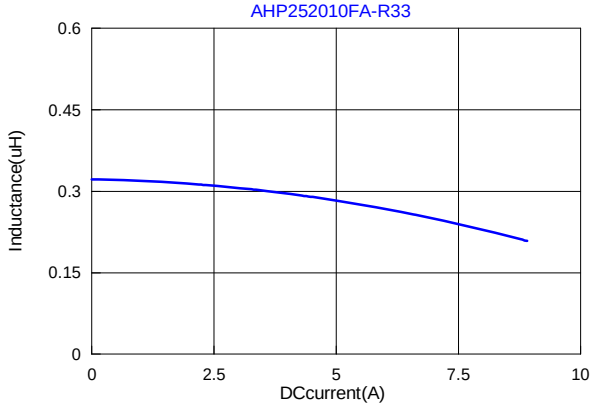
Pattern dimensions: 45 X 45 mm (Double side board)

Pattern thickness : 70 μm

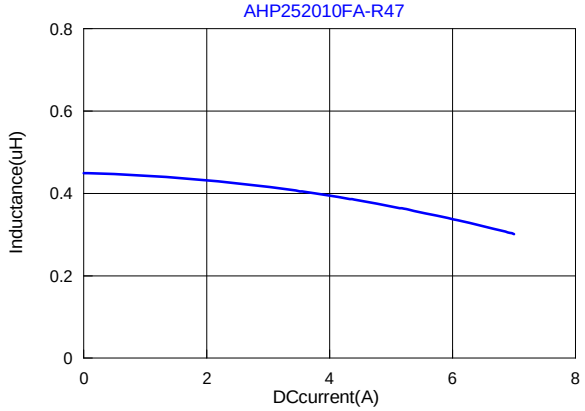
AHP252010FA-R24



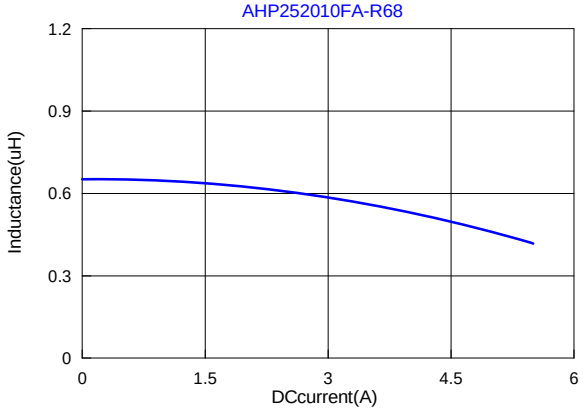
AHP252010FA-R33



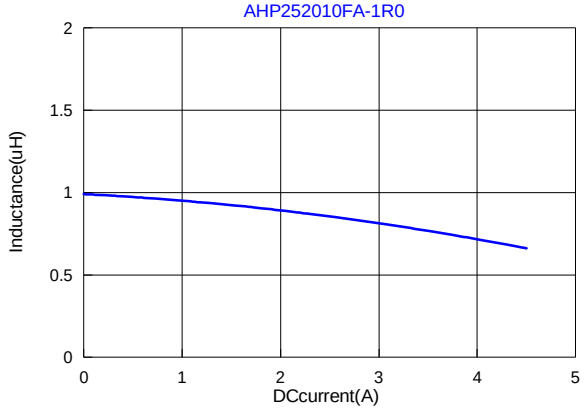
AHP252010FA-R47



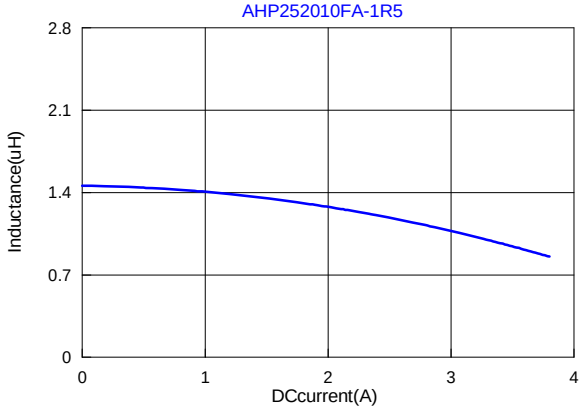
AHP252010FA-R68

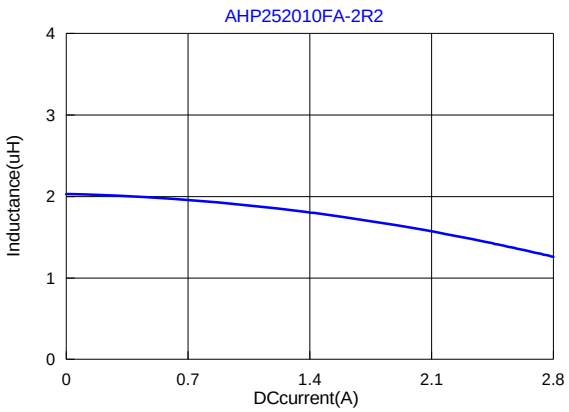


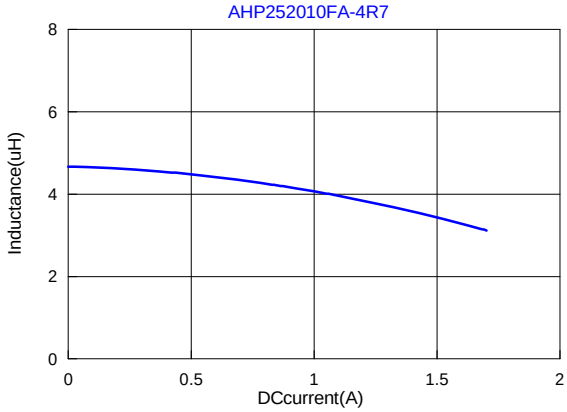
AHP252010FA-1R0



AHP252010FA-1R5




AHP252010FA-2R2
Inductance(uH)
DCcurrent(A)
0
1
2
3
4
0
0.7
1.4
2.1
2.8


AHP252010FA-4R7
