

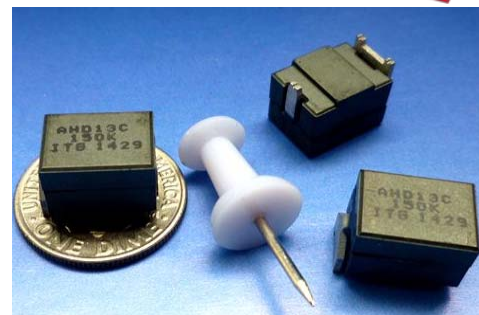


AHD13C Series



1. Features:

- Ferrite based SMD Inductor with lower core loss.
- Inductance Range: 120.0 nH to 330.0 nH , Custom values are welcomed.
- High current output chokes, upto 103.0 Amp with approx. 20% roll off.
- Low Profile 9.70 mm Max.height.
- 11.80 x 8.10 mm Foot Print.
- Perfect for high density designs with limited board space.
- Saves 50% of application board area when compared to standard design approach.
- Operating frequency up to 2.0 MHz.
- Operating Temperature Range -55°C to + 130°C. RoHs & HF compliant.
- T & R Qty: 400 pcs , 13" Reel.

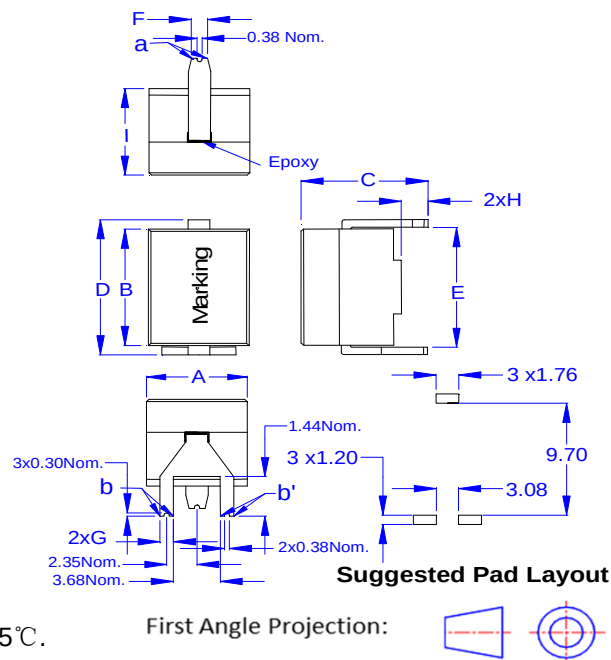


2. Electrical Characteristic of AHD13C Series:

Part Number	OCL ¹ (nH) ±10%	DCR ³ (mΩ) ± 7.0%	Isat1 ⁴ (A) @25°C	Isat2 ⁴ (A) @75°C	Isat3 ⁴ (A) @100°C	Irms ⁵ (A) @25°C
AHD13C-120K	120.00	0.32	103.00	99.00	94.00	53.00
AHD13C-150K	150.00	0.32	86.00	83.00	80.00	53.00
AHD13C-170K	170.00	0.32	76.00	73.00	70.00	53.00
AHD13C-210K	210.00	0.32	56.00	54.00	51.00	53.00
AHD13C-270K	270.00	0.32	41.00	39.00	36.00	53.00
AHD13C-330K	330.00	0.32	31.00	28.00	26.00	53.00

3. Mechanical Dimension(Unit:mm):

A	B	C	D	E	F	G	H	I
± 0.20	± 0.20	Max.	Max.	± 0.30	± 0.20	± 0.20	Min.	(Max.)
7.90	10.60	9.70	11.80	10.20	1.26	1.02	1.20	8.40



Note:

