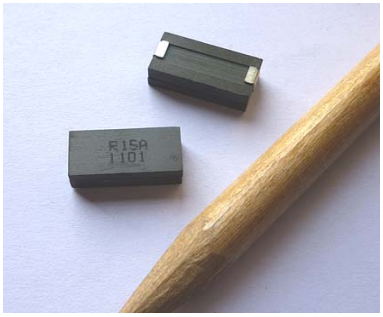
SL5920 Series

1. Features:



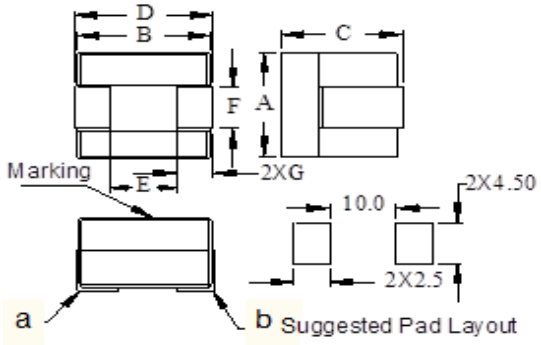
- Ferrite based SMD Inductor with lower core loss.
- Inductance Range:100nH to 400nH , Custom values are welcomed.
- High current output chokes, upto 106.0 Amp with approx. 20% roll off.
- Low Profile 5.00mm Max. Height .
- 15.00 x 7.00mm foot print.
- Ideal for Buck Converter, VRM & High Density Board Design.
- Operating frequency up to 1 MHz application.
- Operating Temperature Range -55°C to + 130°C , RoHs & HF compliance .
- T & R Qtys: 1000 pcs , 13" Reel ;

2. Electrical Characteristic of SL5920 Series:

Part Number	Inductance (nH) ± 10% or 15%	DCR (mΩ) ± 7.0%	Isat[1] (A) @25℃	Isat[2] (A) @75℃	Isat[3] (A) @100℃	Irms (A) @25℃
SL5920A-R10KHF	100 , 10%	0.47	106.00	100.00	96.00	53.00
SL5920A-R12KHF	120 , 10%	0.47	89.00	84.00	80.00	53.00
SL5920A-R15KHF	150 , 10%	0.47	72.00	66.00	62.00	53.00
SL5920A-R18KHF	180 , 10%	0.47	64.00	56.00	52.00	53.00
SL5920A-R23KHF	230 , 10%	0.47	44.00	40.00	37.00	53.00
SL5920A-R30LHF	300 , 15%	0.47	35.00	32.00	28.00	53.00
SL5920A-R40LHF	400 , 15%	0.47	24.00	22.00	21.00	53.00

3. Mechanical Dimension(unit: mm):

A Max.	B Max.	C Max.	D Max.	E Nom.	F ± 0.20	G ± 0.20
7.00	14.85	5.00	15.00	11.80	2.80	1.52



Note:

1>.Open Circuit Inductance (OCL) test condition:100KHz,0.1Vrms,0Adc ,at 25 ℃.

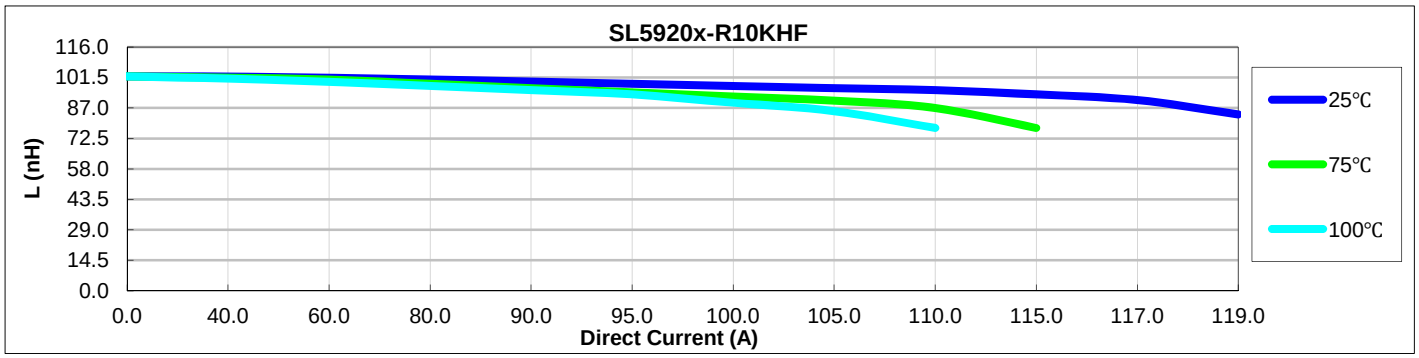
2>.Full Load Inductance (FLL) Test condition:100KHz,0.1Vrms ,Isat ;(Ta=25 ℃).