Inductance(uH)
DCcurrent(A)
0
2
4
6
8
0
0.5
1
1.5
2

Power Inductor

AHP252010HF-SERIES

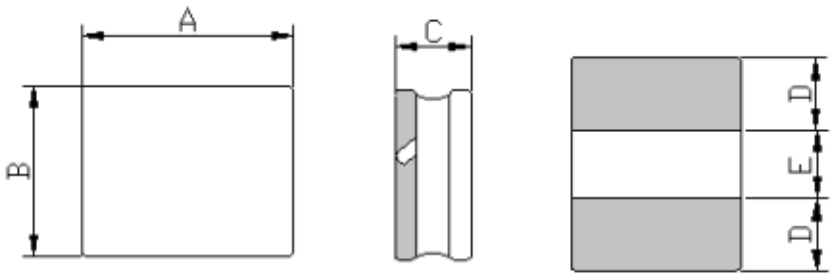
1. Features

1. This specification applies Low Profile Power Inductors.
2. 100% Lead(Pb) & Halogen-Free and RoHS compliant.

Halogen-free

Pb-free

2. Dimension



Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
AHP252010HF	2.5 -0.1/+0.2	2.0 -0.1/+0.2	1.0Max	0.75 ref.	1.00 ref.

Units: mm

3. Part Numbering

AHP	252010	HF	-	R24	M
A	B	C		D	E

A: Series
B: Dimension
C: Lead Free Material
D: Inductance R24=0.24uH
E: Inductance Tolerance M=±20%

