

# Power Inductor

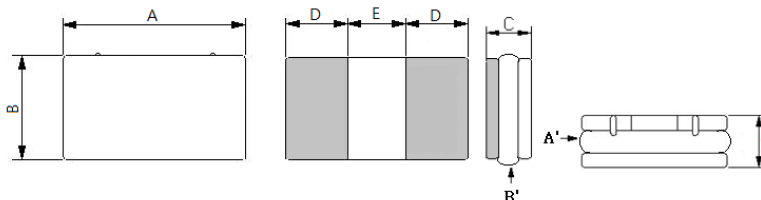
AHP160808RA-SERIES

## 1. Features

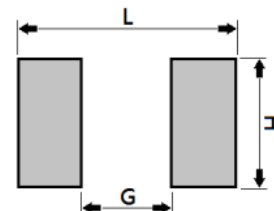
1. This specification applies Low Profile Power Inductors.
2. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
3. Operating temperature -40~+125℃ (Including self - temperature rise)



## 2. Dimension



### Recommended Land pattern

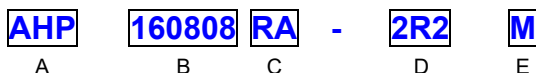


| Series      | A(mm)   | A'(mm)  | B(mm)   | B'(mm)  | C(mm)   | D(mm)    | E(mm)    |
|-------------|---------|---------|---------|---------|---------|----------|----------|
| AHP160808RA | 1.6±0.2 | 1.9 Max | 0.8±0.2 | 1.1 Max | 0.8 Max | 0.50 ref | 0.60 ref |

Units: mm

| L(mm) | G(mm) | H(mm) |
|-------|-------|-------|
| 1.80  | 0.60  | 0.96  |

## 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<br>(uH) ±20%<br>@ 0 A | Test<br>Frequency<br>(Hz) | I rms (A) |      | I sat (A) |      | DCR (Ω) |       |
|------------------|----------------------------------|---------------------------|-----------|------|-----------|------|---------|-------|
|                  |                                  |                           | Typ       | Max  | Typ       | Max  | Typ     | Max   |
| AHP160808RA-R24M | 0.24                             | 1V/1M                     | 2.50      | 2.10 | 4.00      | 3.50 | 0.070   | 0.084 |
| AHP160808RA-R33M | 0.33                             | 1V/1M                     | 2.20      | 1.90 | 3.00      | 2.50 | 0.090   | 0.108 |
| AHP160808RA-R47M | 0.47                             | 1V/1M                     | 1.90      | 1.70 | 2.60      | 2.20 | 0.110   | 0.132 |
| AHP160808RA-R68M | 0.68                             | 1V/1M                     | 1.50      | 1.30 | 2.00      | 1.60 | 0.180   | 0.216 |
| AHP160808RA-1R0M | 1.00                             | 1V/1M                     | 1.30      | 1.10 | 1.80      | 1.50 | 0.230   | 0.276 |
| AHP160808RA-1R5M | 1.50                             | 1V/1M                     | 0.80      | 0.70 | 1.50      | 1.20 | 0.400   | 0.480 |
| AHP160808RA-2R2M | 2.20                             | 1V/1M                     | 0.75      | 0.65 | 1.00      | 0.80 | 0.450   | 0.540 |
| AHP160808RA-3R3M | 3.30                             | 1V/1M                     | 0.70      | 0.60 | 0.90      | 0.70 | 0.700   | 0.840 |
| AHP160808RA-4R7M | 4.70                             | 1V/1M                     | 0.55      | 0.45 | 0.80      | 0.60 | 1.000   | 1.200 |
| AHP160808RA-6R8M | 6.80                             | 1V/1M                     | 0.40      | 0.35 | 0.65      | 0.55 | 1.800   | 2.160 |
| AHP160808RA-100M | 10.0                             | 1V/1M                     | 0.35      | 0.30 | 0.50      | 0.40 | 2.100   | 2.520 |

Note:

Isat: Saturation Current (Isat) will cause L0 to drop approximately 30%. @ ambient temp. 25℃

Irms: Heat Rated Current (Irms) will cause the coil temperature rise approximately ΔT of 40℃

Rated DC current: The lower value of Irms and Isat.

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 μm

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## 10. Typical Performance Curves