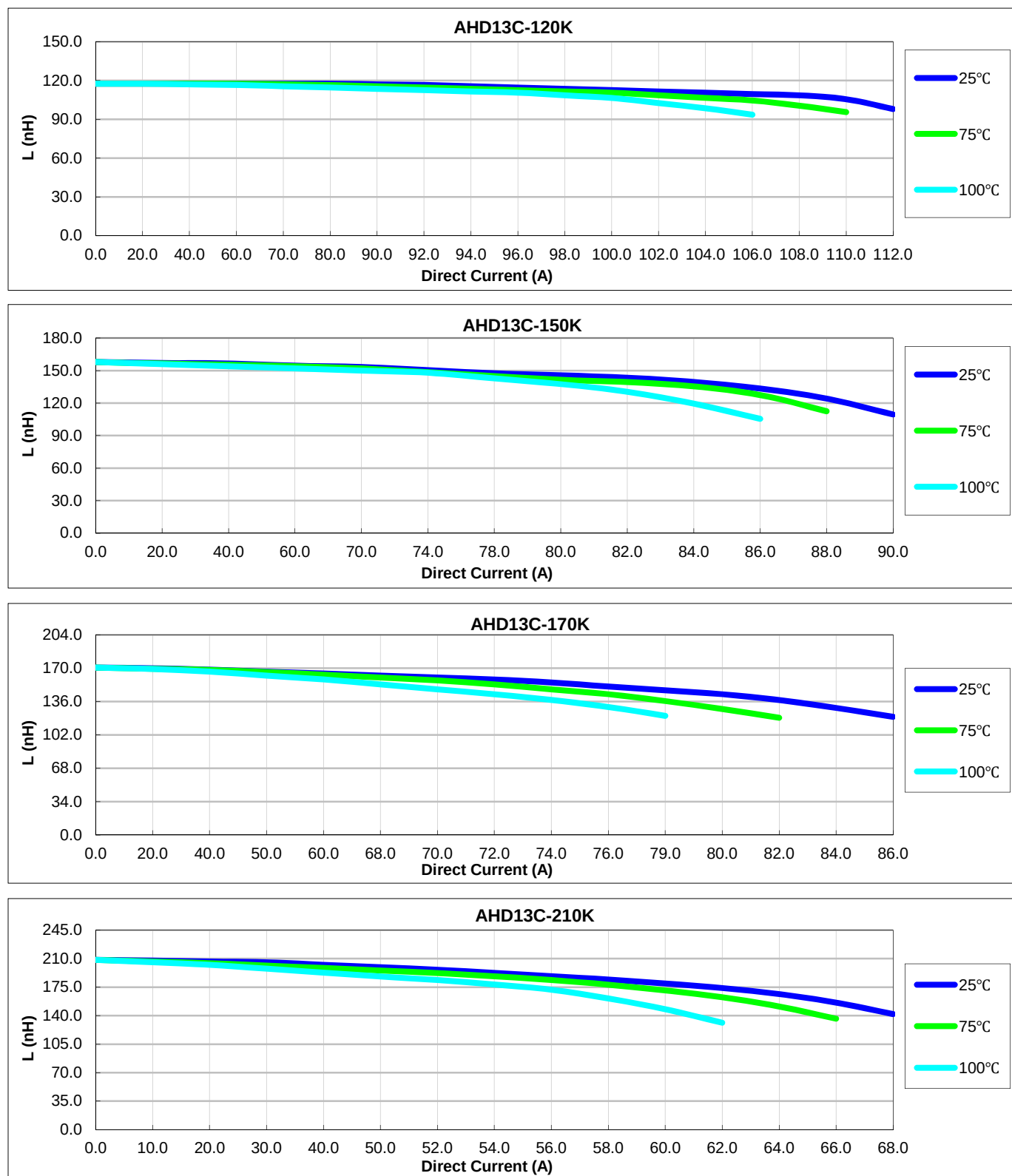
- 1>.Open Circuit Inductance (OCL) test condition:500KHz,0.25Vrms,0Adc,at 25°C.
- 2>.L @ Isat and L @ Irms Test condition: 500KHz,0.25Vrms ; (Ta=25°C).
- 3>.The nominal DCR is measured from point" a " to point" b " or point" b' ", as shown above on the mechanical drawing; (Ta=25°C).
- 4>.Isat1,Isat2 & Isat3 : DC current that will cause inductance to drops approximately by 20%.
- 5>. Irms: DC current for an approximate temperature rise of 40°C 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 as verified in the end application.



