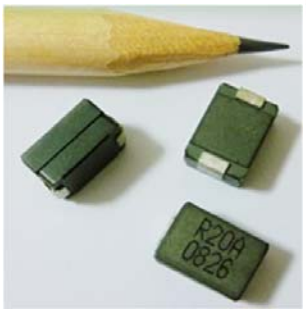
AH4018 Series



1. Features:

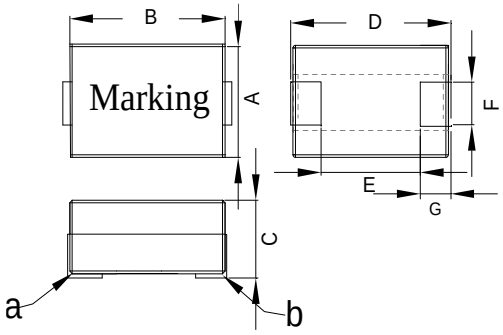
· Ferrite based SMD Inductor with lower core loss.
· Inductance Range:80nH to 300nH. Custom values are welcomed.
· High current output chokes, upto 70+ Amp with max. 20% roll off.
· Low Profile 5.0mm Max. height .
· Foot Print 10.0 x 7.0 mm Max.
· Ideal for Buck Converter, VRM & High Density Board Design.
· Operating up to 2 MHz application.
· Operating Temperature Range -55°C to + 130°C; RoHS compliant.

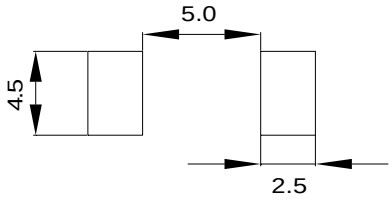
2. Electrical Characteristic of AH4018 Series:

Part Number	Inductance (uH) 10%,15%,20%	DCR (mΩ) ±7%	Isat[1] (A) @25℃	Isat[2] (A) @45℃	Isat[3] (A) @100℃	Irms (A) @25℃
AH4018A-R08KHF	0.085 , 10%	0.43	70+	70+	70	30.0
AH4018B-R08KHF	0.085, 10%	0.33	70+	70+	70	33.0
AH4018C-R08KHF	0.085 , 10%	0.28	70+	70+	70	34.0
AH4018D-R08KHF	0.085 , 10%	0.40	70+	70+	70	31.0
AH4018E-R08KHF	0.085 , 10%	0.39	70+	70+	70	31.5
AH4018A-R10LHF	0.10 , 15%	0.43	68	65	56	30.0
AH4018B-R10LHF	0.10 , 15%	0.33	68	65	56	33.0
AH4018C-R10LHF	0.10 , 15%	0.28	68	65	56	34.0
AH4018D-R10LHF	0.10 , 15%	0.40	68	65	56	31.0
AH4018E-R10LHF	0.10 , 15%	0.39	68	65	56	31.5
AH4018A-R12LHF	0.12 , 15%	0.43	57	56	49	30.0
AH4018B-R12LHF	0.12 , 15%	0.33	57	56	49	33.0
AH4018C-R12LHF	0.12 , 15%	0.28	57	56	49	34.0
AH4018D-R12LHF	0.12 , 15%	0.40	57	56	49	31.0
AH4018E-R12LHF	0.12 , 15%	0.39	57	56	49	31.5
AH4018A-R15LHF	0.15 , 15%	0.43	42	40	36	30.0
AH4018B-R15LHF	0.15 , 15%	0.33	42	40	36	33.0
AH4018C-R15LHF	0.15 , 15%	0.28	42	40	36	34.0
AH4018D-R15LHF	0.15 , 15%	0.40	42	40	36	31.0
AH4018E-R15LHF	0.15 , 15%	0.39	42	40	36	31.5
AH4018A-R20LHF	0.20 , 15%	0.43	33	32	27	30.0
AH4018B-R20LHF	0.20 , 15%	0.33	33	32	27	33.0
AH4018C-R20LHF	0.20 , 15%	0.28	33	32	27	34.0
AH4018D-R20LHF	0.20 , 15%	0.40	33	32	27	31.0
AH4018E-R20LHF	0.20 , 15%	0.39	33	32	27	31.5
AH4018A-R30MHF	0.30 , 20%	0.43	22	20	16	30.0
AH4018B-R30MHF	0.30 , 20%	0.33	22	20	16	33.0
AH4018C-R30MHF	0.30 , 20%	0.28	22	20	16	34.0
AH4018D-R30MHF	0.30 , 20%	0.40	22	20	16	31.0
AH4018E-R30MHF	0.30 , 20%	0.39	22	20	16	31.5

3. Mechanical Dimension(Unit:mm):

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





Suggested Pad Layout

Note:1.Open Circuit Inductance (OCL) test condition: 500KHz,0.25Vrms ,0Adc,at 25℃.
2.Full Load Inductance (FLL) Test condition: 500KHz,0.25Vrms ,Isat;(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(△T) 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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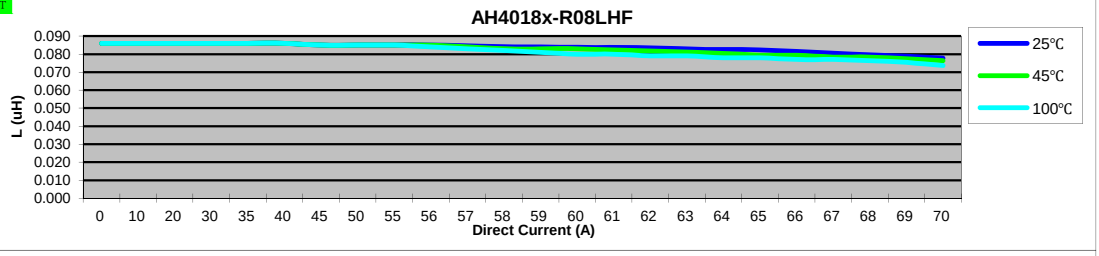

