

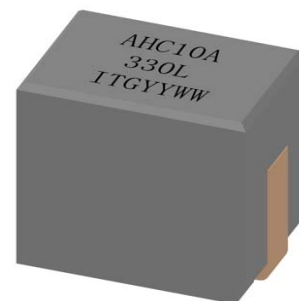


AHC10 Series



1. Features of AHC10 Series :

- Ferrite based SMD inductor with lower core loss.
- Inductance Range: 100.0 nH to 330.0 nH , custom values are welcomed.
- High current output chokes, up to 105.0 Amp with approx. 20% roll off.
- Low Profile 10.00 mm height typical.
- Foot Print 10.60 x 7.30 mm max.
- Perfect for high density designs with limited board space.
- Operating frequency up to 2.0 MHz.
- Operating Temperature Range -55°C to + 130°C. RoHS & HF compliant.
- T & R Qtys: 350 pcs , 13" Reel.

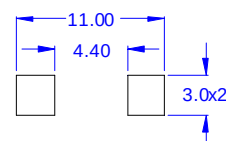
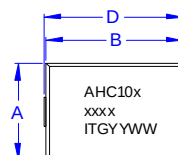


2. Electrical Characteristics of AHC10 Series:

ITG Part Number	OCL ¹ (nH) ± 15%	L @ Isat1 ² (nH) Min.	DCR ³ (mΩ) ± 10%	Isat1 ⁴ (A) @25°C	Isat2 ⁴ (A) @75°C	Isat3 ⁴ (A) @100°C	Irms ⁵ (A) @25°C
AHC10A-100L	100.00	70.00	0.19	105.00	95.00	90.00	62.00
AHC10A-120L	120.00	84.00	0.19	95.00	88.00	82.00	62.00
AHC10A-150L	150.00	105.00	0.19	80.00	73.00	68.00	62.00
AHC10A-180L	180.00	126.00	0.19	65.00	60.00	54.00	62.00
AHC10A-220L	220.00	154.00	0.19	51.00	48.00	44.00	62.00
AHC10A-270L	270.00	189.00	0.19	42.00	39.00	35.00	62.00
AHC10A-330L	330.00	231.00	0.19	35.00	31.00	30.00	62.00

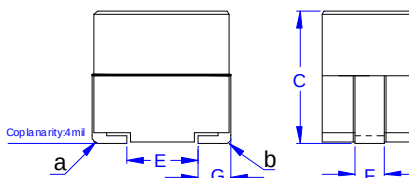
3. Mechanical Dimension of AHC10 Series:

A Max.	B ± 0.30	C ± 1.00	D Max.	E ± 0.20	F ± 0.20	G ± 0.20
7.30	10.20	10.00	10.60	4.90	2.50	2.70



Suggested Pad Layout

Third Angle Projection:



Part Marking:
AHC10x: AHC10 is part size, x special code.
xxxx: xxx is inductance value in nH(R:decimal point),
x = tolerance.
ITGYWW: ITG logo and YYWW is date code.

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.
7. 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.
8. It is recommended that the part temperature should not exceed 130°C under worst operating conditions.

