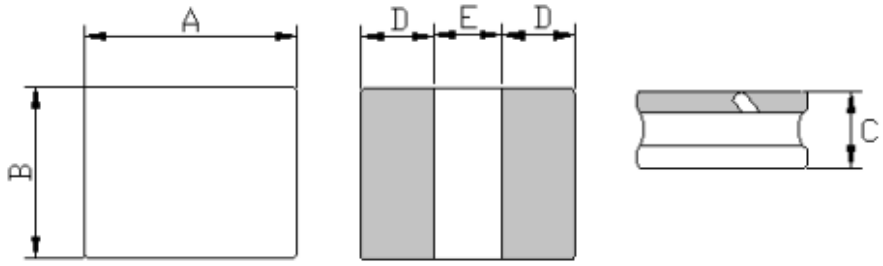
Power Inductor

AHP252012HV-SERIES

1. Features

1. This specification applies Low Profile Power Inductors.
2. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
3. High reliability -Reliability tests comply with AEC-Q200
4. Operating temperature-40~+125℃ (Including self - temperature rise)

2. Dimension



Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
AHP252012HV	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	H	V	-	R47	M
A	B	C	D		E	F

A: Series
B: Dimension
C: Lead Free — Material
D: Category Code — V=Vehicle
E: Inductance — R47=0.47uH
F: 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
AHP252012HV-R24M	0.24	±20	1V/1M	0.011	0.015	7.80	6.50	7.00 (1) 7.50 (2)	6.00 (1) 6.50 (2)
AHP252012HV-R33M	0.33	±20	1V/1M	0.017	0.023	7.00	6.00	5.80 (1) 6.30 (2)	4.80 (1) 5.20 (2)
AHP252012HV-R47M	0.47	±20	1V/1M	0.021	0.027	6.50	5.50	5.00 (1) 5.50 (2)	4.20 (1) 4.70 (2)
AHP252012HV-R68M	0.68	±20	1V/1M	0.030	0.037	6.00	5.00	4.50 (1) 5.00 (2)	3.90 (1) 4.20 (2)
AHP252012HV-1R0M	1.0	±20	1V/1M	0.036	0.044	4.50	3.80	4.00 (1) 4.50 (2)	3.50 (1) 4.00 (2)
AHP252012HV-1R5M	1.5	±20	1V/1M	0.050	0.060	3.80	3.20	3.50 (1) 4.00 (2)	3.00 (1) 3.50 (2)
AHP252012HV-2R2M	2.2	±20	1V/1M	0.070	0.084	2.60	2.20	2.60 (1) 3.00 (2)	2.20 (1) 2.50 (2)
AHP252012HV-3R3M	3.3	±20	1V/1M	0.115	0.140	2.30	2.00	2.00 (1) 2.20 (2)	1.80 (1) 2.00 (2)
AHP252012HV-4R7M	4.7	±20	1V/1M	0.125	0.150	1.70	1.50	1.70 (1) 1.90 (2)	1.50 (1) 1.70 (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