3>.Isat[1],Isat[2]&Isat[3]: DC current that will cause inductance to drops approximately by 20%;

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 (Inductance vs. Current):



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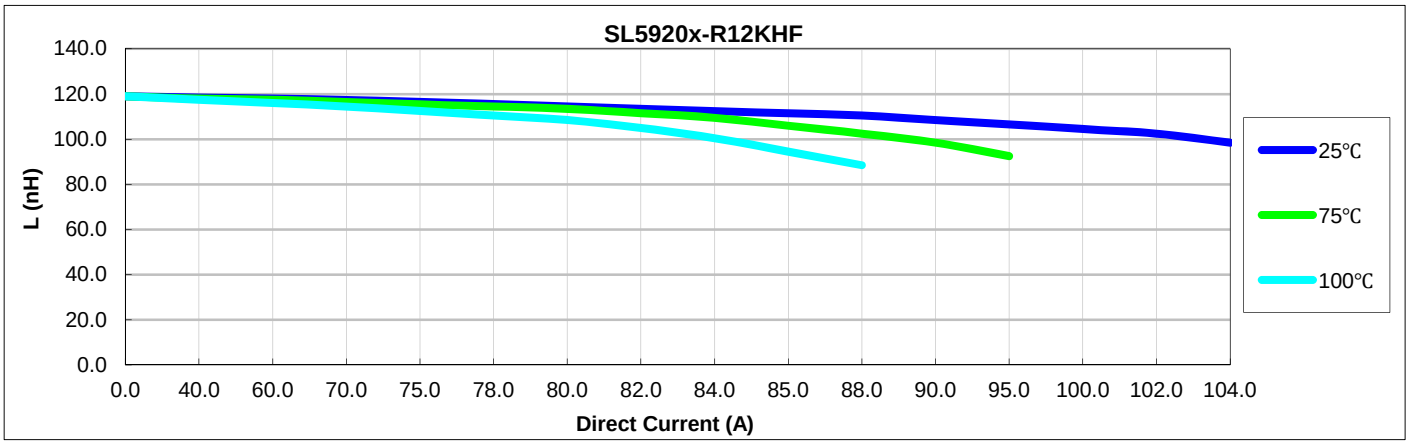
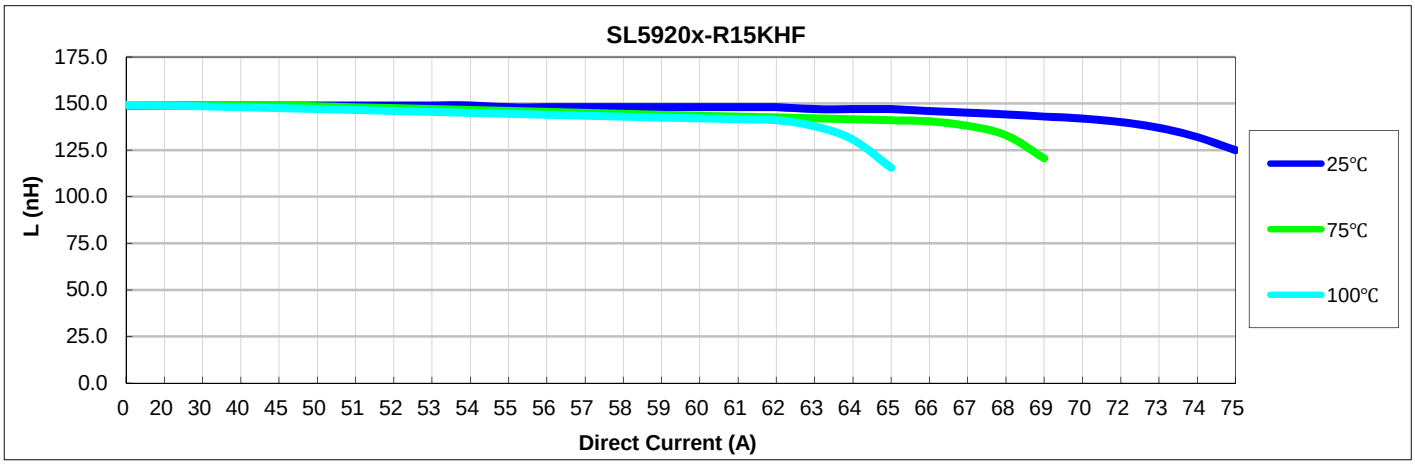
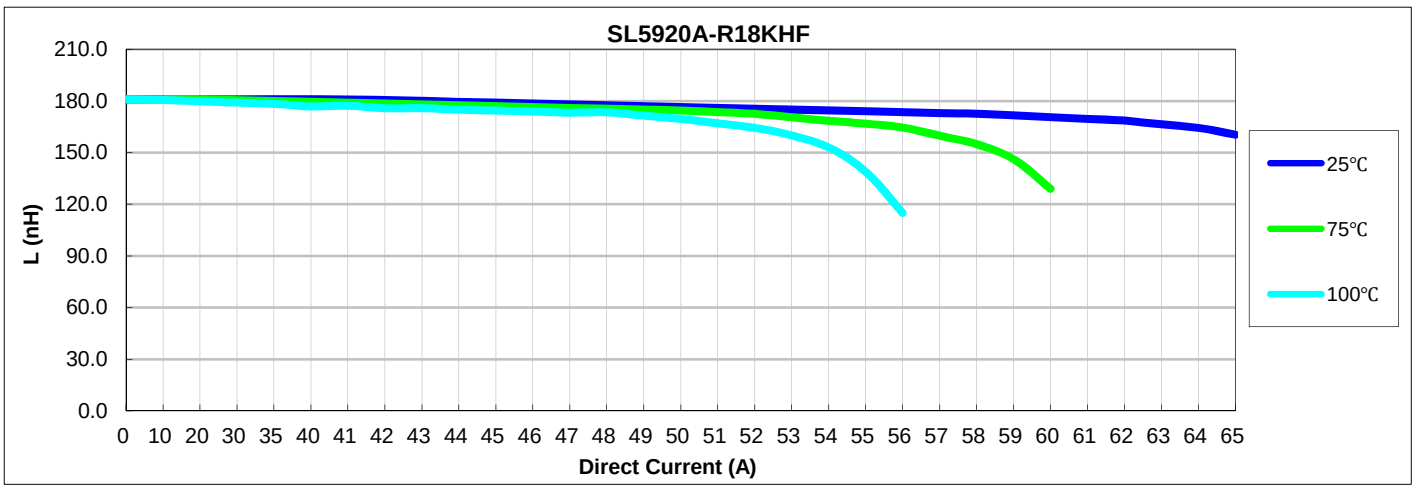
Inductance vs. Current