4. Specification

TAI-TECH Part Number	Inductance (uH)	Tolerance (%)	Test Frequency (Hz)	DCR (Ω) typ.	DCR (Ω) Max.	I sat (A) typ.	I sat (A) Max.	I rms (A) typ	I rms (A) Max.
AHP252010HF-R24M	0.24	±20	1V/1M	0.022	0.028	7.20	6.70	5.50 (1) 6.00 (2)	5.00 (1) 5.50 (2)
AHP252010HF-R33M	0.33	±20	1V/1M	0.023	0.029	6.00	5.50	4.80 (1) 5.00 (2)	4.30 (1) 4.50 (2)
AHP252010HF-R47M	0.47	±20	1V/1M	0.029	0.035	5.50	4.90	4.50 (1) 4.70 (2)	3.90 (1) 4.20 (2)
AHP252010HF-R68M	0.68	±20	1V/1M	0.036	0.043	4.40	3.80	3.80 (1) 4.00 (2)	3.40 (1) 3.60 (2)
AHP252010HF-1R0M	1.0	±20	1V/1M	0.044	0.053	3.60	3.10	3.50 (1) 3.70 (2)	3.00 (1) 3.20 (2)
AHP252010HF-1R5M	1.5	±20	1V/1M	0.072	0.086	3.20	2.70	2.50 (1) 2.80 (2)	2.20 (1) 2.40 (2)
AHP252010HF-2R2M	2.2	±20	1V/1M	0.090	0.108	2.50	2.10	2.40 (1) 2.60 (2)	2.10 (1) 2.30 (2)
AHP252010HF-4R7M	4.7	±20	1V/1M	0.220	0.264	1.70	1.40	1.40 (1) 1.60 (2)	1.20 (1) 1.40 (2)

Note:

Isat：Based on inductance change （△L/L0：≦30%）@ ambient temp. 25℃

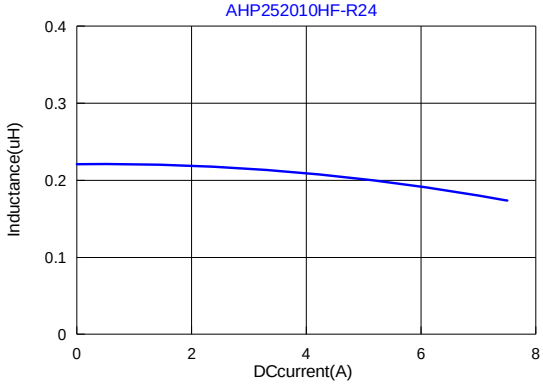
Irms：Based on temperature rise （△T：40℃.）Max

Measurement board data

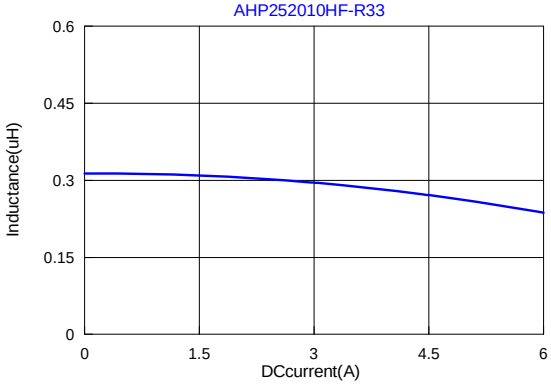
Irms1
Material : FR4
Board dimensions : 100 X 50 X 1.6t mm
Pattern dimensions: 45 X 30 mm (Double side board)
Pattern thickness : 50 μm

Irms2
Material : FR4
Board dimensions : 100 X 50 X 1.6t mm
Pattern dimensions: 45 X 45 mm (Double side board)
Pattern thickness : 70 μm

