



AH4018 Series



1. Features of AH4018 Series:

- Ferrite based SMD inductor with lower core loss.
- Inductance range: 85.0nH to 300.0nH , custom values are welcomed.
- High current output chokes of up to 70.0+ Amp with approx. 20% roll off.
- Low profile 5.0mm typical height
- 10.00 x 7.0mm 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 AH4018 Series:

ITG Part Number	Inductance (uH) 10%, 15%, 20%	DCR (mΩ) ±7%	Isat ¹ (A) @25°C	Isat ² (A) @45°C	Isat ³ (A) @100°C	Irms (A) @25°C
AH4018*-R08KHF	0.085 , 10%	See notes *	70.0+	70+	70.0	See notes *
AH4018*-R10LHF	0.100 , 15%	See notes *	68.0	65.0	56.0	See notes *
AH4018*-R12LHF	0.120 , 15%	See notes *	57.0	56.0	49.0	See notes *
AH4018*-R15LHF	0.150 , 15%	See notes *	42.0	40.0	36.0	See notes *
AH4018*-R20LHF	0.200 , 15%	See notes *	33.0	32.0	27.0	See notes *
AH4018*-R30MHF	0.300 , 20%	See notes *	22.0	20.0	16.0	See notes *

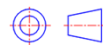
*Notes:

A:DCR: 0.43, Irms: 30.0 **B**:DCR: 0.33, Irms: 33.0 **C**:DCR: 0.28, Irms: 34.0 **D**:DCR: 0.40, Irms: 31.0 **E**:DCR: 0.39, Irms: 31.5

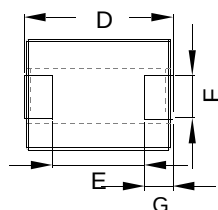
3. Mechanical Dimension of AH4018 Series:

A	B	C	D	E	F	G
Max.	Max.	Max.	Max.	Nom.	Nom.	Nom.
7.0	9.5	5.0	10.0	6.1	2.7	1.6

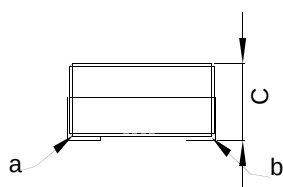
Third Angle Projection:
Part Marking:



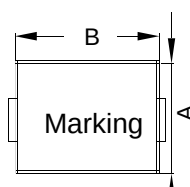
xxxxX: xxxx is inductance value in uH (R:decimal point) X is part code
YYWW: Company name, YYWW: Date code.



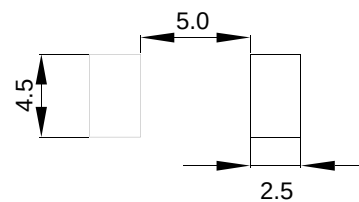
Bottom View



Side View



Top 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.
4. Isat1, Isat2 and Isat3: DC current that will cause inductance to drop approximately by 20%.
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 F: July 1 , 2016

