

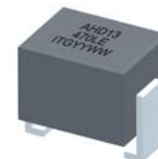


AHD13E Series



1. Features of AHD13E Series:

- Ferrite based SMD inductor with lower core loss.
- Inductance range: 100.0 nH to 470.0 nH , custom values are welcomed.
- High current output chokes , up to 116.0 Amp with approx. 20% roll off.
- Low profile 10.0 mm Max. height.
- 12.50 x 7.00 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 of up to 2.0MHz.
- Operating temperature range of -55° C to + 130° C.
- RoHS & HF compliant.
- T & R Qty's: 550pcs, 13" Reel.

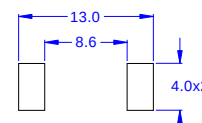
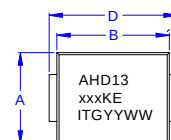


2. Electrical Characteristics of AHD13E Series:

ITG Part Number	OCL ¹ (nH) ± 10% or ± 15%	DCR ³ (mΩ) ± 7.0%	Isat1 ⁴ (A) @25°C	Isat2 ⁴ (A) @45°C	Isat3 ⁴ (A) @75°C	Isat4 ⁴ (A) @100°C	Irms ⁵ (A) @25°C
AHD13E-100K	100.00± 10%	0.215	116.00	113.00	111.00	106.00	60.00
AHD13E-120K	120.00± 10%	0.215	97.00	95.00	93.00	88.00	60.00
AHD13E-150K	150.00± 10%	0.215	80.00	78.00	77.00	75.00	60.00
AHD13E-170K	170.00± 10%	0.215	71.00	70.00	68.00	65.00	60.00
AHD13E-180K	180.00± 10%	0.215	62.00	60.00	58.00	56.00	60.00
AHD13E-210K	210.00± 10%	0.215	51.00	50.00	48.00	47.00	60.00
AHD13E-270K	270.00± 10%	0.215	38.00	37.00	36.00	32.00	60.00
AHD13E-330K	330.00± 10%	0.215	28.00	26.00	25.00	23.00	60.00
AHD13E-470L	470.00± 15%	0.215	20.00	19.00	18.00	16.00	60.00

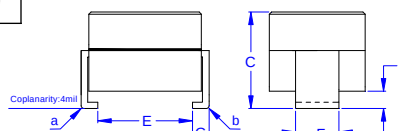
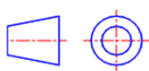
3. Mechanical Dimension of AHD13E Series:

A	B	C	D	E	F	G	H
± 0.30	± 0.20	Max.	± 0.30	± 0.10	± 0.20	± 0.30	Min.
7.00	10.90	10.00	12.50	8.70	3.50	1.95	1.50



Suggested Pad Layout

First Angle Projection:



Part Marking:
AHD13: Part Size.
xxxKE: xxx is inductance value in nH,
K is tolerance code, E is special code.
ITGYYWW: ITG logo and YYWW is date code.

Notes:

- Open Circuit Inductance (OCL) test condition: 500KHz, 0.25Vrms, 0A DC at 25°C.
- L @ Isat and L @ Irms Test condition: 500KHz, 0.25Vrm (Ta=25°C).
- The nominal DCR is measured from point "a" to point "b" as shown above in the mechanical drawing (Ta=25°C).
- Isat1, Isat2 & Isat3: DC current that will cause inductance to drop approximately by 20%.
- Irms: DC current for an approximate temperature rise of 40°C without core loss.
- Derating is necessary for AC currents. 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.
- It is recommended that the part temperature should not exceed 130° C under worst operating conditions.