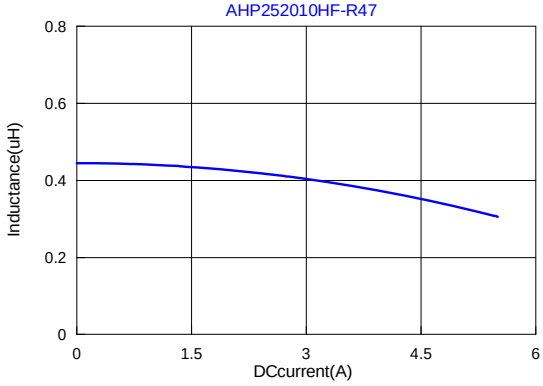
AHP252010HF-R24



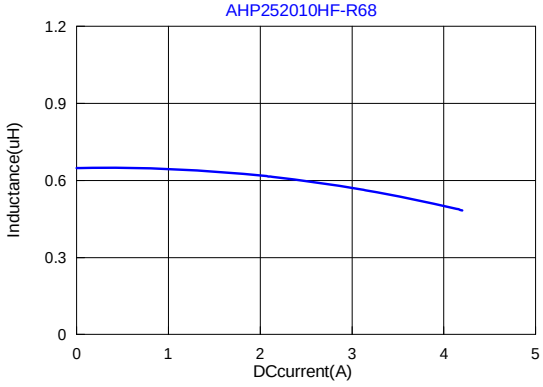
AHP252010HF-R33



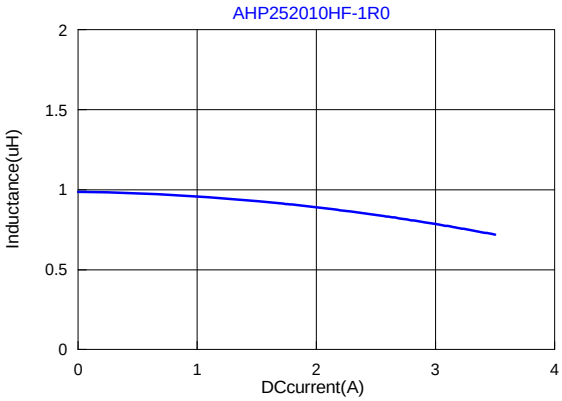
AHP252010HF-R47



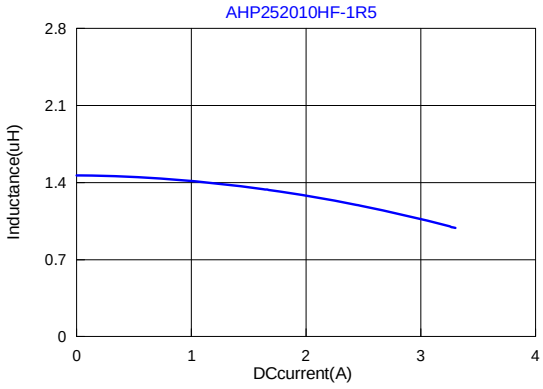
AHP252010HF-R68

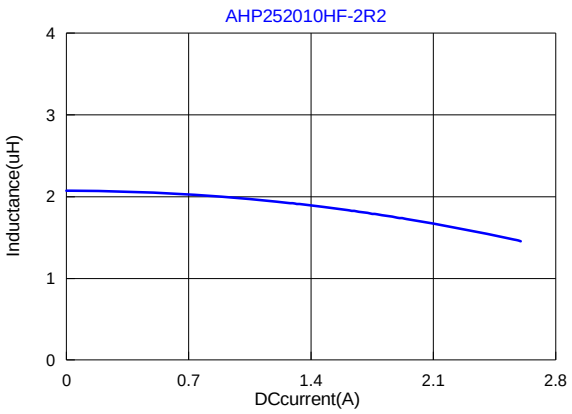


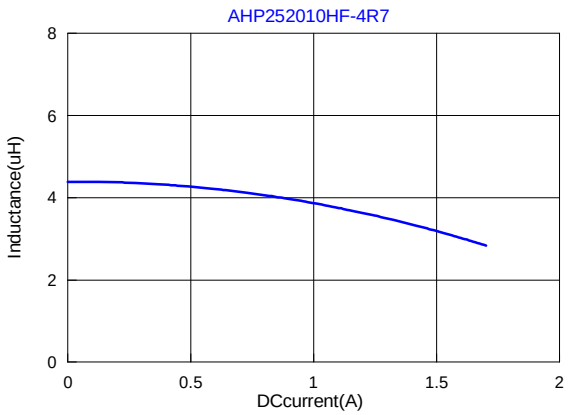
AHP252010HF-1R0



AHP252010HF-1R5




AHP252010HF-2R2
Inductance(uH)
DCcurrent(A)
0
1
2
3
4
0
0.7
1.4
2.1
2.8


AHP252010HF-4R7
Inductance(uH)
DCcurrent(A)
0
2
4
6
8
0
0.5
1
1.5
2

Power Inductor

AHP252012RA-SERIES

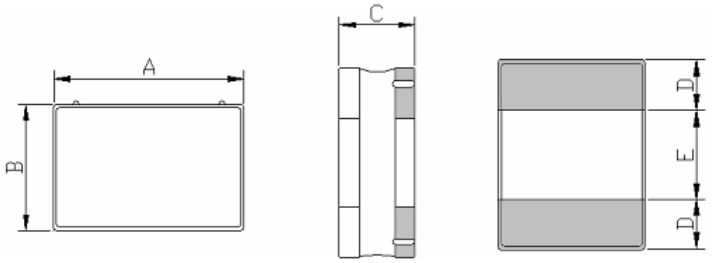
1. Features

1. This specification applies Low Profile Power Inductors.
2. 100% Lead(Pb) & Halogen-Free and RoHS compliant.

Halogen-free

Pb-free

2. Dimension



Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
AHP252012RA	2.5 -0.1/+0.2	2.0 -0.1/+0.2	1.2Max	0.75 ref.	1.00 ref.

Units: mm

3. Part Numbering

AHP	252012	RA	-	2R2	M
A	B	C		D	E

A: Series
B: Dimension
C: Lead Free Material
D: Inductance 2R2=2.2uH
E: Inductance Tolerance M=±20%

4. Specification

TAI-TECH Part Number	Inductance (uH)	Tolerance (%)	Test Frequency (Hz)	DCR (Ω) typ.	DCR (Ω) Max.	I sat (A) typ.	I sat (A) Max.	I rms (A) typ	I rms (A) MAX
