

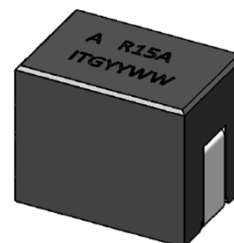


AH3933 Series



1. Features of AH3933 Series:

- Ferrite based SMD inductor with lower core loss.
- Inductance range: 65.0 nH to 150.0 nH , custom values are welcomed.
- High current output chokes , up to 110.0 Amp with approx. 20% roll off.
- Low Profile 8.50 mm max height .
- 10.00 x 6.40 mm Foot Print.
- Ideal for Buck Converter, VRM & High Density Board Design.
- Operating frequency of up to 5.0MHz.
- Operating temperature range of -55° C to + 130° C.
- RoHS & HF compliant.
- T & R Qty's: 550pcs, 13" Reel.

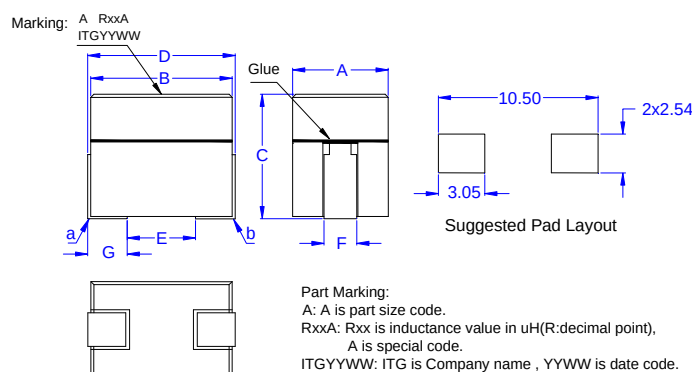


2. Electrical Characteristics of AH3933 Series:

ITG Part Number	OCL ¹ (nH) ± 10% or 15%	L @ Isat1 ² (nH) Min.	DCR ³ (mΩ) ± 5.0%	Isat1 ⁴ (A) @25°C	Isat2 ⁴ (A) @75°C	Isat3 ⁴ (A) @100°C	Irms ⁵ (A) @25°C
AH3933A-65LHF	65.0 ± 15%	46.80	0.200	110.00	100.00	95.00	61.00
AH3933A-90KHF	90.0 ± 10%	64.80	0.200	105.00	100.00	93.00	61.00
AH3933A-R12KHF	120.0 ± 10%	86.40	0.200	75.00	70.00	68.00	61.00
AH3933A-R15KHF	150.0 ± 10%	108.00	0.200	58.00	55.00	52.00	61.00

3. Mechanical Dimension of AH3933 Series:

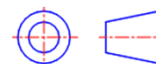
A	B	C	D	E	F	G
Max.	Max.	Max.	Max.	Ref.	±0.20	±0.30
6.40	9.50	8.50	10.00	5.00	2.20	2.50



Notes:

1. Open Circuit Inductance (OCL) test condition: 500KHz, 0.25Vrms, 0A DC at 25°C.
2. L @ Isat and L @ Irms Test condition: 500KHz, 0.25Vrm (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 & 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. PCB pad layout , trace thickness and width , air-flow and proximity of other heat generating components will affect the temperature rise.
6. It is recommended the part temperature not exceed 130° C under worst case operating conditions as verified in the end application.

Third Angle Projection:



● 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 C.0: November 28, 2017

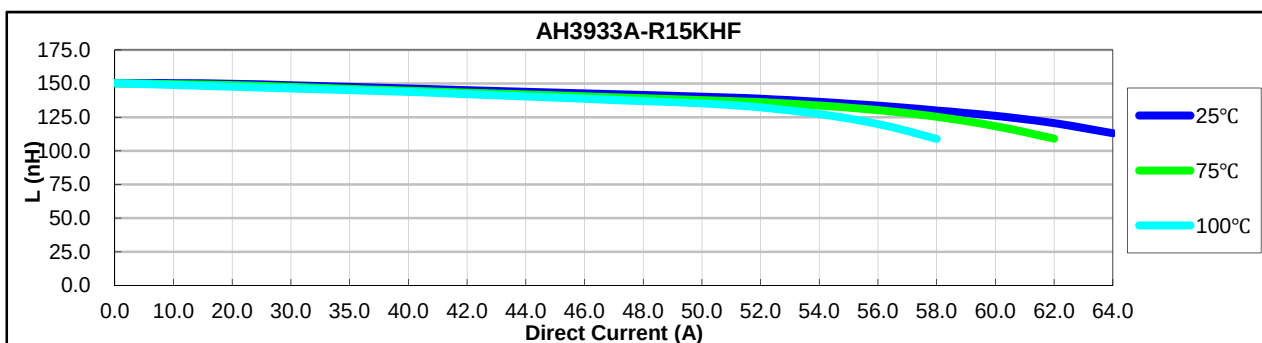
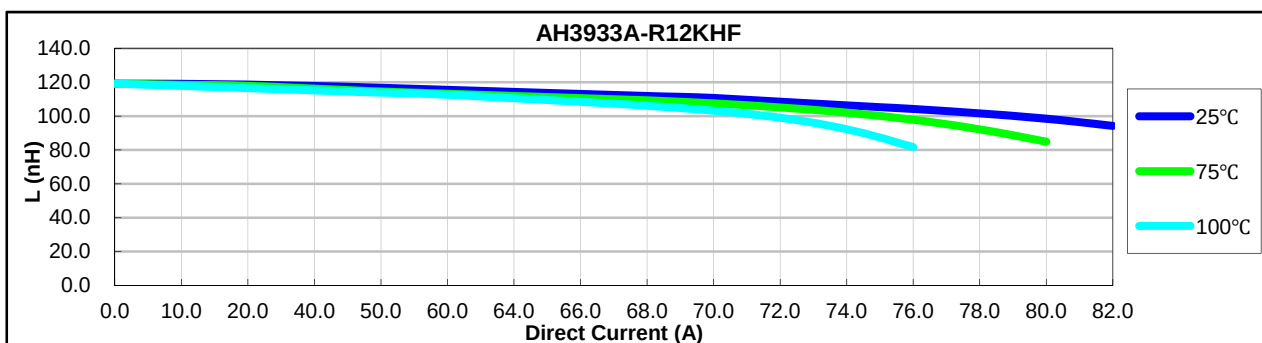
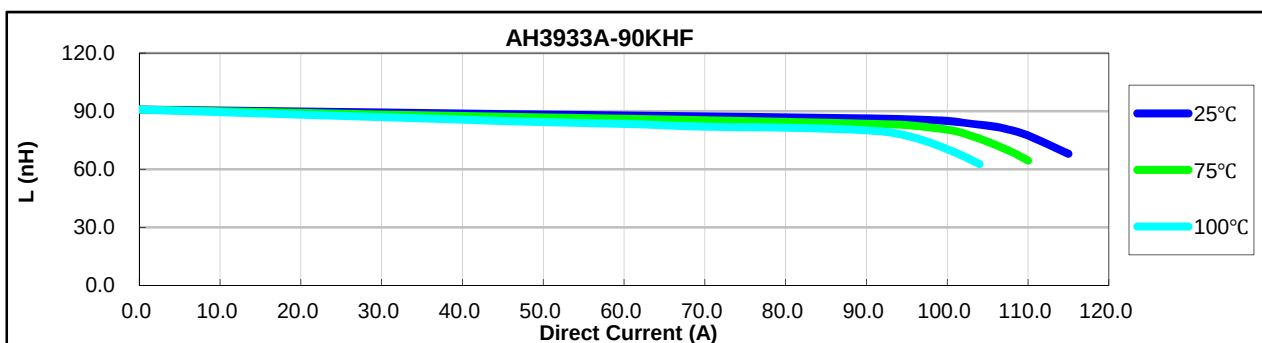
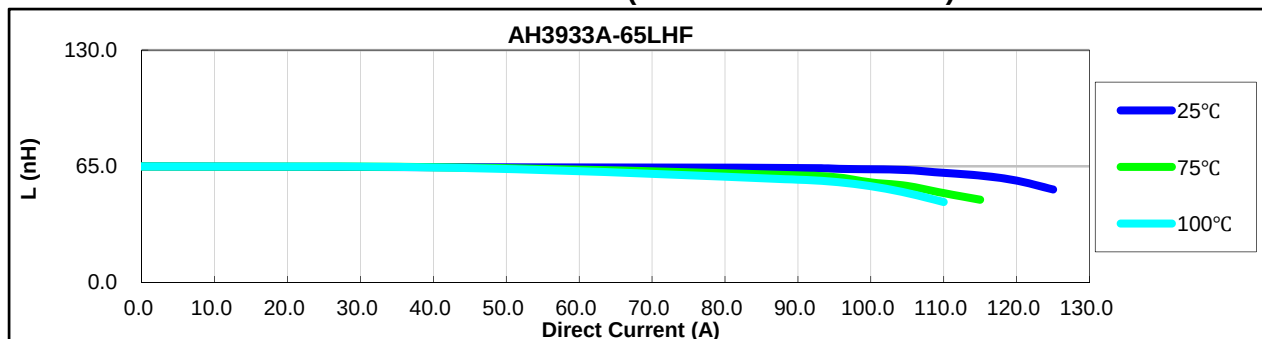
*Due to continuous product improvement, all specifications are subject to change without prior notice. Kindly contact an ITG field application engineer or a sales representative prior to purchase.