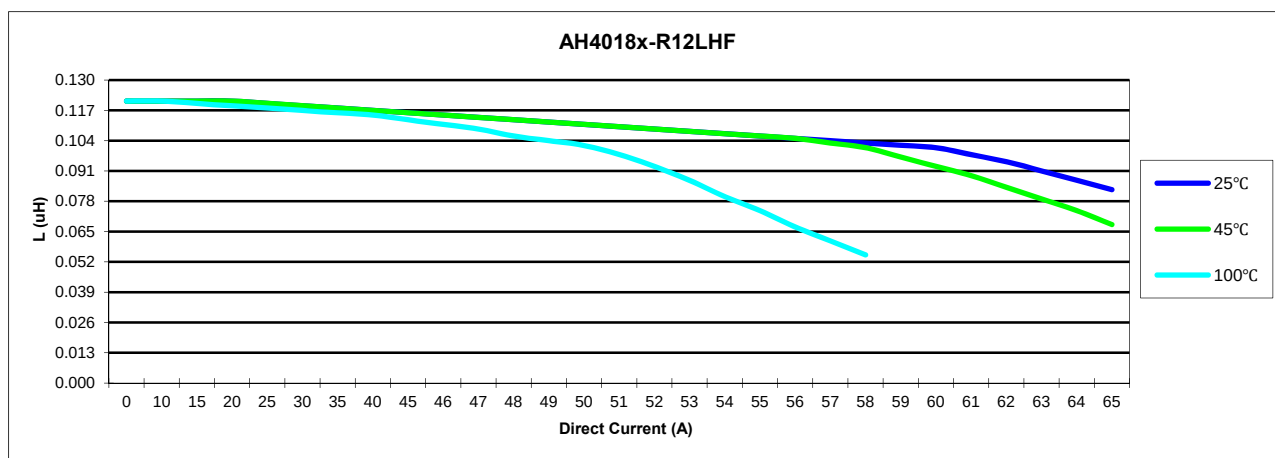
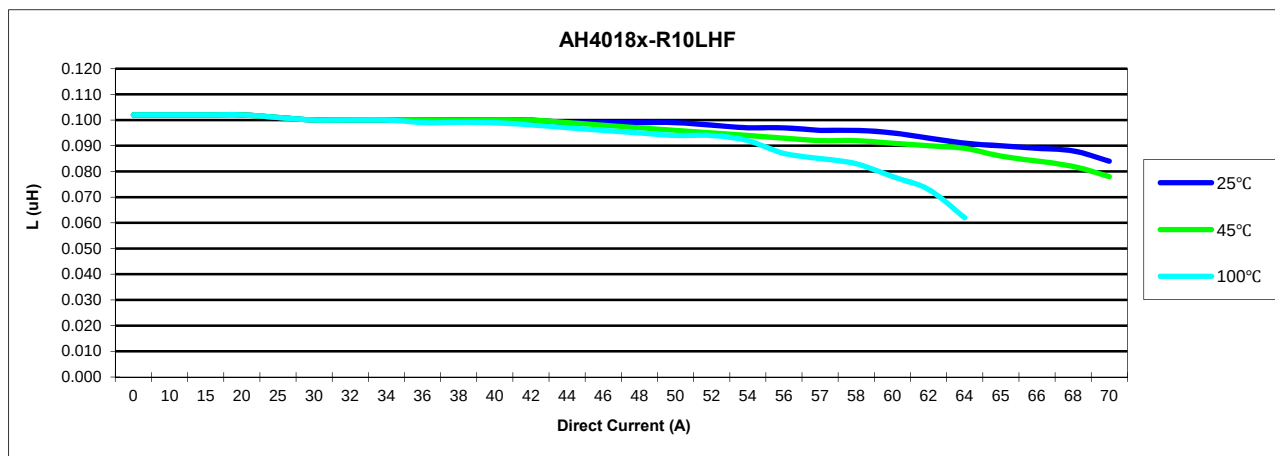
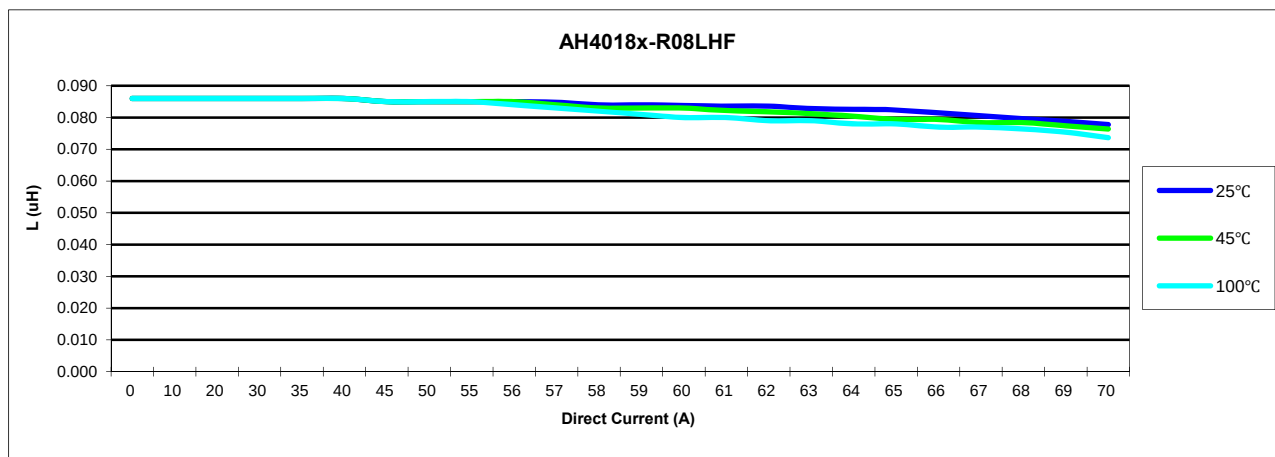
*Due to continuous product improvement, all specifications are subject to change without prior notice. Kindly contact an ITG field application engineer or a sales representative prior to purchase.



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4. Inductance Characteristics of AH4018A Series (Inductance vs Current):



