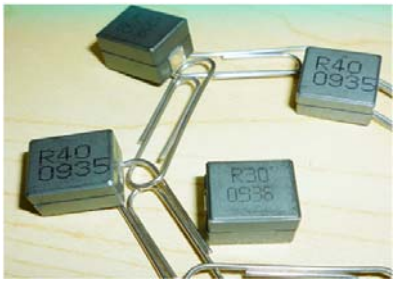
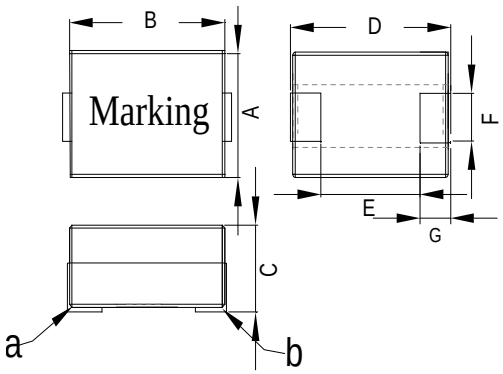
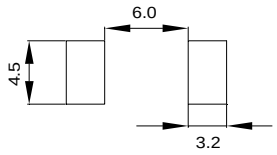
# AH4730 Series

## 1. Features:

· Ferrite based SMD Inductor with lower core loss.
· Custom values are welcomed.
· High current output chokes, upto 70 Amp with max. 20% roll off.
· Low Profile 7.5mm Max. height .
· Foot Print 12.1 x 10.0 mm Max.
· Ideal for Buck Converter, VRM & High Density Board Design.
· Operating up to 2 MHz application.
· Operating Temperature Range -55°C to + 130°C




**Suggested Pad Layout**

## 2. Electrical Characteristic of AH4730 Series:

| Part Number | Inductance (uH) ± 10% | DCR (mΩ) ± 7% | Isat[1] (A) @25℃ | Isat[2] (A) @45℃ | Isat[3] (A) @100℃ | Irms[4] (A) @25℃ |
|---|---|---|---|---|---|---|
| AH4730-R19KHF | 0.19 | 0.48 | 70 | 68 | 66 | 42 |
| AH4730-R24KHF | 0.24 | 0.48 | 64 | 59 | 54 | 42 |
| AH4730-R27KHF | 0.27 | 0.48 | 55 | 54 | 50 | 42 |
| AH4730-R30KHF | 0.30 | 0.48 | 46 | 45 | 41 | 42 |
| AH4730-R40KHF | 0.40 | 0.48 | 30 | 29 | 28 | 42 |
| AH4730-R51KHF | 0.51 | 0.48 | 27 | 24 | 23 | 42 |

## 3. Mechanical Dimension(Unit:mm):

| A Max. | B Max. | C Max. | D Max. | E Nom. | F Nom. | G Nom. |
|---|---|---|---|---|---|---|
| 10.0 | 11.7 | 7.5 | 12.1 | 7.0 | 3.8 | 2.5 |

**Note:**

1.Open Circuit Inductance (OCL) test condition: At 500KHz,0.25Vrms;

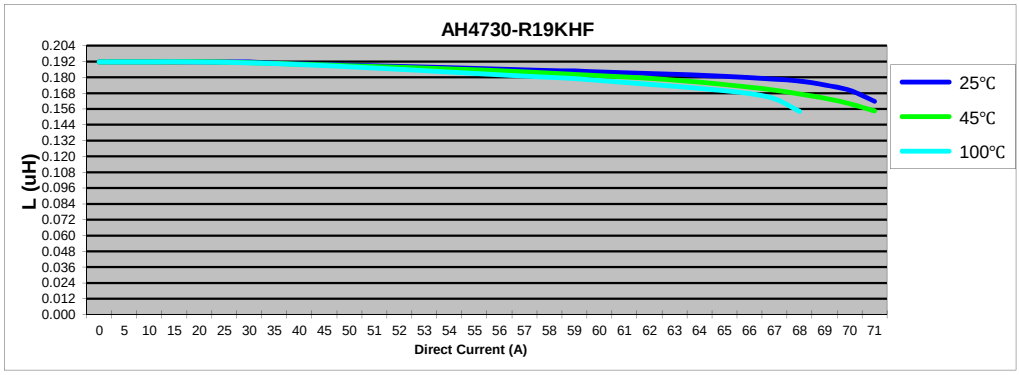
2.Full Load Inductance (FLL) Test condition(Isat): At 500KHz,0.25Vrms ;(Ta=25℃).

3.Isat[1],Isat[2] & Isat[3]: DC current that will cause inductance to drop approximately by 20% ;(Ta=25℃).

4. Irms: DC current for an approximate temperature rise of 40℃ without core loss,.Derating is necessary for AC currents. PCB pad layout, trace thickness and width, air-flow and proximity of other heat generating components will affect the temperature rise. It is recommended the part temperature not exceed 130°C under worst case operating conditions verified in the end application.