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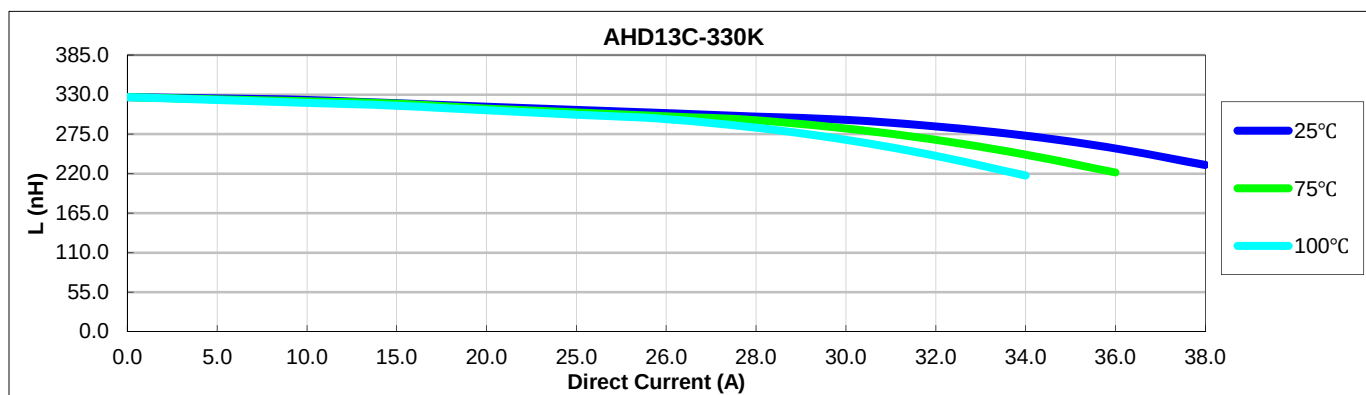
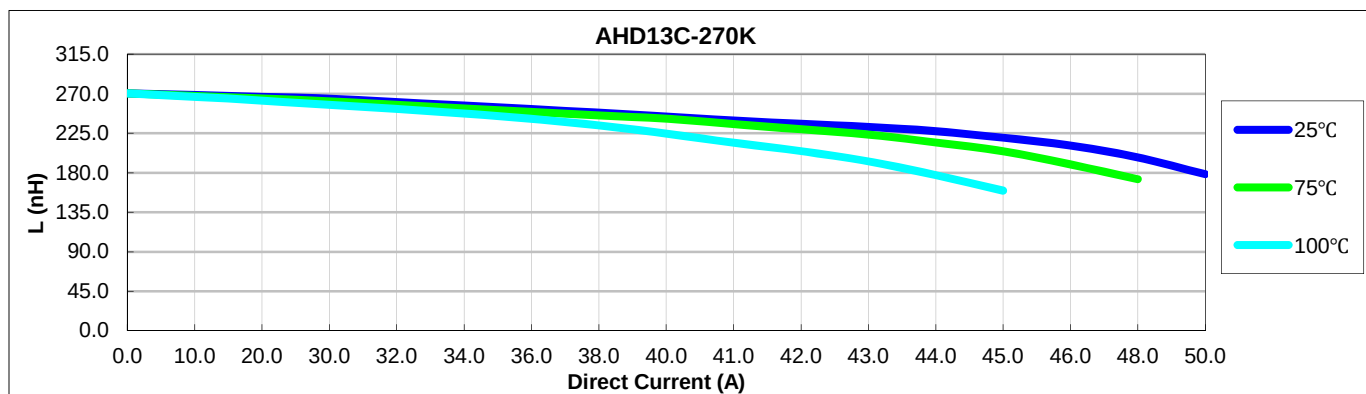
4. Inductance Characteristics (Inductance vs. Current):