● 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
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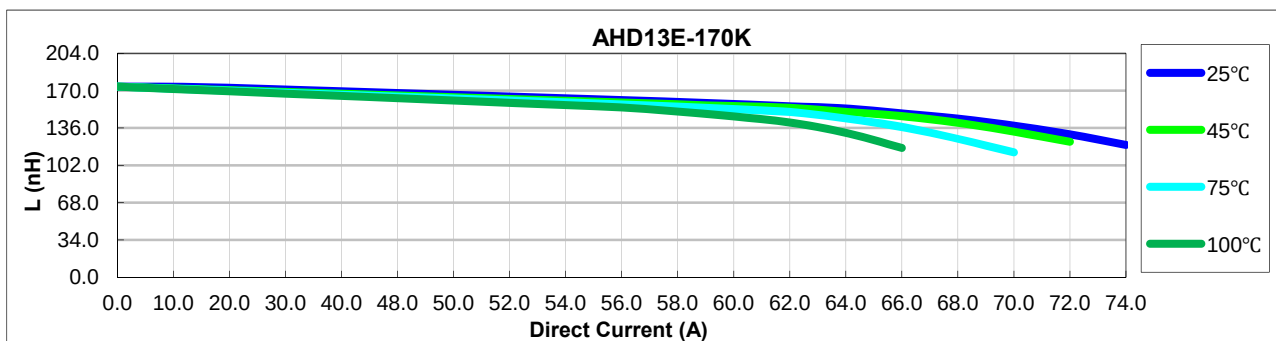
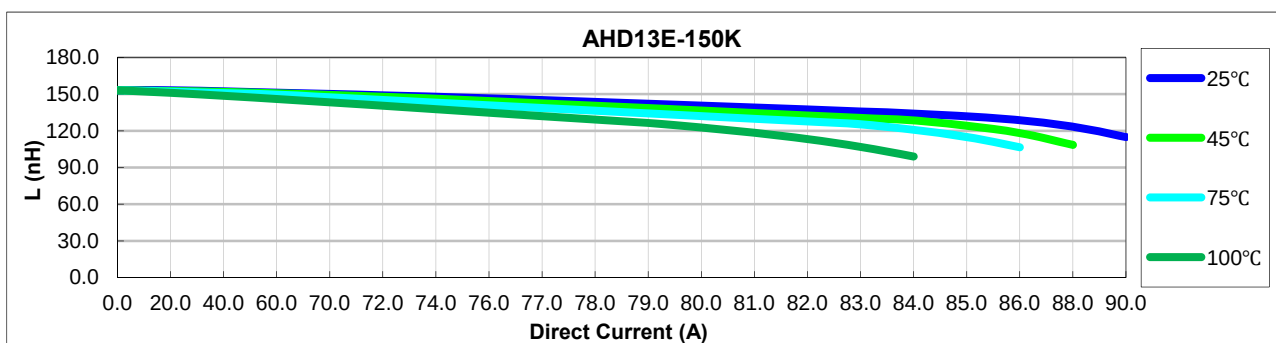
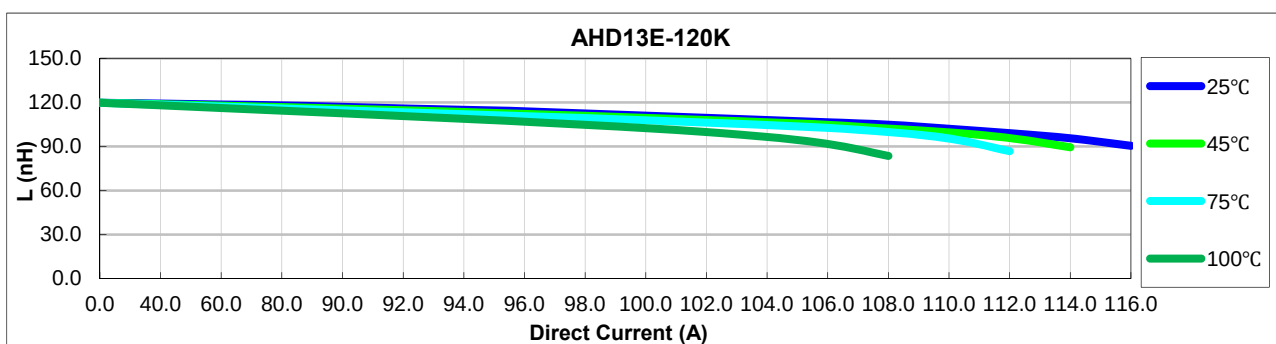
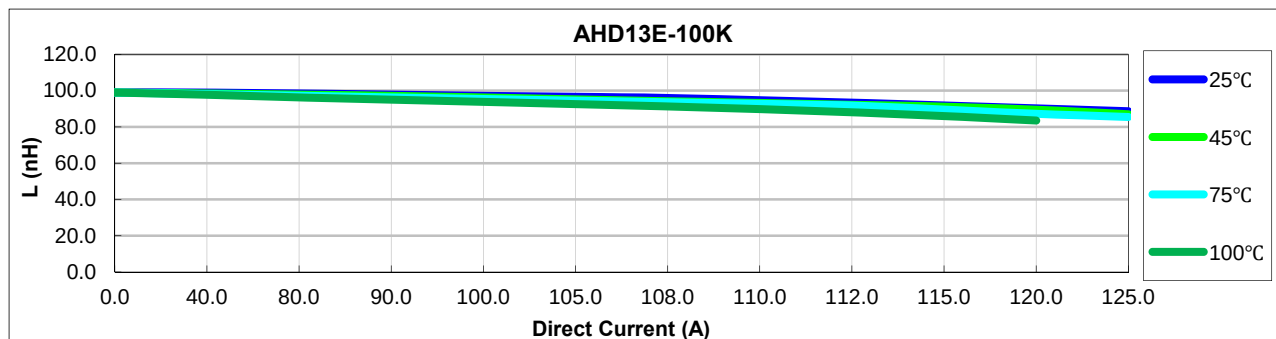
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AHD13E Series