5.The nominal DCR is measured from point "a" to point"b",as shown above on the mechanical drawing;

## 4. Inductance characteristics:

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Revision D: 11/18/11

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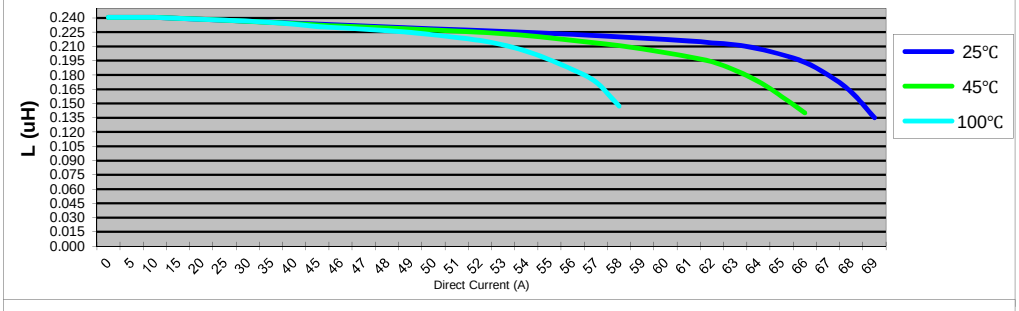


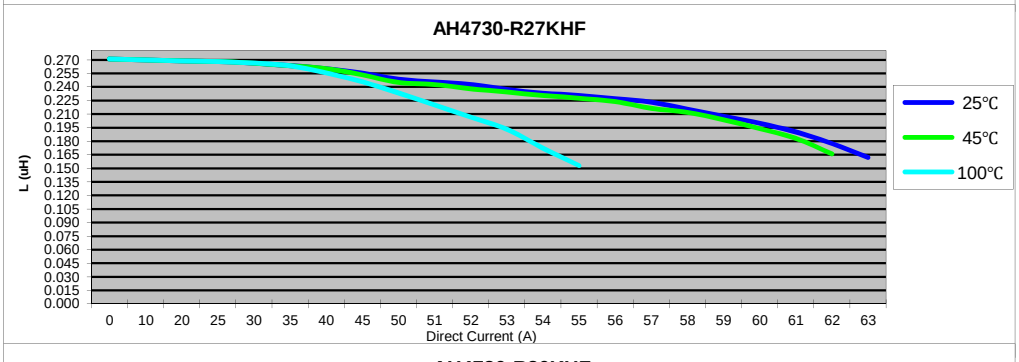


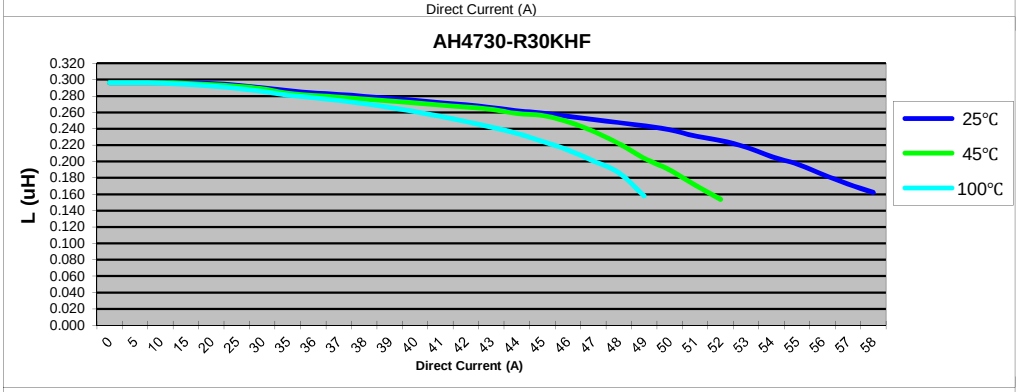


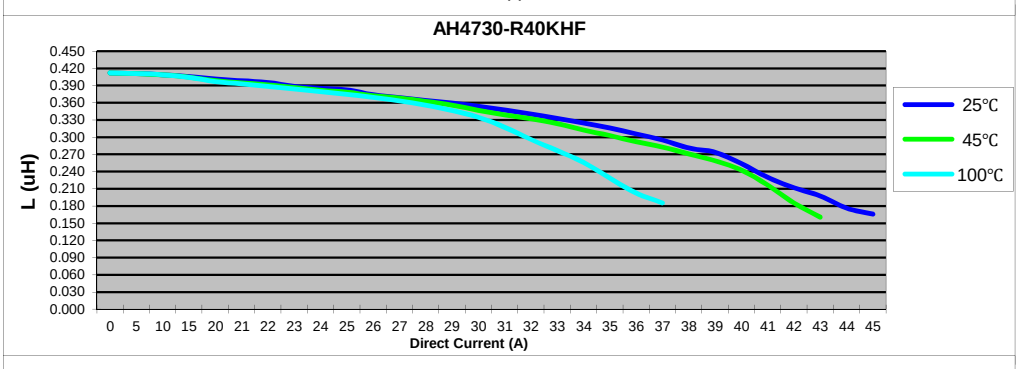


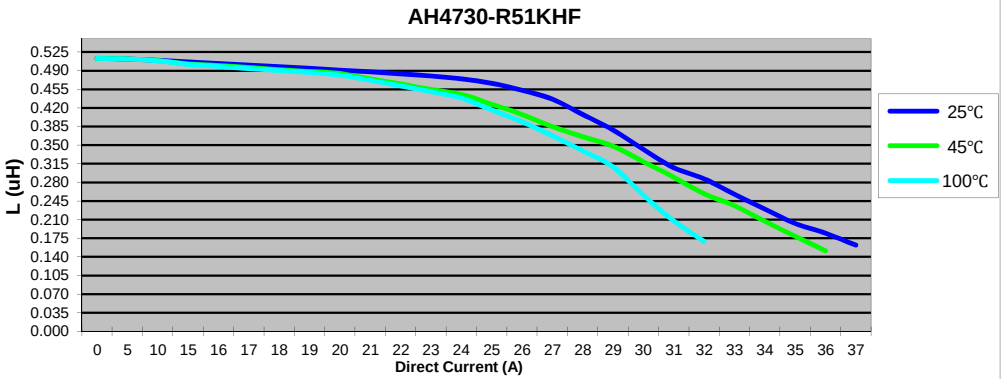



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