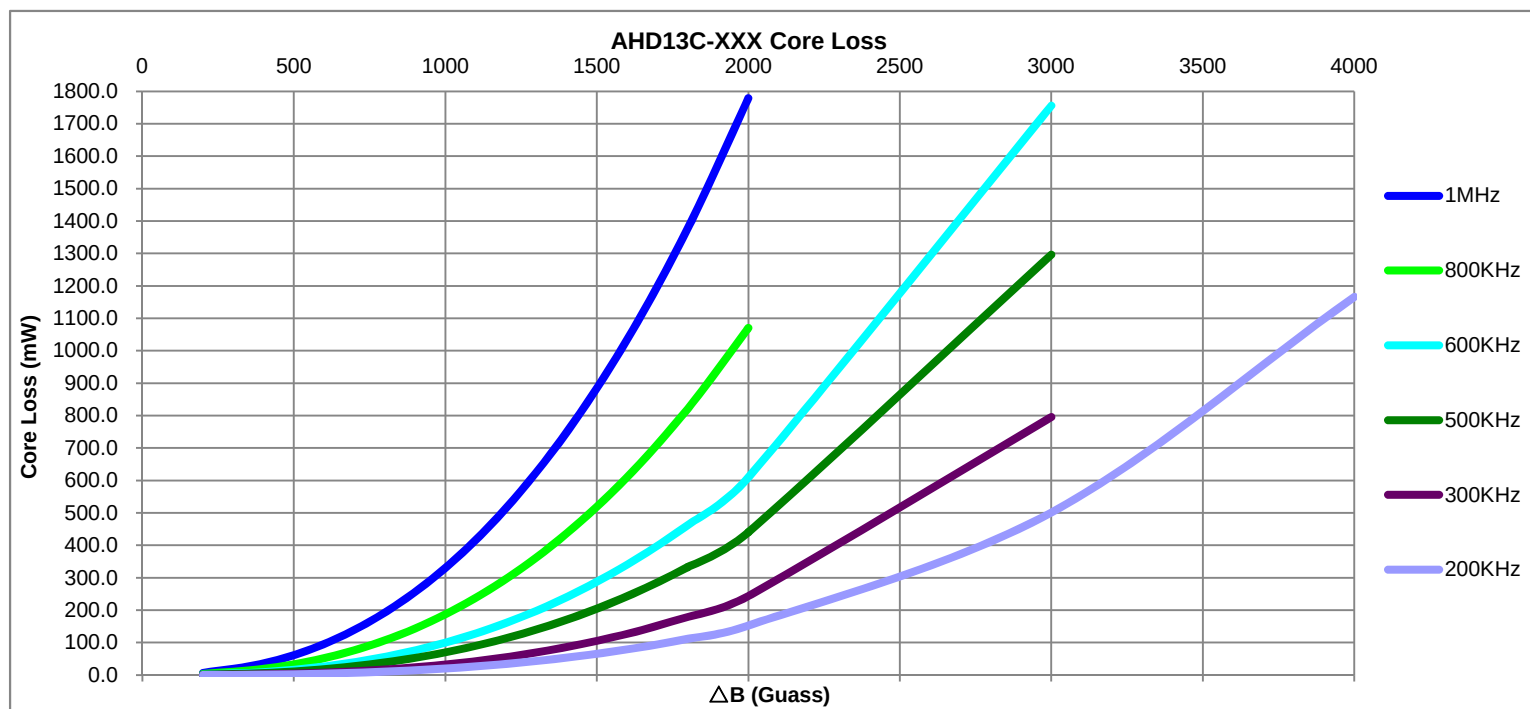


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Inductance vs. Current



5. Core Loss:



Where $\Delta B = 0.307 \cdot L(nH) \cdot \Delta I$