4. Inductance Characteristics of AHD13E Series (Inductance vs Current):



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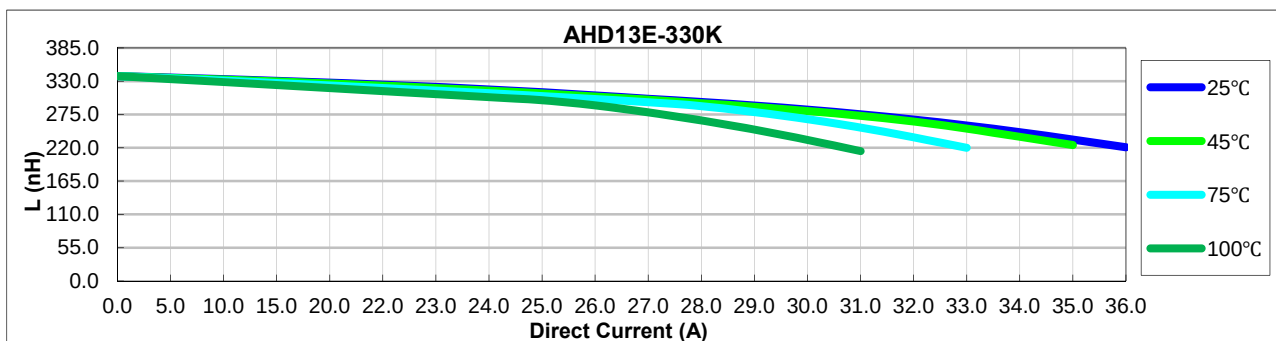
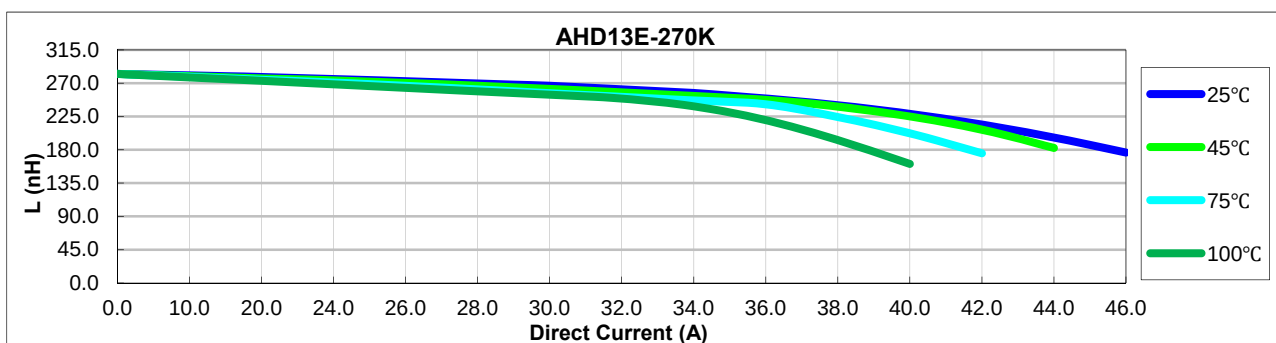