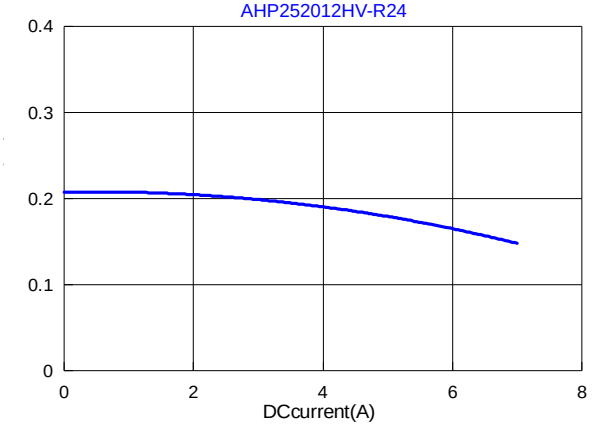
Material : FR4

Board dimensions : 100 X 50 X 1.6t mm

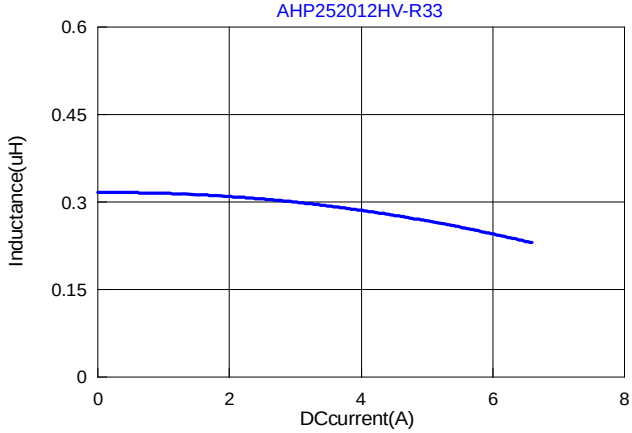
Pattern dimensions: 45 X 45 mm (Double side board)