AHP252012RA-R24M	0.24	±20	1V/1M	0.018	0.022	8.00	7.00	5.50(1) 6.00(2)	5.00(1) 5.50(2)
AHP252012RA-R33M	0.33	±20	1V/1M	0.023	0.028	7.00	6.00	5.10(1) 5.60(2)	4.60(1) 5.10(2)
AHP252012RA-R47M	0.47	±20	1V/1M	0.027	0.035	6.00	5.00	4.80(1) 5.30(2)	4.30(1) 4.80(2)
AHP252012RA-R68M	0.68	±20	1V/1M	0.036	0.045	5.00	4.50	4.00(1) 4.50(2)	3.60(1) 4.00(2)
AHP252012RA-1R0M	1.0	±20	1V/1M	0.045	0.058	4.30	3.80	3.50(1) 3.80(2)	3.20(1) 3.50(2)
AHP252012RA-1R5M	1.5	±20	1V/1M	0.060	0.072	3.50	3.00	3.10(1) 3.50(2)	2.70(1) 3.10(2)
AHP252012RA-2R2M	2.2	±20	1V/1M	0.090	0.108	3.10	2.60	2.50(1) 2.80(2)	2.20(1) 2.50(2)
AHP252012RA-3R3M	3.3	±20	1V/1M	0.125	0.150	2.20	1.90	2.10(1) 2.50(2)	1.80(1) 2.20(2)
AHP252012RA-4R7M	4.7	±20	1V/1M	0.190	0.220	2.00	1.70	1.70(1) 1.90(2)	1.40(1) 1.60(2)
AHP252012RA-6R8M	6.8	±20	1V/1M	0.300	0.360	1.80	1.50	1.20(1) 1.30(2)	1.00(1) 1.10(2)
AHP252012RA-100M	10	±20	1V/1M	0.420	0.475	1.40	1.10	1.00(1) 1.10(2)	0.90(1) 1.00(2)

Note:

Isat：Based on inductance change （△L/L0：≦30%）@ ambient temp. 25℃

Irms：Based on temperature rise （△T：40℃.）Max

Measurement board data

Irms1

Material : FR4

Board dimensions : 100 X 50 X 1.6t mm

Pattern dimensions: 45 X 30 mm (Double side board)