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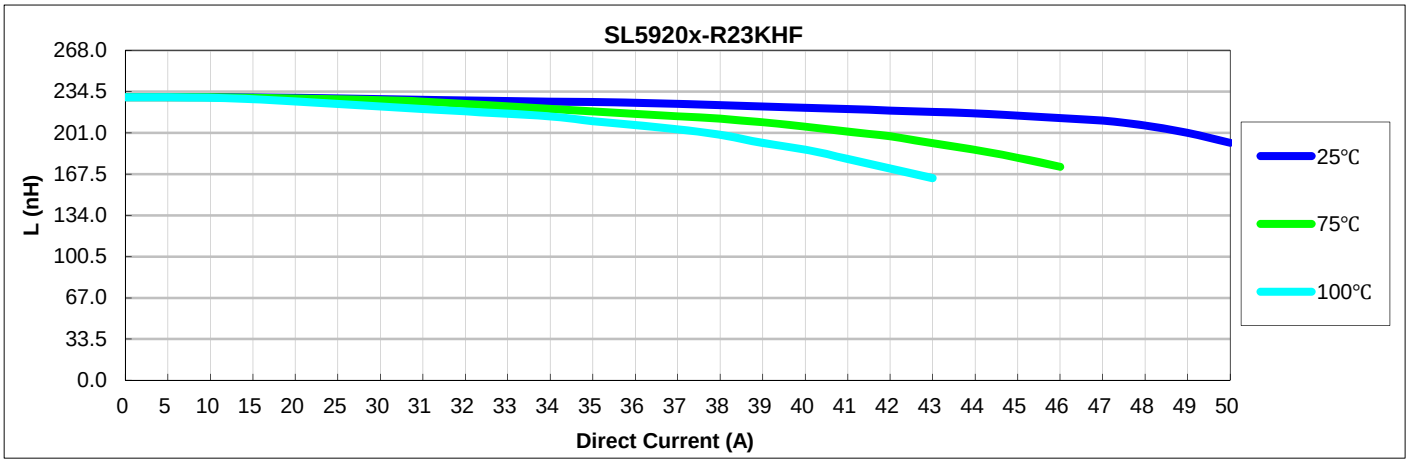
