



AH3732H Series



1. Features of AH3732H Series:

- Ferrite based SMD inductor with lower core loss.
- Inductance range: 120.0nH to 330.0nH , custom values are welcomed.
- High current output chokes of up to 75.0 Amp with approx. 20% roll off.
- Low profile 7.80 / 7.90mm typical height
- 9.60 x 6.40mm foot print.
- Ideal for Buck Converter, VRM & High Density Board Design.
- Operating frequency of up to 5.0 MHz.
- Operating temperature range of -55° C to + 130° C.
- RoHS & HF compliant.
- T & R Qty's: 650pcs, 13" Reel.



2. Electrical Characteristics of AH3732H Series:

ITG Part Number	OCL ¹ (nH)	L @ Isat ¹² (nH) Min.	DCR ³ (mΩ) ±5.0%	Isat ¹⁴ (A) @25°C	Isat ²⁴ (A) @75°C	Isat ²⁴ (A) @100°C	Irms ⁵ (A) @25°C	Dim. C (mm) ±0.20
AH3732H-R12KHF	120.00, ±10%	86.40	0.29	75.00	70.00	68.00	51.00	7.90
AH3732H-R15KHF	150.00, ±10%	108.00	0.29	58.00	55.00	52.00	51.00	7.80
AH3732H-R18KHF	180.00, ±10%	129.60	0.29	48.00	44.00	42.00	51.00	7.80
AH3732H-R22KHF	220.00, ±10%	158.40	0.29	38.00	35.00	33.00	51.00	7.80
AH3732H-R28KHF	280.00, ±10%	201.60	0.29	28.00	26.00	24.00	51.00	7.80
AH3732H-R30KHF	300.00, ±10%	216.00	0.29	25.00	23.00	21.00	51.00	7.80
AH3732H-R33LHF	330.00, ±15%	237.60	0.29	21.00	19.00	18.00	51.00	7.80

3. Mechanical Dimension of AH3732H Series:

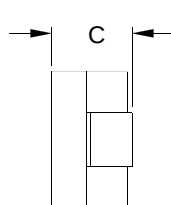
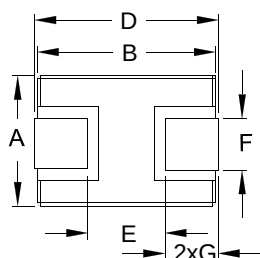
A ±0.20	B (Max.)	C See table above	D ±0.20	E (Ref.)	F ±0.20	G ±0.30
6.20	9.50		9.40	4.40	2.20	2.50

Third Angle Projection:

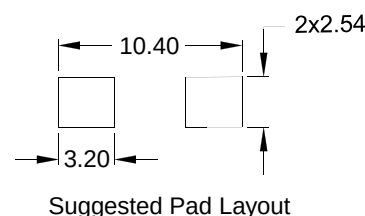
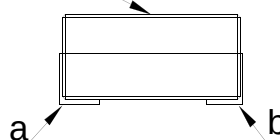


Part Marking:

xxxxX: xxxx is inductance value in uH (R:decimal point) X is part code
ITGYYWW: ITG: Company name, YYWW: Date code.