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4. Inductance Characteristics of AH3933 Series (Inductance vs Current):



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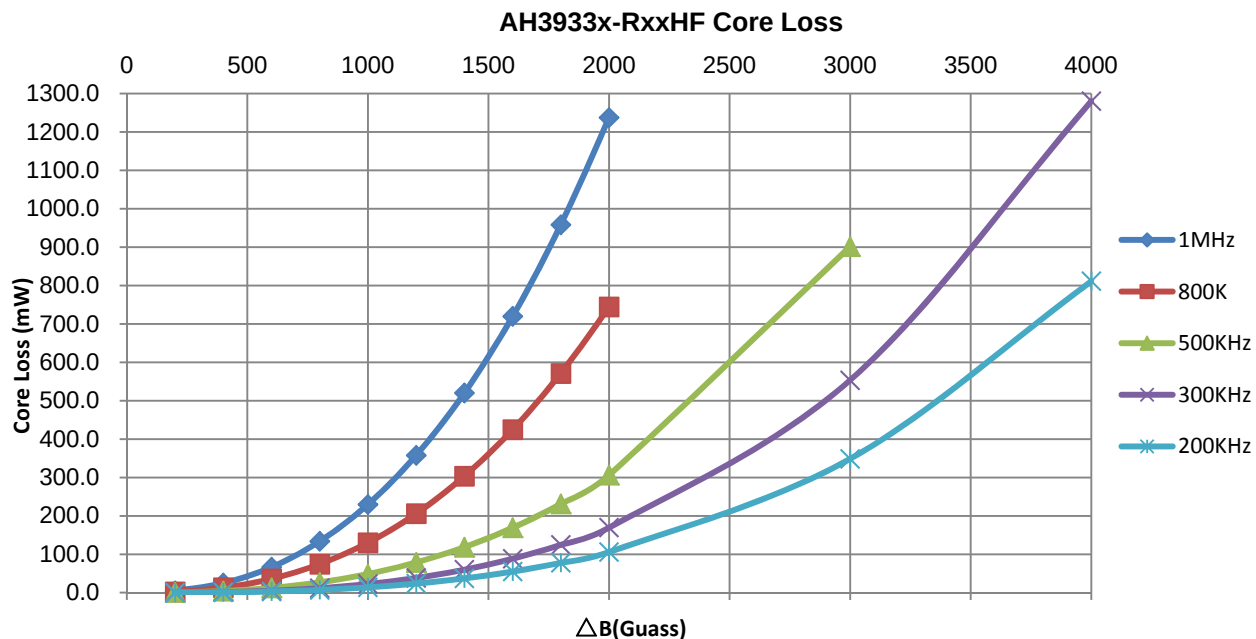
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5. Core Loss:



Where $\Delta B = 0.40 \cdot L(nH) \cdot \Delta I$

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