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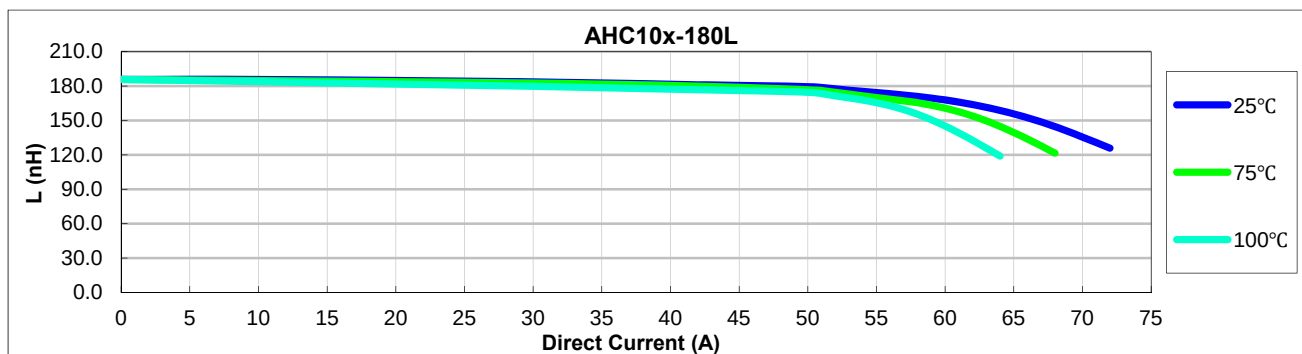
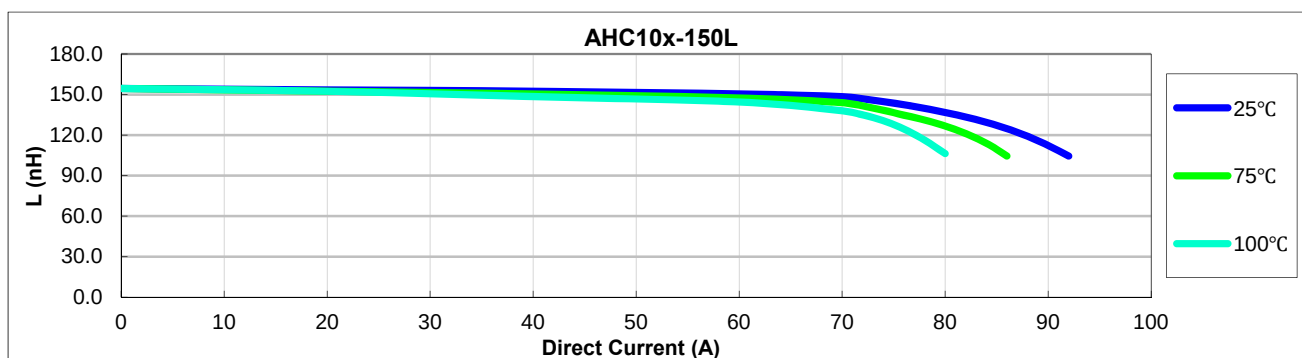
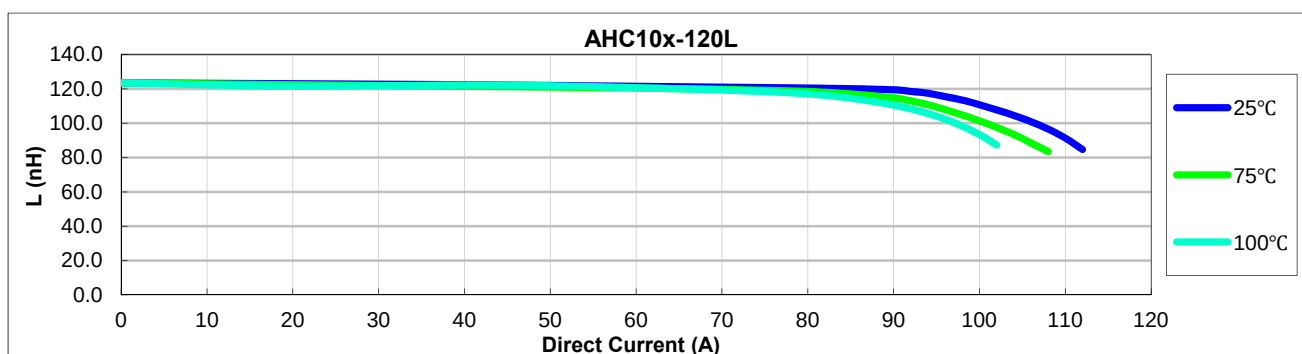
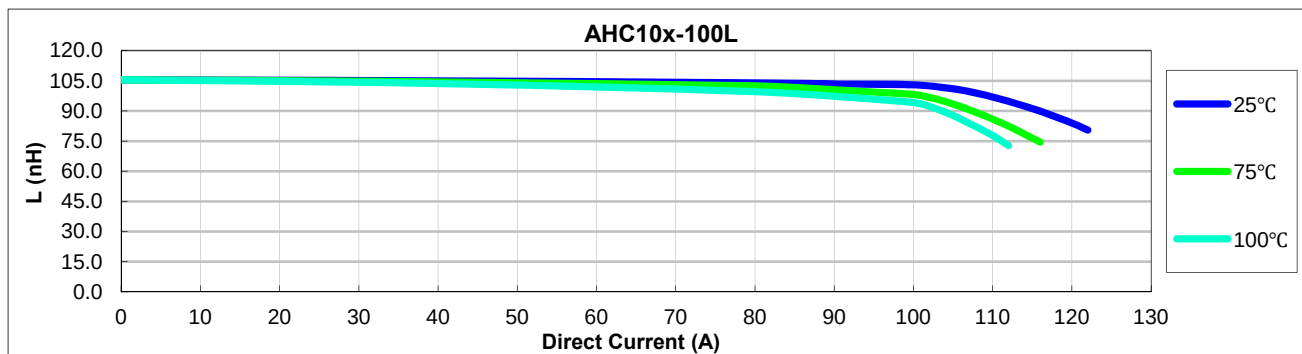
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AHC10 Series