Marking



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 and Isat2: 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. 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.
7. 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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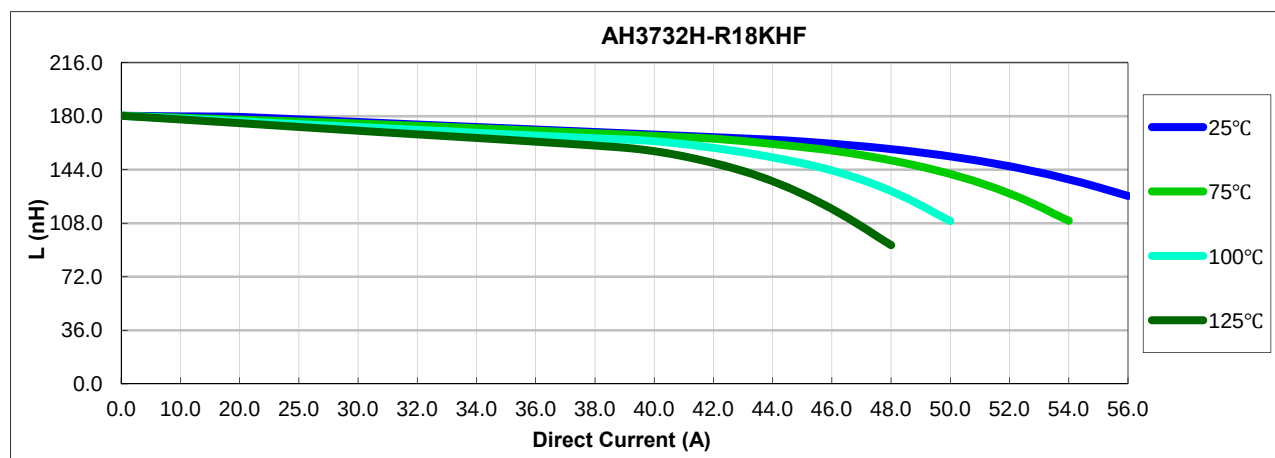
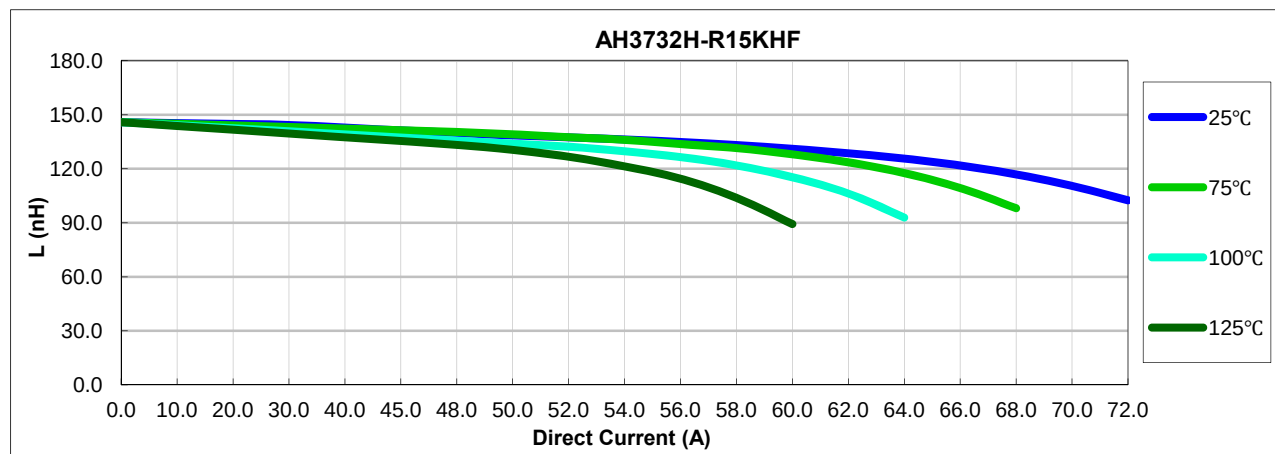
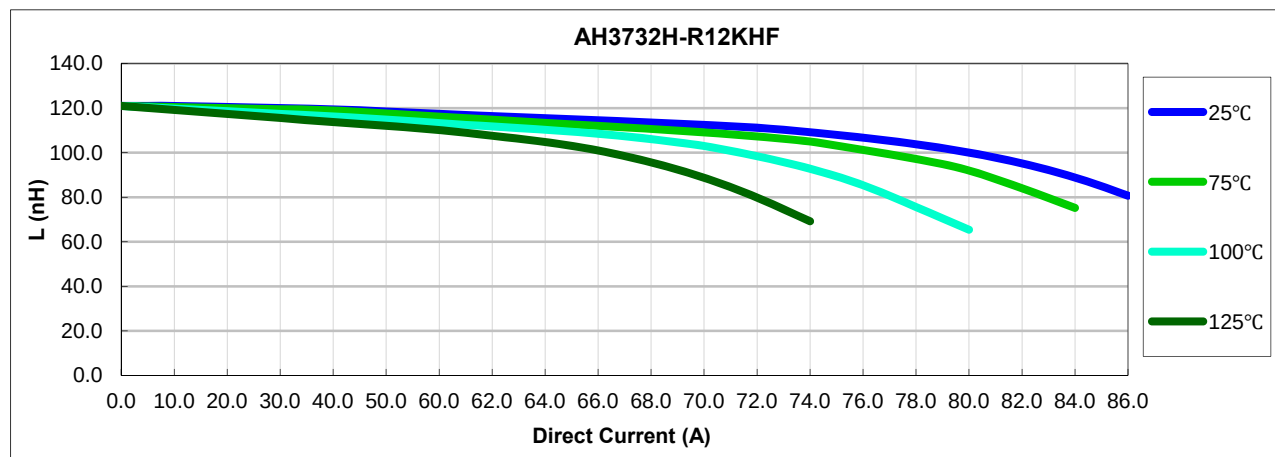
*Due to continuous product improvement, all specifications are subject to change without prior notice. Kindly contact an ITG field application engineer or a sales representative prior to purchase.