Pattern thickness : 70 μm

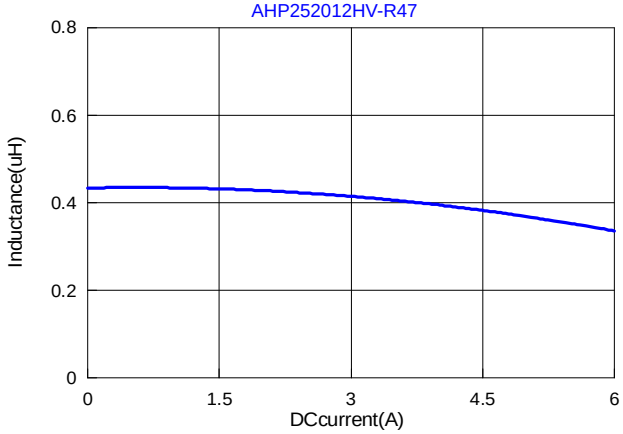
AHP252012HV-R24



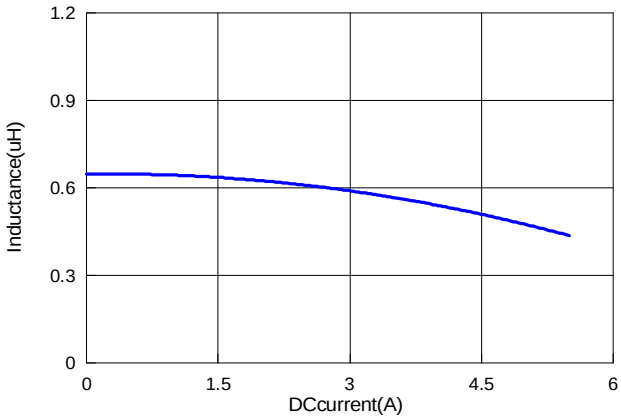
AHP252012HV-R33



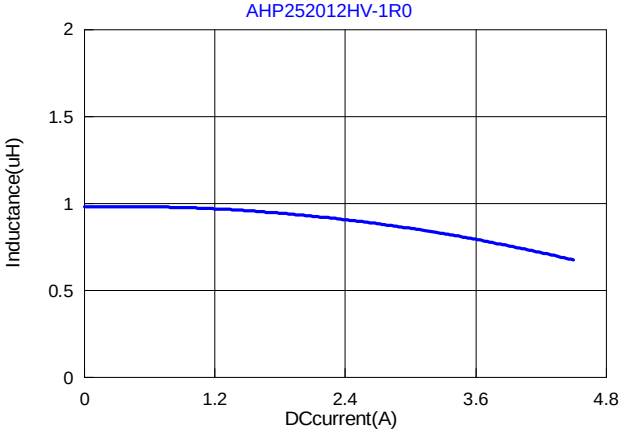
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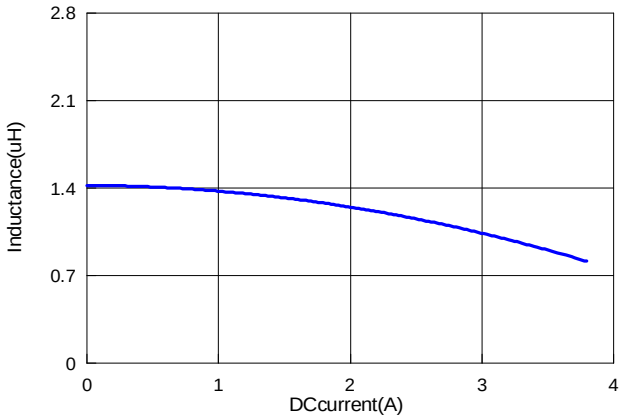
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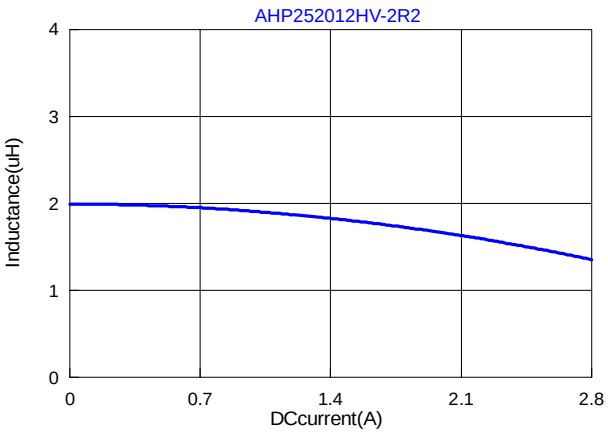


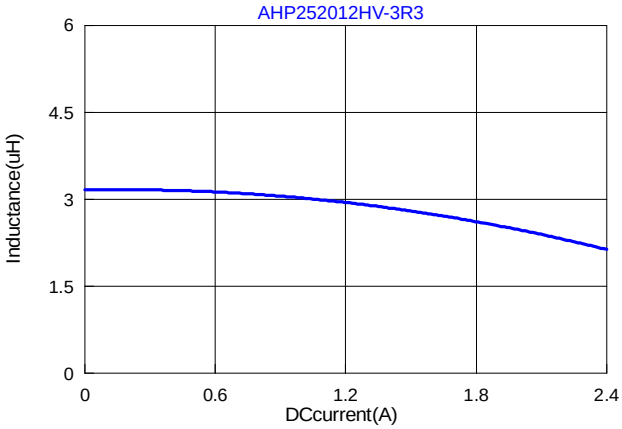
AHP252012HV-1R0

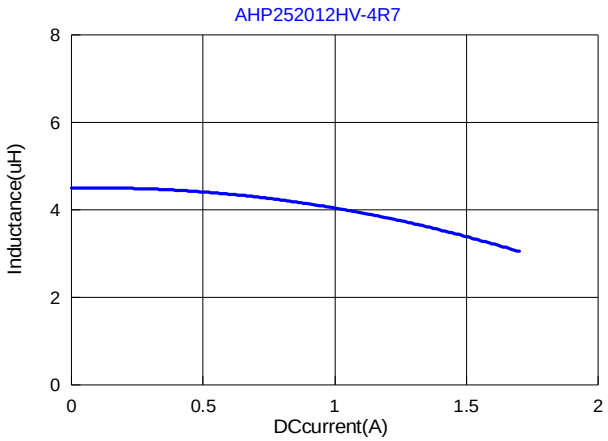


AHP252012HV-1R5




AHP252012HV-2R2
Inductance(uH)
DCcurrent(A)
0
1
2
3
4
0
0.7
1.4
2.1
2.8


AHP252012HV-3R3
Inductance(uH)
DCcurrent(A)
0
1.5
3
4.5
6
0
0.6
1.2
1.8
2.4


AHP252012HV-4R7
Inductance(uH)
DCcurrent(A)
0
2
4
6
8
0
0.5
1
1.5
2