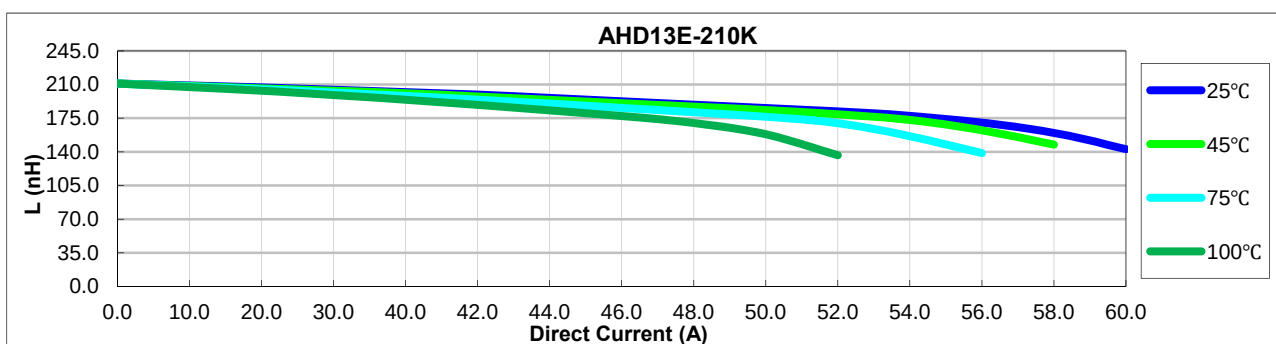
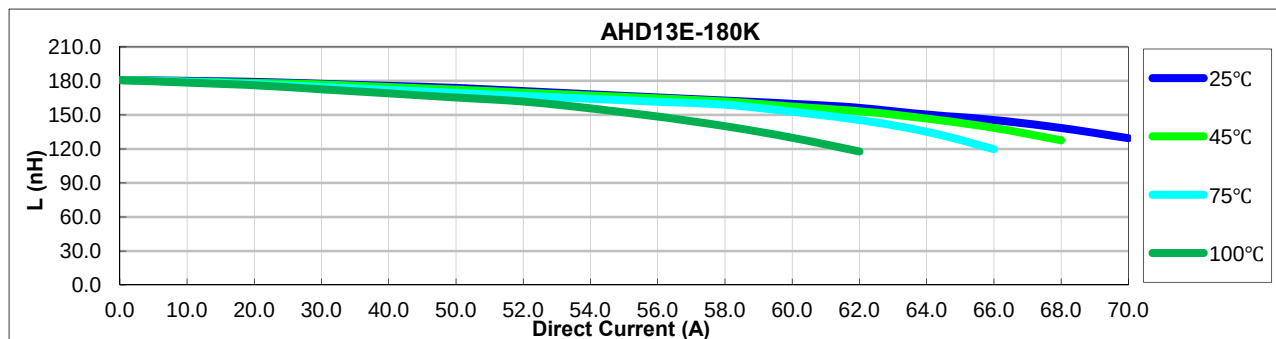
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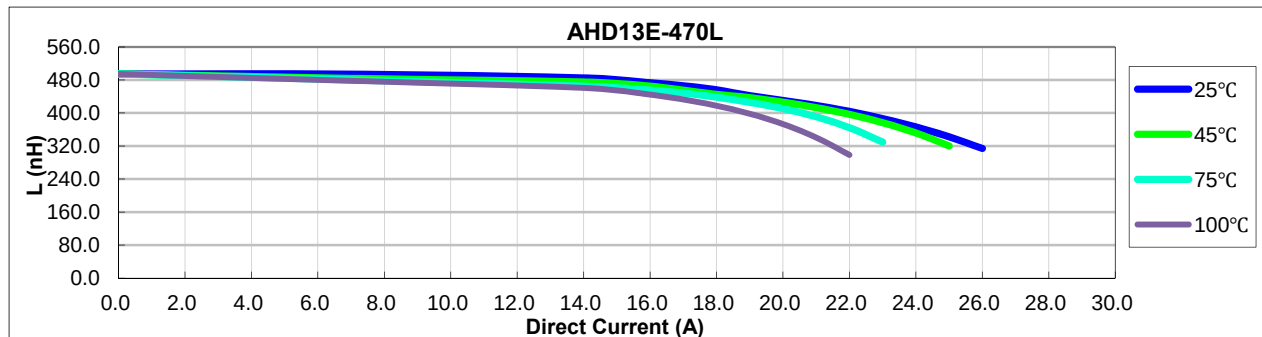
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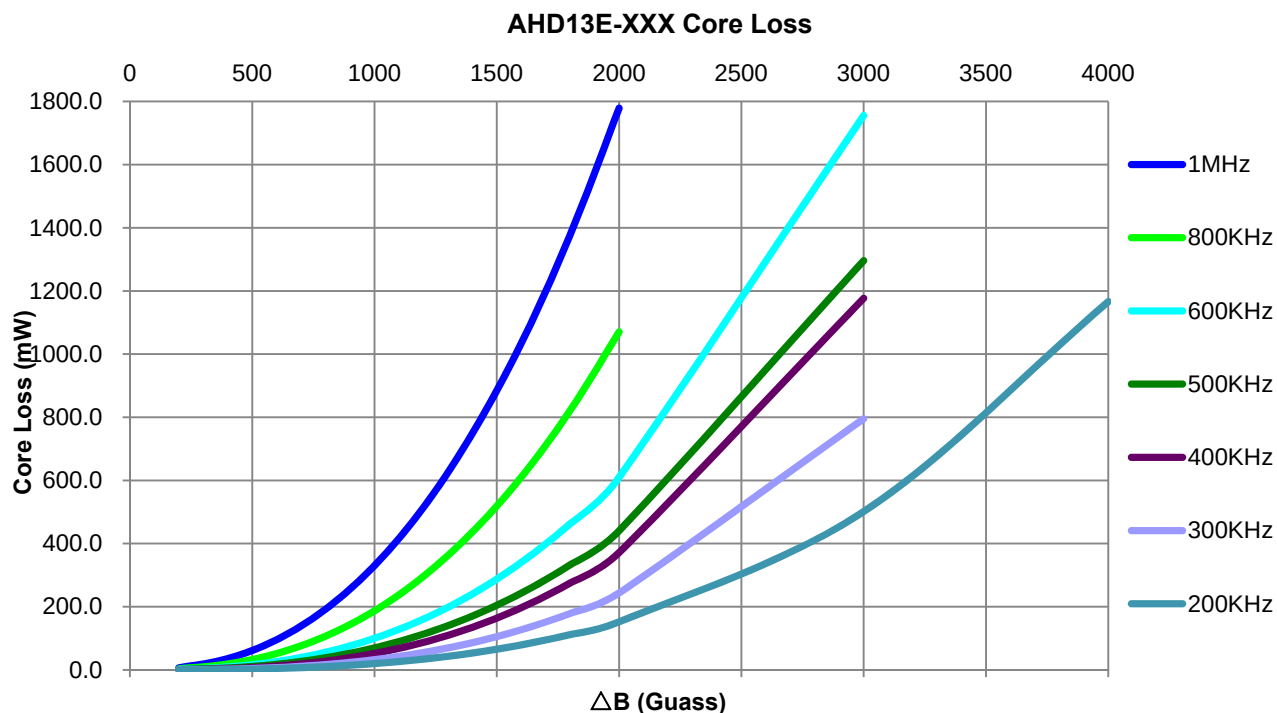
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4. Inductance Characteristics of AHD13E Series (Inductance vs Current):



5. Core Loss:



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