

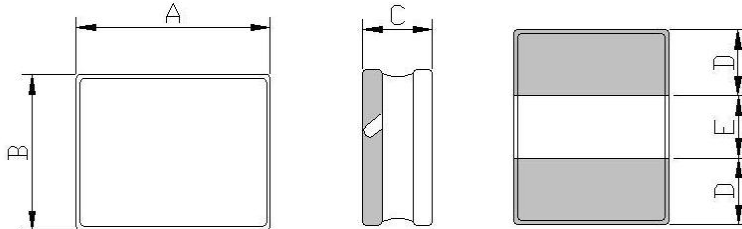
**Power Inductor** **AHP252010FA-SERIES**

**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).



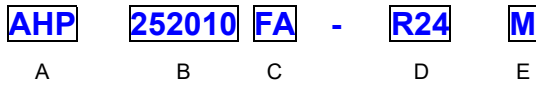
**2. Dimension**



Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
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**



- 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)
AHP252010FA-R24M	0.24	$\pm 20$	1V/1M	0.018	0.022	9.50	5.50 (1) 6.00 (2)
AHP252010FA-R33M	0.33	$\pm 20$	1V/1M	0.023	0.028	8.00	5.30 (1) 5.60 (2)
AHP252010FA-R47M	0.47	$\pm 20$	1V/1M	0.027	0.035	7.00	4.60 (1) 5.30 (2)
AHP252010FA-R68M	0.68	$\pm 20$	1V/1M	0.032	0.040	5.50	4.20 (1) 4.40 (2)
AHP252010FA-1R0M	1.0	$\pm 20$	1V/1M	0.044	0.053	4.90	3.50 (1) 3.70 (2)
AHP252010FA-1R5M	1.5	$\pm 20$	1V/1M	0.062	0.074	3.80	3.20 (1) 3.40 (2)
AHP252010FA-2R2M	2.2	$\pm 20$	1V/1M	0.078	0.093	2.80	2.60 (1) 2.80 (2)
AHP252010FA-3R3M	3.3	$\pm 20$	1V/1M	0.125	0.150	2.10	2.00 (1) 2.20 (2)
AHP252010FA-4R7M	4.7	$\pm 20$	1V/1M	0.180	0.216	1.70	1.70 (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

### 5. Typical Performance Curves