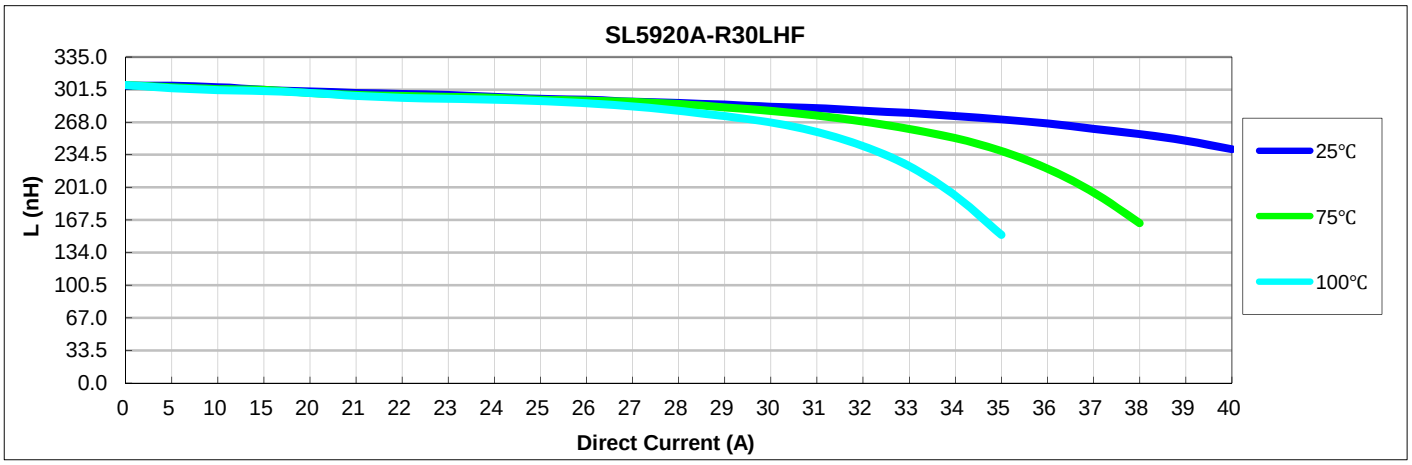
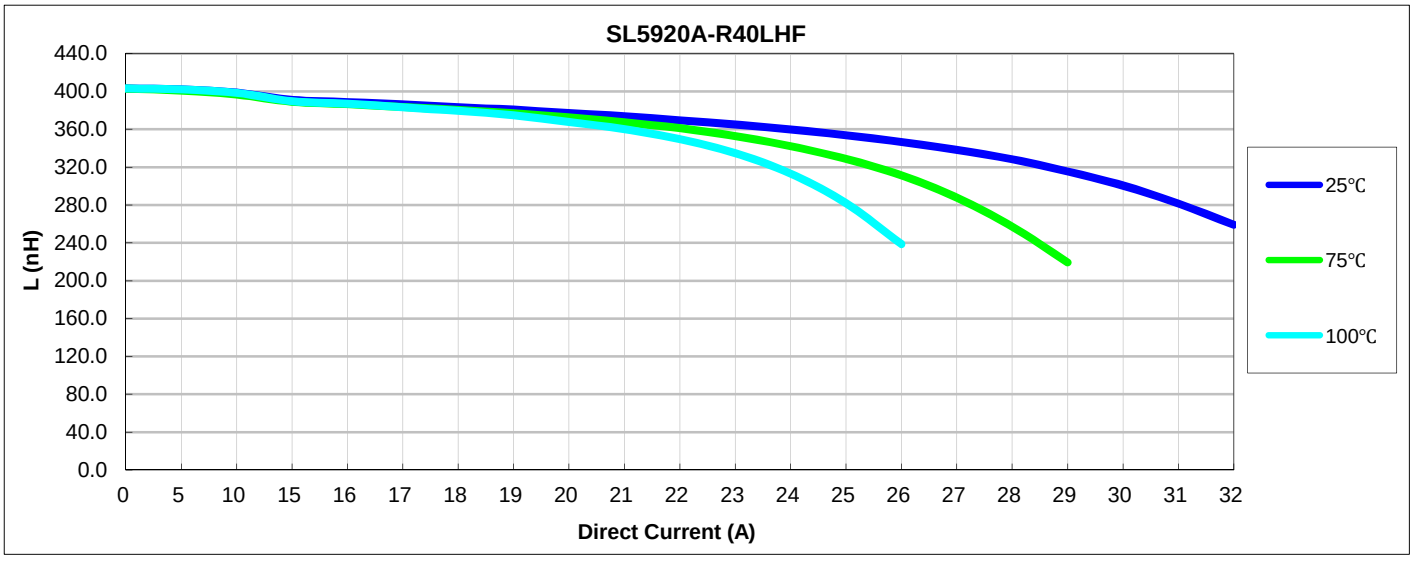
Inductance vs. Current