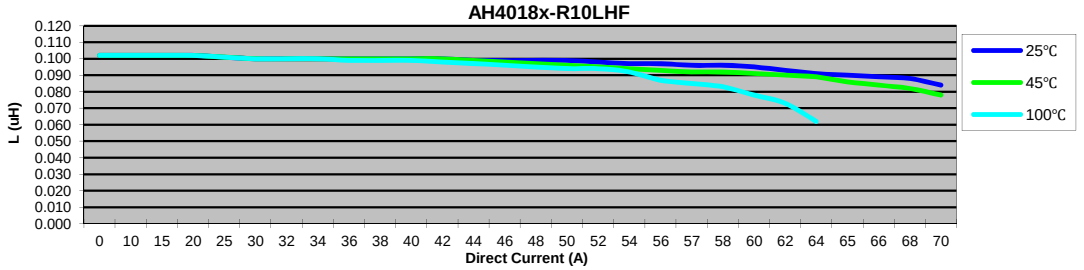

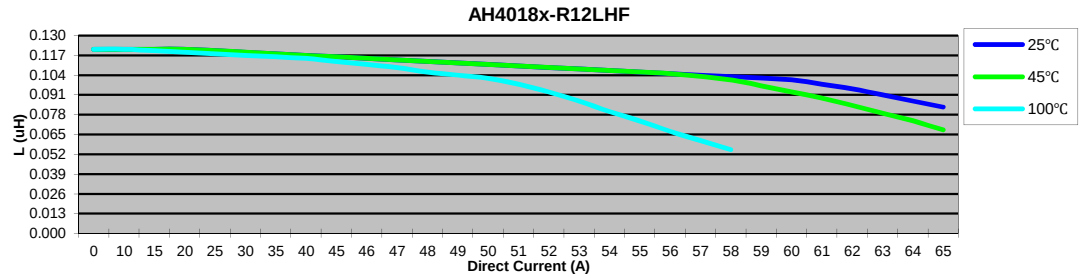

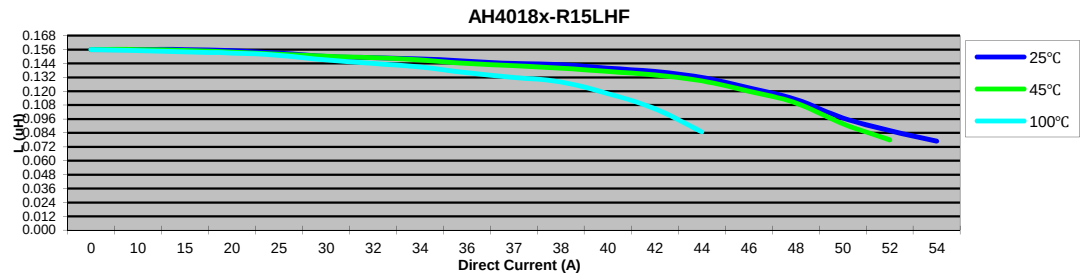

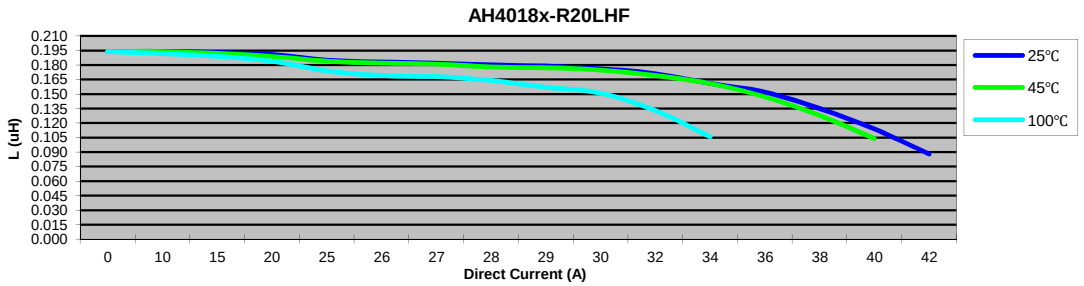

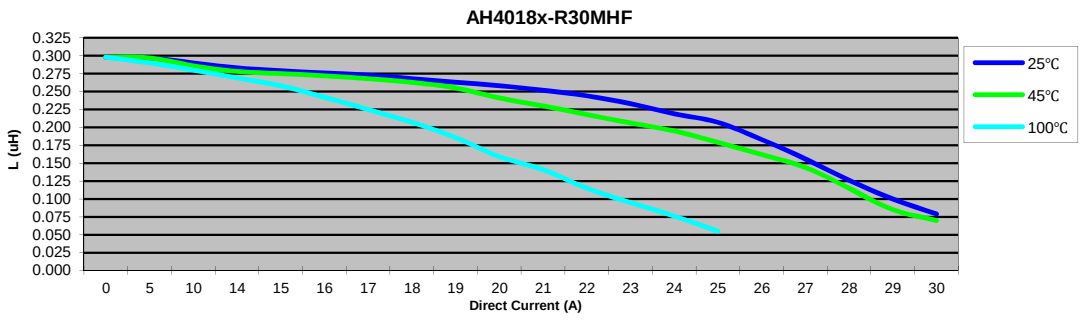

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