

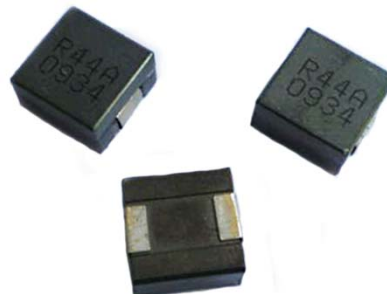


AH4731A Series



1. Features of AH4731A Series:

- Ferrite based SMD inductor with lower core loss.
- Inductance range: 125.0nH to 610.0nH , custom values are welcomed.
- High current output chokes of up to 53.0 Amp with approx. 20% roll off.
- Low profile 4.0mm maximum height
- 12.10 x 10.00mm foot print.
- Ideal for Buck Converter, VRM & High Density Board Design.
- Operating frequency of up to 5.0 MHz
- Operating temperature range of -55° C to + 130° C
- RoHS & HF compliant.



2. Electrical Characteristics of AH4731A Series:

Part Number	Inductance (uH) ±10%	DCR (mΩ) ± 5.0%	Isat ¹ (A) @25°C	Isat ² (A) @75°C	Isat ³ (A) @100°C	Irms (A) @25°C
AH4731A-R18KHF	0.18	0.29	76.0	71.0	70.0	54.0

3. Mechanical Dimension of AH4731A Series:

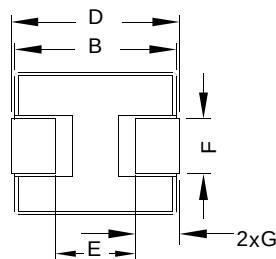
A Max.	B Max.	C Max.	D Max.	E Ref.	F Nom.	G Nom.
10.0	11.7	7.9	12.3	7.0	2.2	2.5

Third Angle Projection:

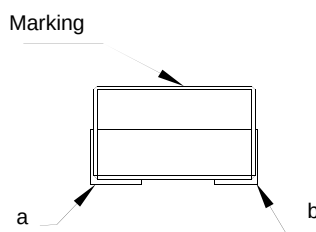


Part Marking:

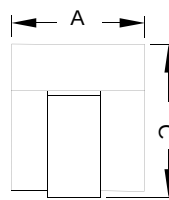
xxxxX: xxxx is inductance value in uH (R:decimal point) X is part code
ITGYYWW: ITG: Company name, YYWW: Date code.



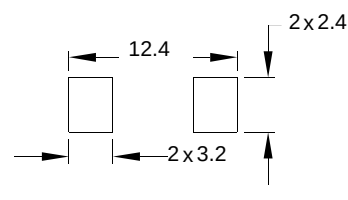
Bottom View



Front View



Side View



Suggested Pad Layout

Notes:

1. Open Circuit Inductance (OCL) test condition: 500KHz, 0.25Vrms, 0A DC at 25°C.
2. Full Load Inductance (FLL) Test condition: 500KHz, 0.25Vrms, Isat; (Ta=25°C).
3. The nominal DCR is measured from point "a" to point "b" as shown above in the mechanical drawing (Ta=25°C).
4. Isat1, Isat2 and Isat3: DC current that will cause inductance to drop approximately by 20%; (Ta=25°C)
5. Irms: DC current for an approximate temperature rise of 40°C without core loss.
6. Derating is necessary for AC currents. Verify and check PCB pad layout, trace thickness, width, air-flow and proximity of other heat generating components as it will have an effect on the temperature rise.
7. It is recommended that the part temperature should not exceed 130° C under worst operating conditions.

● New York 1 914 347 2474 ● Taipei 886 2 2698 8669 ● Kaohsiung 886 7 350 2275
 ● Japan 81 568 85 2830 ● Shenzhen 86 755 8418 6263 ● Shanghai 86 21 5424 5141 ● Hong Kong 852 9688 9767
 ● sales@ITG-Electronics.com ● www.ITG-Electronics.com Revision B: June 28 , 2016

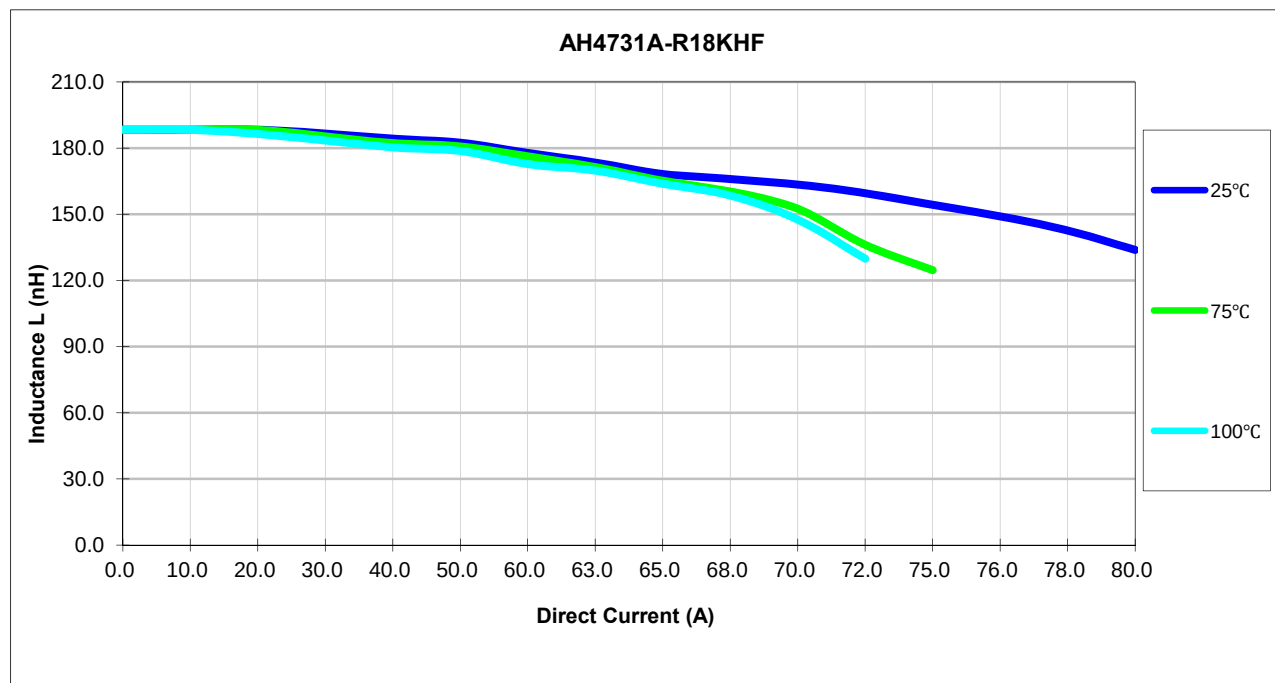
*Due to continuous product improvement, all specifications are subject to change without prior notice. Kindly contact an ITG field application engineer or a sales representative prior to purchase.



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4. Inductance Characteristics (Inductance vs. Current):



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