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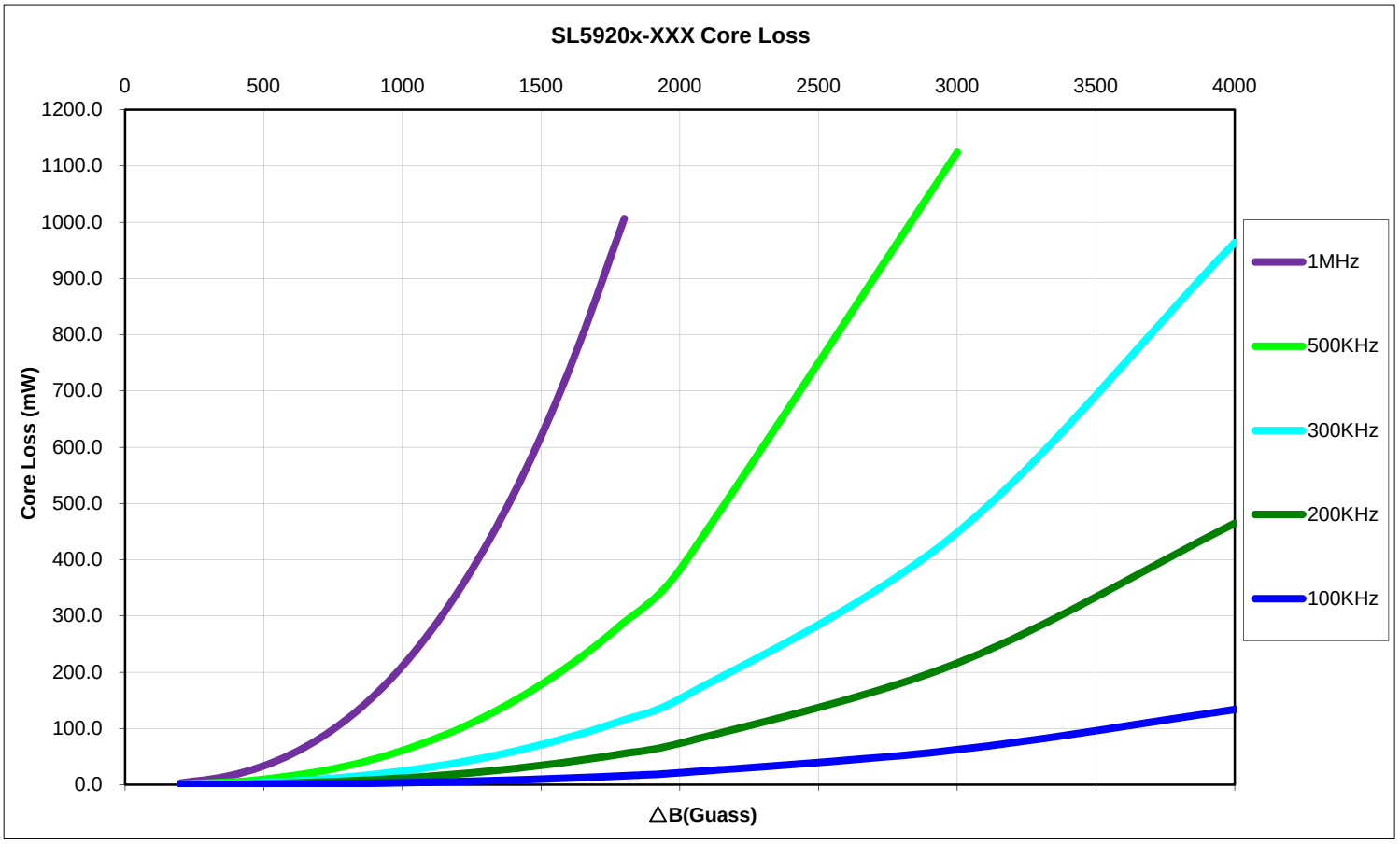
5. Core Loss:



Where △B=0.353*L(nH)*△I