4. Inductance Characteristics of AHC10 Series (Inductance vs Current):



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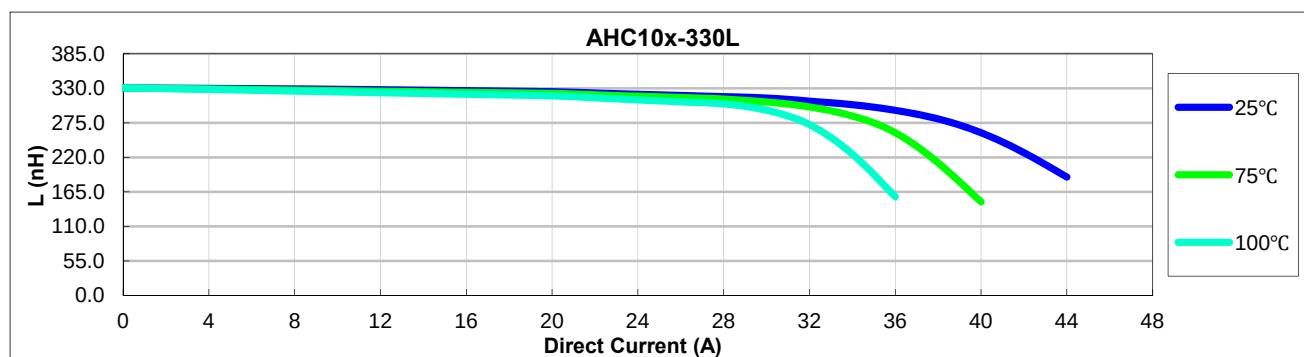
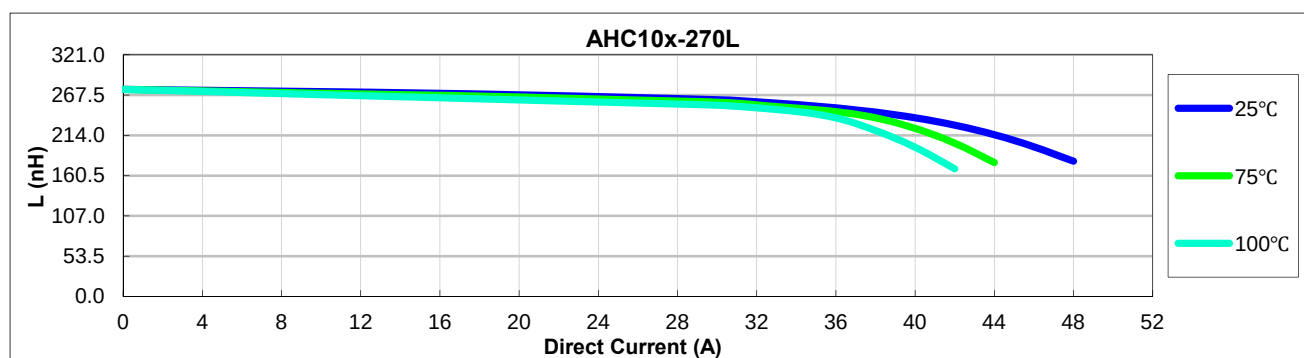
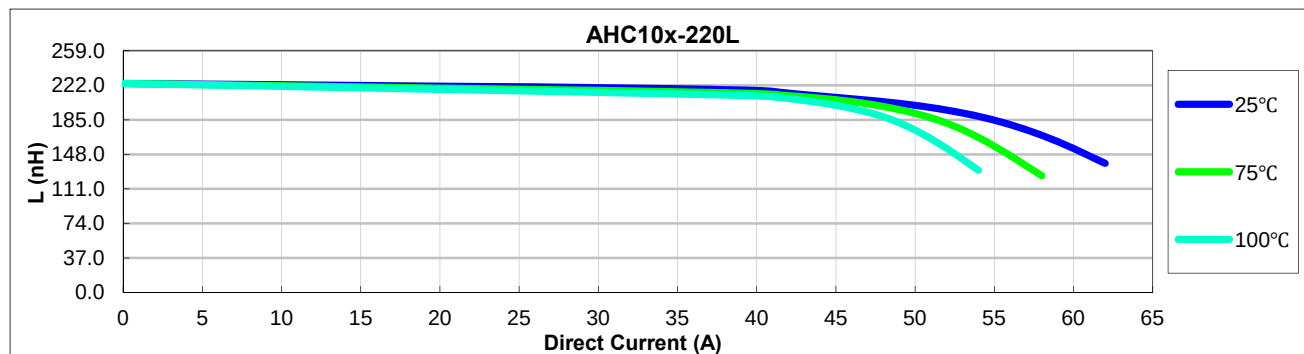