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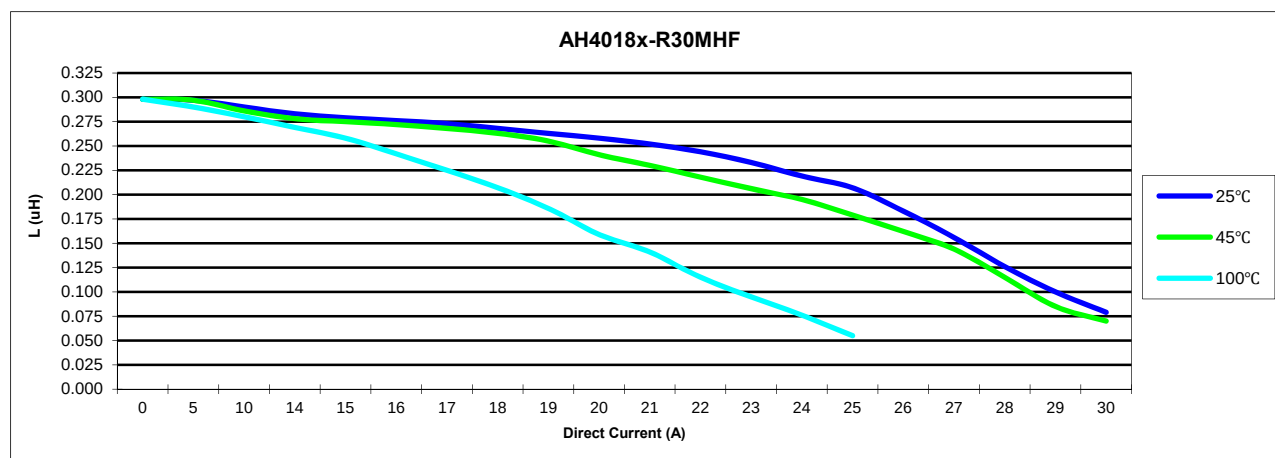
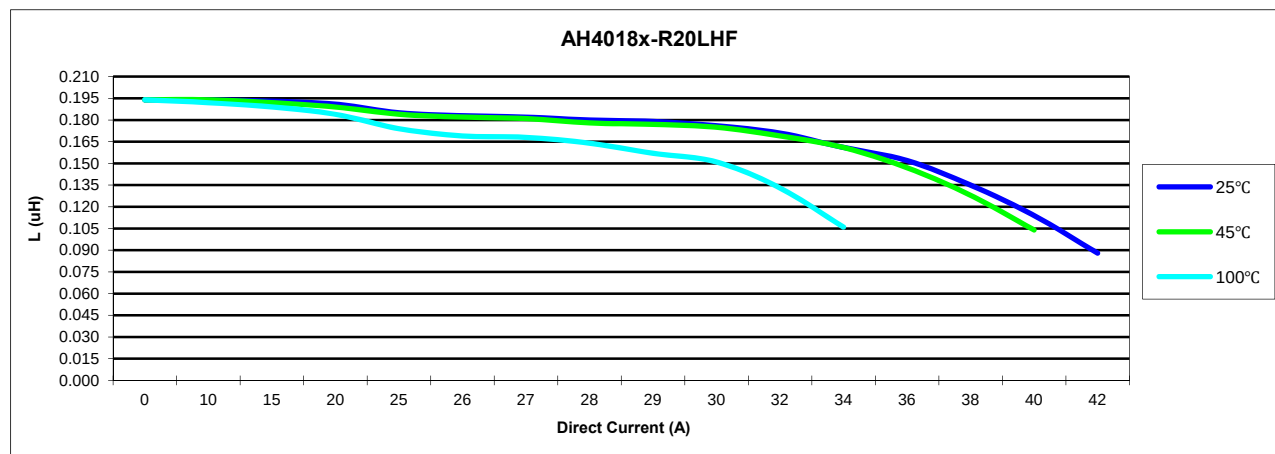
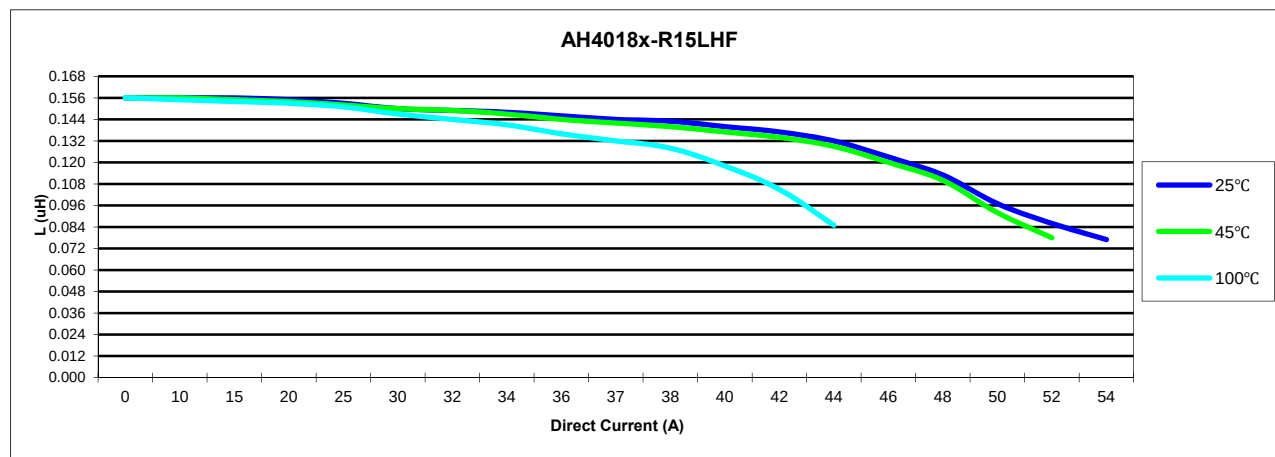
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