Pattern thickness : 50 μm

Irms2

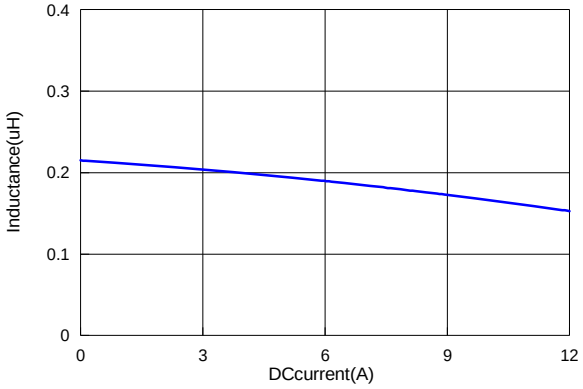
Material : FR4

Board dimensions : 100 X 50 X 1.6t mm

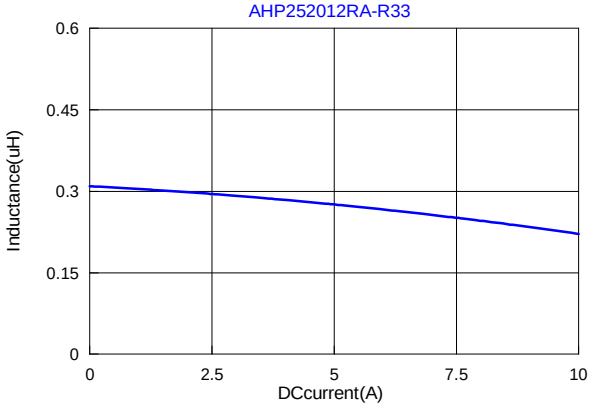
Pattern dimensions: 45 X 45 mm (Double side board)