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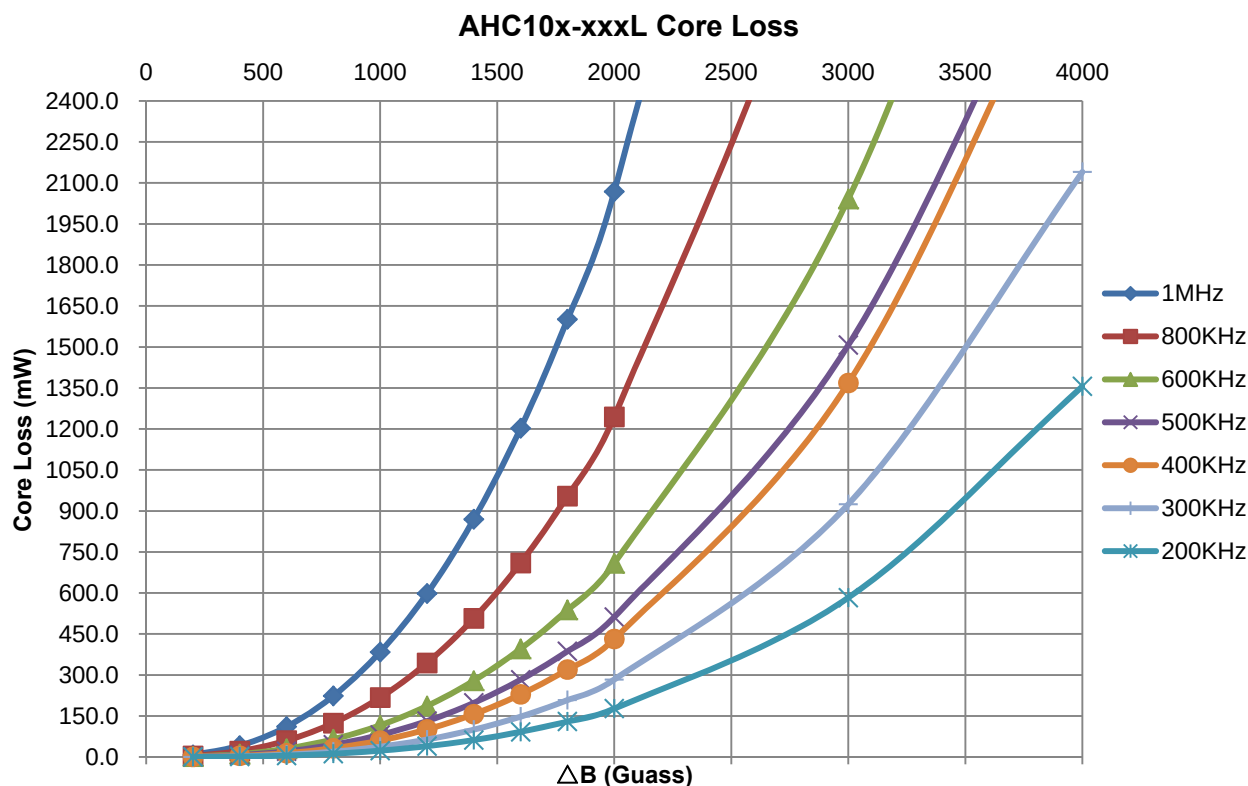


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Where $\Delta B = 0.289 \cdot L(nH) \cdot \Delta I$

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