

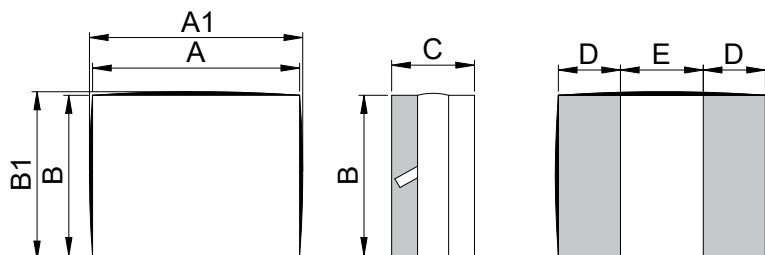
**Power Inductor** **AHP201610FA-SERIES**

**1. Features**

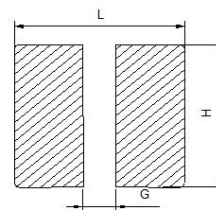
1. This specification applies Low Profile Power Inductors.
2. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
3. Operating temperature :-40~+125℃ (Including self - temperature rise)



**2. Dimension**



**Recommended Land pattern**

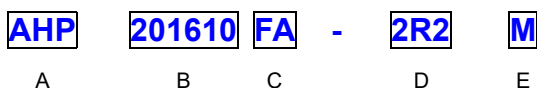


A	A1	B	B1	C	D	E
2.0 -0.1/+0.2	2.3max	1.6 -0.1/+0.2	1.9max	1.0Max	0.50 ref	1.00 ref

L(mm)	G(mm)	H(mm)
2.3	0.8	1.9

Unit:mm

**3. Part Numbering**



- A: Series
- B: Dimension
- C: Lead Free
- D: Inductance
- E: Inductance Tolerance
- Material
- 2R2=2.20uH
- K=± 10%, L=± 15%, M=± 20%, Y=± 30%.

## 4. Specification

Part Number	Inductance ( $\mu\text{H}$ ) $\pm 20\%$ @ 0 A DC	Test Frequency (Hz)	I rms (A)		I sat (A)		DCR ( $\Omega$ )	
			Typ	Max	Typ	Max	Typ	Max
AHP201610FA-R24M	0.24	1V/1M	5.70 (1) 6.50 (2)	5.10 (1) 5.50 (2)	7.50	6.50	0.015	0.020
AHP201610FA-R33M	0.33	1V/1M	5.50 (1) 5.60 (2)	5.00 (1) 5.20 (2)	5.50	5.00	0.018	0.023
AHP201610FA-R47M	0.47	1V/1M	4.70 (1) 5.30 (2)	4.30 (1) 4.70 (2)	5.20	4.50	0.024	0.029
AHP201610FA-R68M	0.68	1V/1M	3.90 (1) 4.20 (2)	3.50 (1) 3.80 (2)	5.10	4.40	0.036	0.044
AHP201610FA-1R0M	1.00	1V/1M	3.20 (1) 3.40 (2)	2.90 (1) 3.10 (2)	4.50	4.00	0.050	0.060
AHP201610FA-1R5M	1.50	1V/1M	2.90 (1) 3.10 (2)	2.50 (1) 2.70 (2)	3.20	2.80	0.068	0.082
AHP201610FA-2R2M	2.20	1V/1M	2.20 (1) 2.30 (2)	2.00 (1) 2.10 (2)	2.70	2.40	0.100	0.120
AHP201610FA-3R3M	3.30	1V/1M	1.80(1) 2.00(2)	1.60(1) 1.80(2)	2.00	1.70	0.160	0.192
AHP201610FA-4R7M	4.70	1V/1M	1.60 (1) 1.80 (2)	1.40 (1) 1.60 (2)	1.60	1.40	0.180	0.216

Note:

Heat Rated Current (I rms) will cause the coil temperature rise approximately  $\Delta T$  of 40°C

Saturation Current (I sat) will cause L0 to drop approximately 30%.

Rated DC current: The lower value of I rms and I sat.

Measurement board data

I rms1

Material : FR4

Board dimensions : 100 X 50 X 1.6t mm

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

Pattern thickness : 50  $\mu\text{m}$

I rms2

Material: FR4

Board dimensions : 100 X 50 X 1.6t mm

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

Pattern thickness : 70  $\mu\text{m}$

### 10. Typical Performance Curves

