

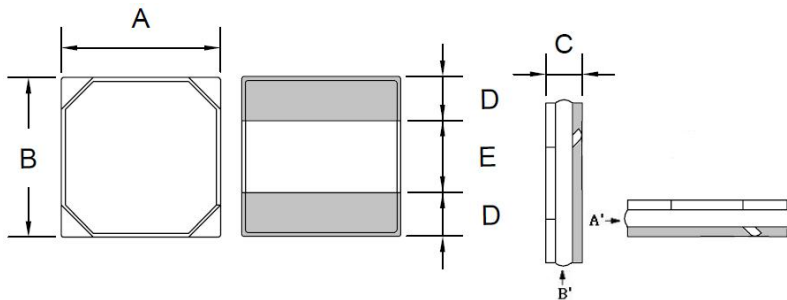
**Power Inductor** **AHP3008FA-SERIES**

**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).



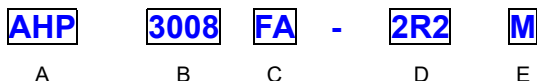
**2. Dimension**



| Series    | A(mm)   | A'(mm)  | B(mm)   | B'(mm)  | C(mm)   | D(mm)    | E(mm)    |
|-----------|---------|---------|---------|---------|---------|----------|----------|
| AHP3008FA | 3.0±0.2 | 3.3 Max | 3.0±0.2 | 3.3 Max | 0.7±0.1 | 1.0 ref. | 1.0 ref. |

Units: mm

**3. Part Numbering**



- A: Series
- B: Dimension
- C: Lead Free
- D: Inductance                      2R2=2.2uH
- 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) |
|----------------------|-----------------|---------------|---------------------|-----------------------|----------------------|-----------|-----------|
| AHP3008FA-R24M       | 0.24            | $\pm 20\%$    | 1V100K              | 0.035                 | 0.042                | 8.00      | 5.00      |
| AHP3008FA-R33M       | 0.33            | $\pm 20\%$    | 1V100K              | 0.050                 | 0.060                | 7.50      | 4.30      |
| AHP3008FA-R47M       | 0.47            | $\pm 20\%$    | 1V100K              | 0.055                 | 0.066                | 6.50      | 3.90      |
| AHP3008FA-R68M       | 0.68            | $\pm 20\%$    | 1V100K              | 0.080                 | 0.096                | 5.50      | 3.30      |
| AHP3008FA-1R0M       | 1.0             | $\pm 20\%$    | 1V100K              | 0.095                 | 0.114                | 4.80      | 3.10      |
| AHP3008FA-1R5M       | 1.5             | $\pm 20\%$    | 1V100K              | 0.115                 | 0.138                | 4.00      | 2.90      |
| AHP3008FA-2R2M       | 2.2             | $\pm 20\%$    | 1V100K              | 0.180                 | 0.216                | 3.50      | 2.30      |
| AHP3008FA-3R3M       | 3.3             | $\pm 20\%$    | 1V100K              | 0.280                 | 0.336                | 3.00      | 1.80      |
| AHP3008FA-4R7M       | 4.7             | $\pm 20\%$    | 1V100K              | 0.340                 | 0.408                | 2.50      | 1.55      |
| AHP3008FA-6R8M       | 6.8             | $\pm 20\%$    | 1V100K              | 0.380                 | 0.456                | 1.60      | 1.45      |
| AHP3008FA-100M       | 10.0            | $\pm 20\%$    | 1V100K              | 0.750                 | 0.900                | 1.50      | 1.15      |

Note:

Isat : Saturation Current (Isat) will cause L0 to drop approximately 30%.

Irms : Heat Rated Current (Irms) will cause the coil temperature rise approximately  $\Delta t$  of 40°C .

Rated DC Current : The less value whith is Irms or Isat.

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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  $\mu$ m

### 5. Typical Performance Curves