Pattern thickness : 70 μm

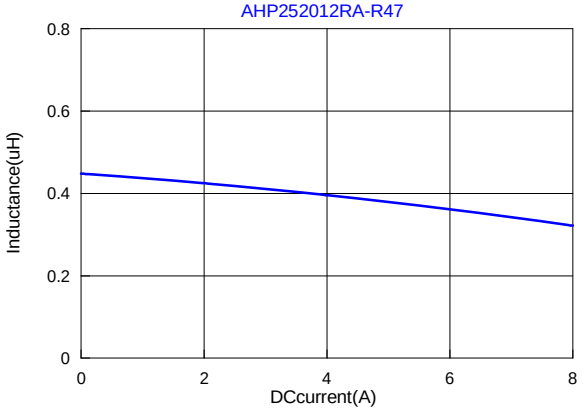
AHP252012RA-R24



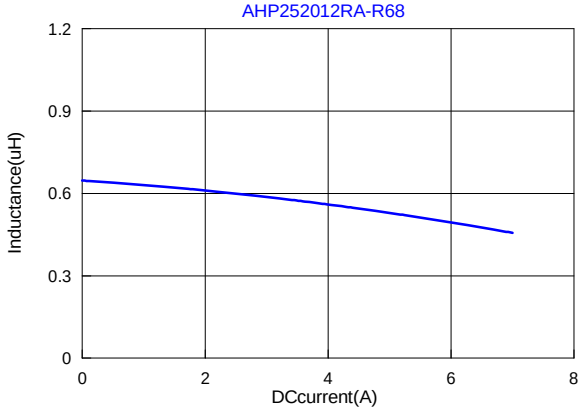
AHP252012RA-R33



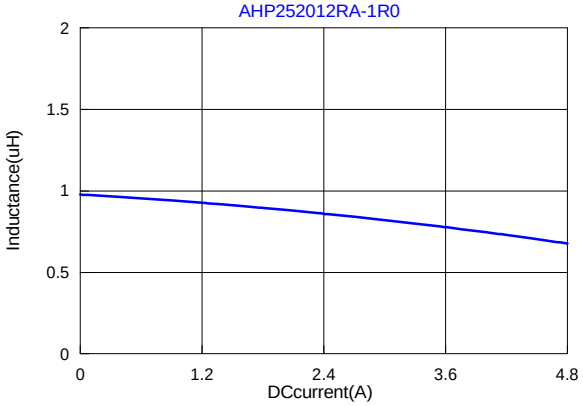
AHP252012RA-R47



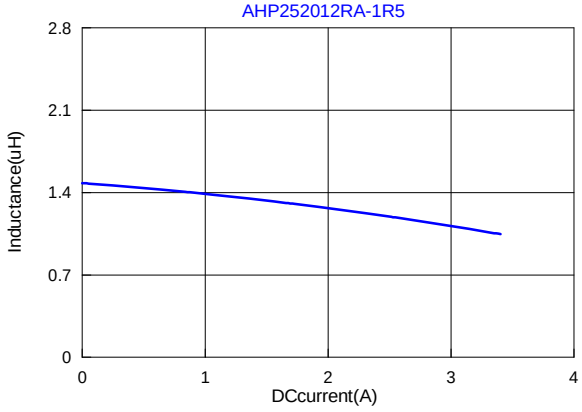
AHP252012RA-R68



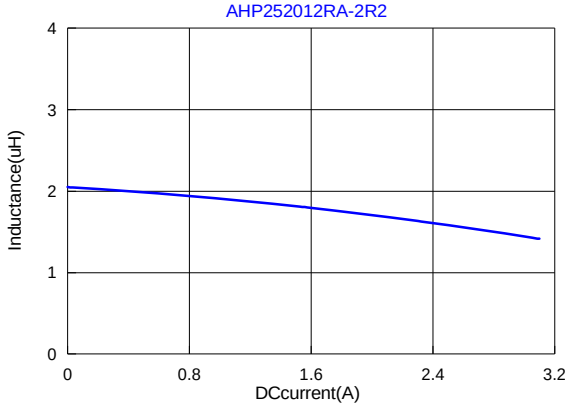
AHP252012RA-1R0



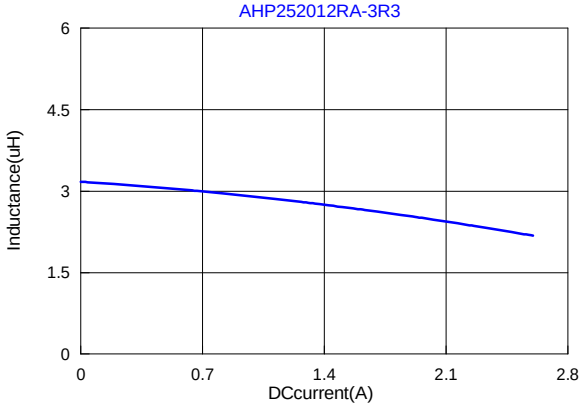
AHP252012RA-1R5



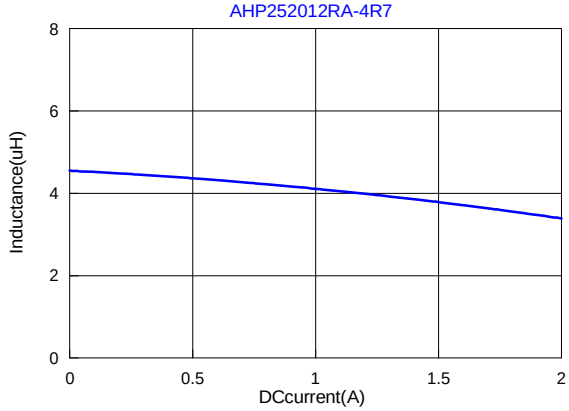
AHP252012RA-2R2



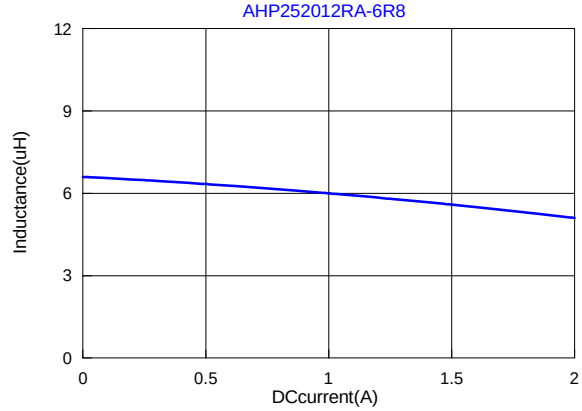
AHP252012RA-3R3



AHP252012RA-4R7



AHP252012RA-6R8



AHP252012RA-100