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4. Inductance Characteristics of AH3732H Series (Inductance vs Current):



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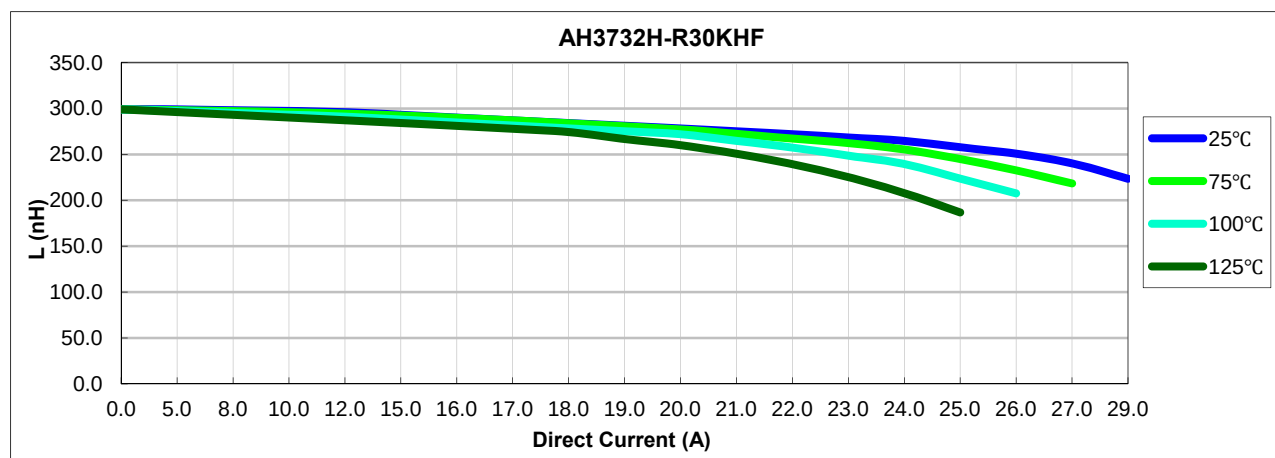
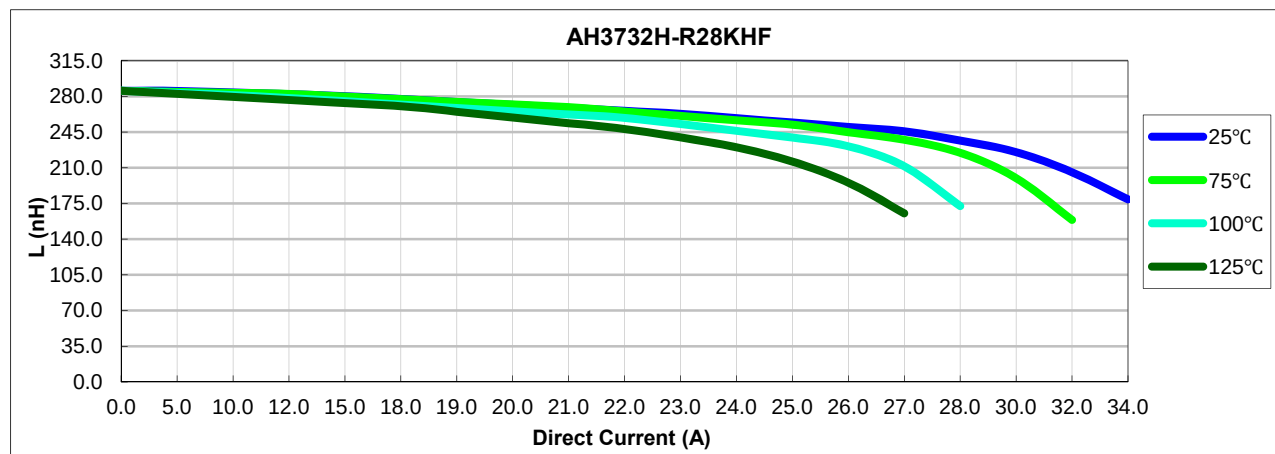
