

# Power Inductor

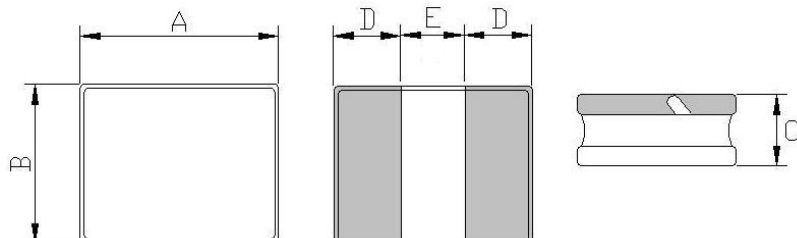
AHP201610FA-SERIES

## 1. Features

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



## 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.

## 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 ( $\Omega$ ) typ.	DCR ( $\Omega$ ) Max.	I sat (A)	I rms (A)
AHP201610FA-R24M	0.24	$\pm 20$	1V/1M	0.015	0.020	7.50	5.70 (1) 6.50 (2)
AHP201610FA-R33M	0.33	$\pm 20$	1V/1M	0.018	0.023	5.50	5.50 (1) 5.60 (2)
AHP201610FA-R47M	0.47	$\pm 20$	1V/1M	0.024	0.029	5.20	4.70 (1) 5.30 (2)
AHP201610FA-R68M	0.68	$\pm 20$	1V/1M	0.036	0.044	5.10	3.90 (1) 4.20 (2)
AHP201610FA-1R0M	1.0	$\pm 20$	1V/1M	0.050	0.060	4.50	3.20 (1) 3.40 (2)
AHP201610FA-1R5M	1.5	$\pm 20$	1V/1M	0.068	0.082	3.20	2.90 (1) 3.10 (2)
AHP201610FA-2R2M	2.2	$\pm 20$	1V/1M	0.100	0.120	2.70	2.20 (1) 2.30 (2)
AHP201610FA-3R3M	3.3	$\pm 20$	1V/1M	0.160	0.192	2.00	1.80(1) 2.00(2)
AHP201610FA-4R7M	4.7	$\pm 20$	1V/1M	0.180	0.216	1.60	1.60 (1) 1.80 (2)

Note:

I<sub>sat</sub> : Saturation Current (I<sub>sat</sub>) will cause L0 to drop approximately 30%.

I<sub>rms</sub> : Heat Rated Current (I<sub>rms</sub>) will cause the coil temperature rise approximately  $\Delta T$  of 40°C.

Rated DC Current : The less value which is I<sub>rms</sub> or I<sub>sat</sub>.

Measurement board data

I<sub>rms1</sub>

Material : FR4

Board dimensions : 100 X 50 X 1.6t mm

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

Pattern thickness : 50  $\mu$ m

I<sub>rms2</sub>

Material: FR4

Board dimensions : 100 X 50 X 1.6t mm

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

Pattern thickness : 70  $\mu$ m

### 9. Typical Performance Curves

