

# Power Inductor

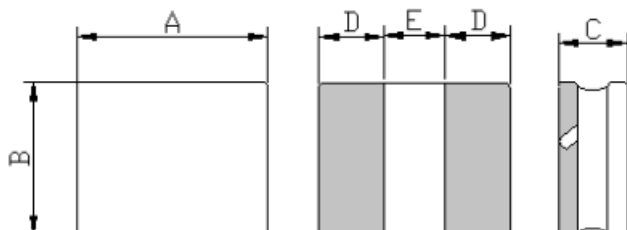
AHP322508FA-SERIES

## 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)
AHP322508FA	3.2 ± 0.2	2.5 ± 0.2	0.8 Max	0.95 ref.	1.30 ref.

Units: mm

## 3. Part Numbering

**AHP**   **322508**   **FA**   -   **2R2**   **M**

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
AHP322508FA-R24M	0.24	±20	1V/1M	0.040	0.048	8.00	7.00	4.50	4.00
AHP322508FA-R33M	0.33	±20	1V/1M	0.042	0.050	7.00	6.00	4.30	3.80
AHP322508FA-R47M	0.47	±20	1V/1M	0.050	0.060	6.00	5.00	4.00	3.60
AHP322508FA-R68M	0.68	±20	1V/1M	0.060	0.072	5.50	4.50	3.60	3.30
AHP322508FA-1R0M	1.0	±20	1V/1M	0.070	0.084	5.00	4.00	3.30	3.00
AHP322508FA-1R5M	1.5	±20	1V/1M	0.095	0.114	4.50	3.50	3.00	2.70
AHP322508FA-2R2M	2.2	±20	1V/1M	0.120	0.144	4.00	3.00	2.70	2.40
AHP322508FA-3R3M	3.3	±20	1V/1M	0.175	0.210	3.00	2.50	2.20	2.00
AHP322508FA-4R7M	4.7	±20	1V/1M	0.220	0.264	2.50	2.00	2.00	1.70
AHP322508FA-6R8M	6.8	±20	1V/1M	0.380	0.456	2.30	1.80	1.50	1.30
AHP322508FA-100M	10.0	±20	1V/1M	0.520	0.624	1.80	1.50	1.30	1.10

Note:

Isat : Based on inductance change ( $\Delta L/L0 : \leq 30\%$ ) @ ambient temp. 25°C

Irms : Based on temperature rise ( $\Delta T : 40^\circ\text{C}.$ ) Max

Measurement board data

Irms

Material : FR4

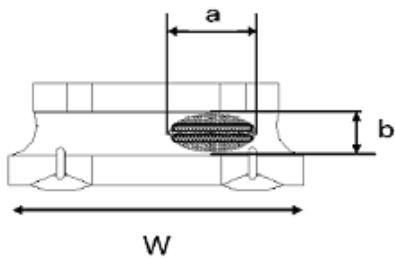
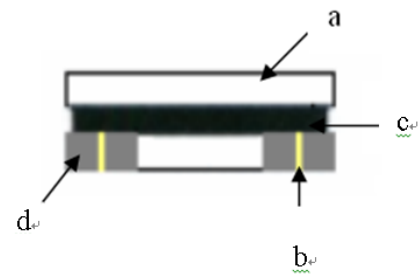
Board dimensions : 100 X 50 X 1.6t mm

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

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

## 5. Material List

No.	Description	Specification
a.	Core	Metal Core
b.	Wire	Enameled Copper Wire
c.	Glue	Epoxy with magnetic powder
d.	Terminal	Ag/Ni/Sn



Appearance of exposed wire tolerance limit :

1. Width direction ( dimension a ) : Acceptable when  $a \leq w/2$   
Nonconforming when  $a > w/2$
2. Length direction ( dimension b ) : Dimension b is not specified.
3. The total area of exposed wire occurring to each sides is not greater than 50% of coating resin area, and is acceptable.