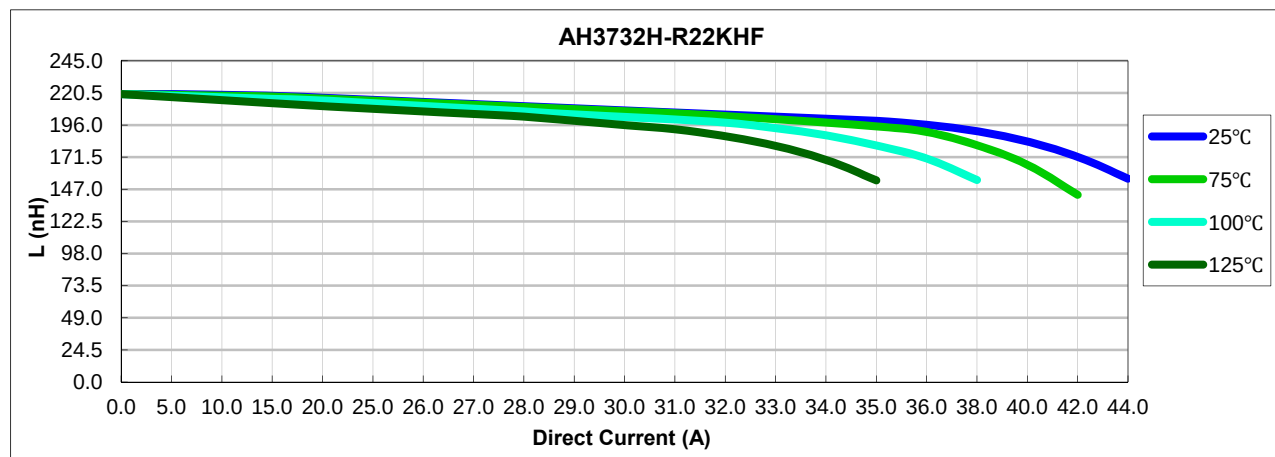
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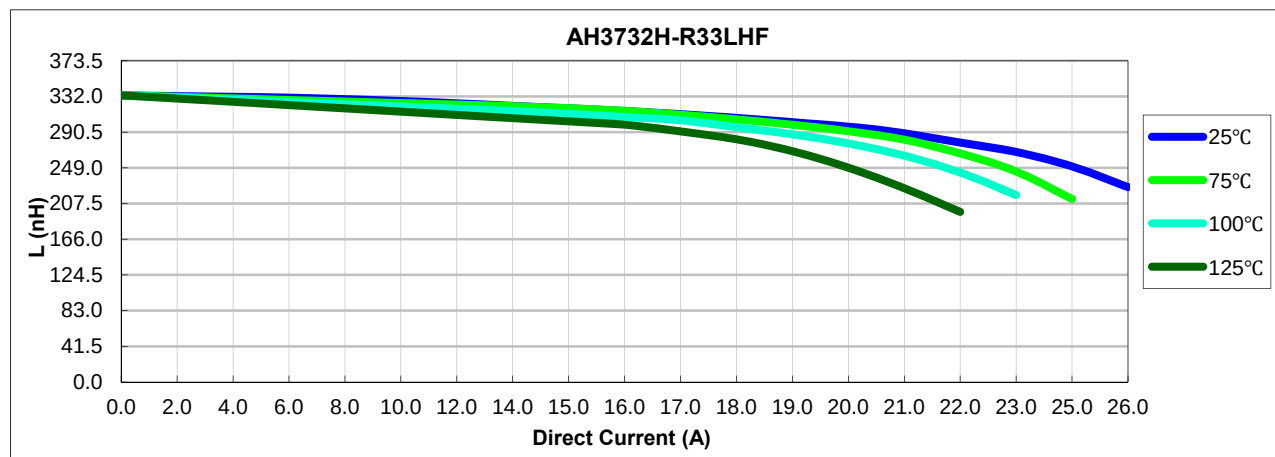
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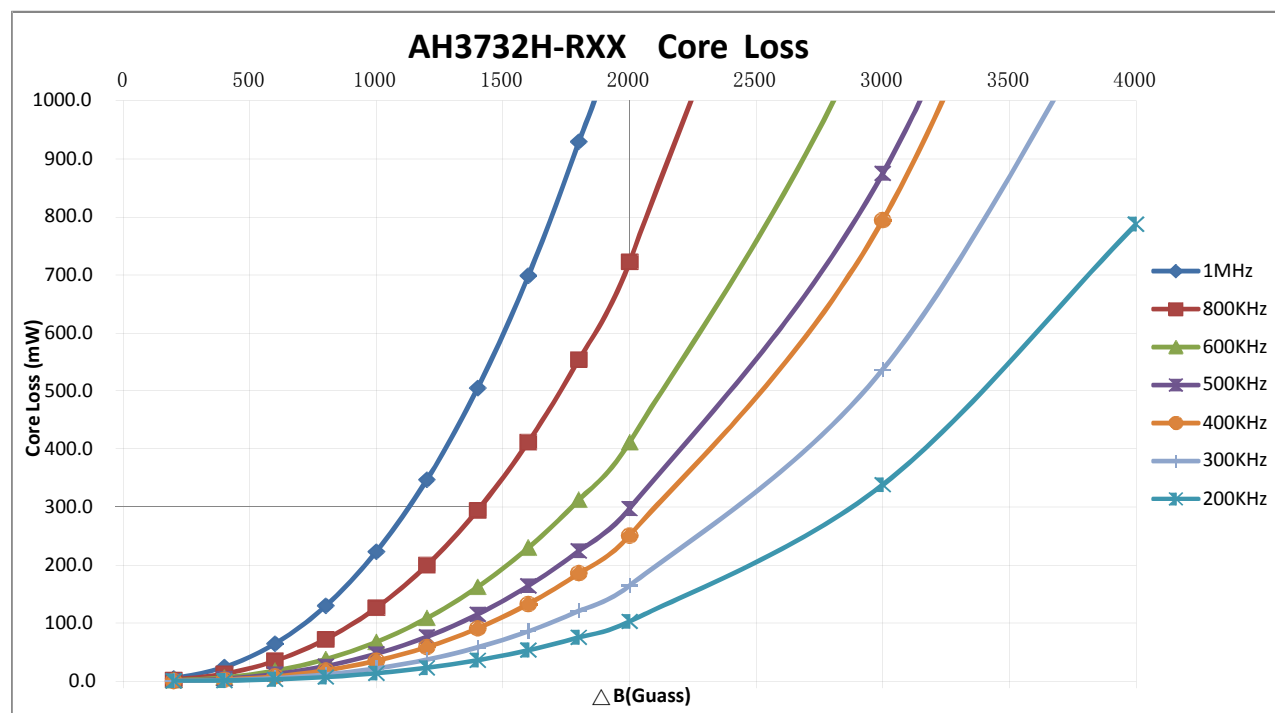
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4. Inductance Characteristics of AH3732H Series (Inductance vs Current):



4. Core loss of AH3732H Series:



Where $\Delta B = 0.401 \cdot L(nH) \cdot \Delta I$

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