



AFA41405Q Series



1. Features of AFA41405Q Series:

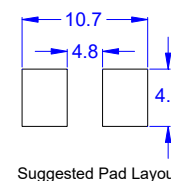
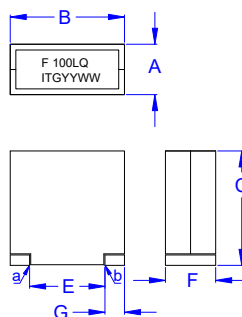
- AEC-Q200 Compliant .
- Ferrite based SMD inductor with lower core loss.
- Inductance range: 40.0 nH to 150.0 nH , custom values are welcomed.
- High current output chokes, up to 220.0 Amp with approx. 20% roll off.
- Low Profile 10.0mm typical Height .
- 10.2 x 4.8 mm Foot Print.
- Ideal for Buck Converter, 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: 500pcs, 13" Reel.

2. Electrical Characteristics of AFA41405Q Series:

ITG Part Number	OCL ¹ (nH) ± 15%	L @ Isat1 ² (nH) Min.	DCR ³ (mΩ) Max.	Isat1 (A) @25°C	Isat2 ⁴ (A) @75°C	Isat3 ⁴ (A) @100°C	Irms ⁵ (A) @25°C
AFA41405Q-40L	40.00	28.80	0.23	220.00	210.00	200.00	85.00
AFA41405Q-45L	45.00	32.40	0.23	210.00	200.00	190.00	85.00
AFA41405Q-50L	50.00	36.00	0.23	190.00	180.00	170.00	85.00
AFA41405Q-70L	70.00	50.40	0.23	145.00	135.00	120.00	85.00
AFA41405Q-80L	80.00	57.60	0.23	123.00	112.00	105.00	85.00
AFA41405Q-100L	100.00	72.00	0.23	100.00	90.00	85.00	85.00
AFA41405Q-120L	120.00	86.40	0.23	82.00	75.00	72.00	85.00
AFA41405Q-150L	150.00	108.00	0.23	58.00	54.00	50.00	85.00

3. Mechanical Dimension of AFA41405Q Series:

A	B	C	E	F	G
Max.	Max.	Max.	Nom.	± 0.20	± 0.25
4.80	10.20	10.00	5.20	4.10	2.50



Third Angle Projection:

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. 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
 ● sales@ITG-Electronics.com ● www.ITG-Electronics.com Revision A.0: May 11, 2021

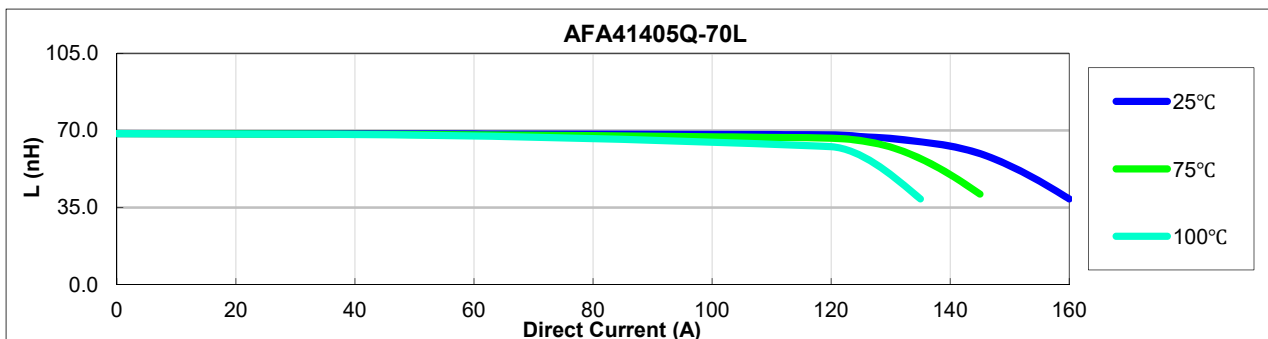
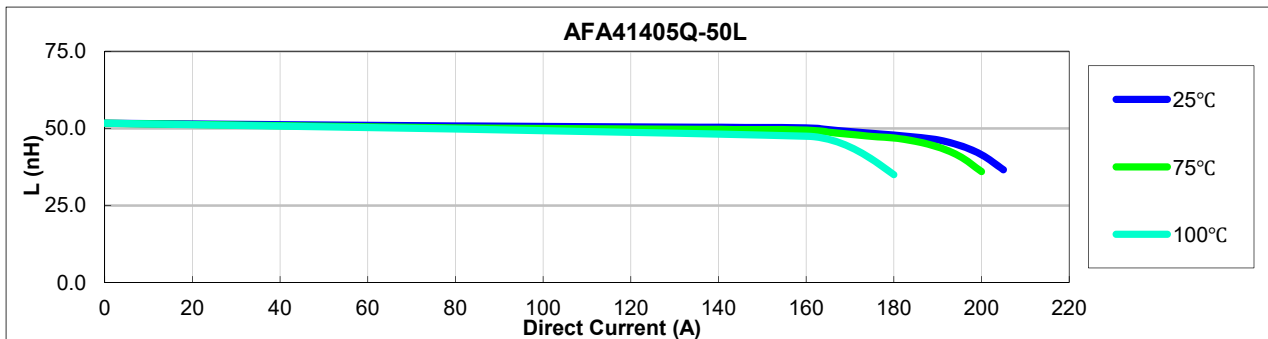
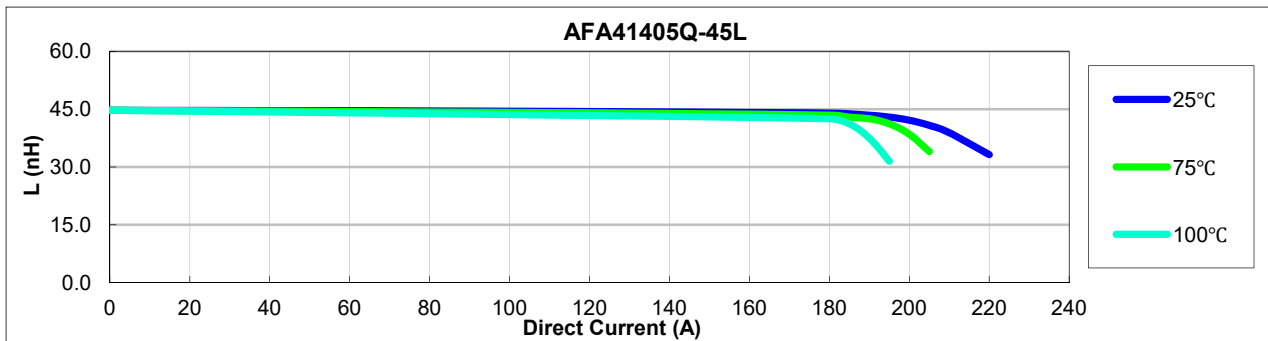
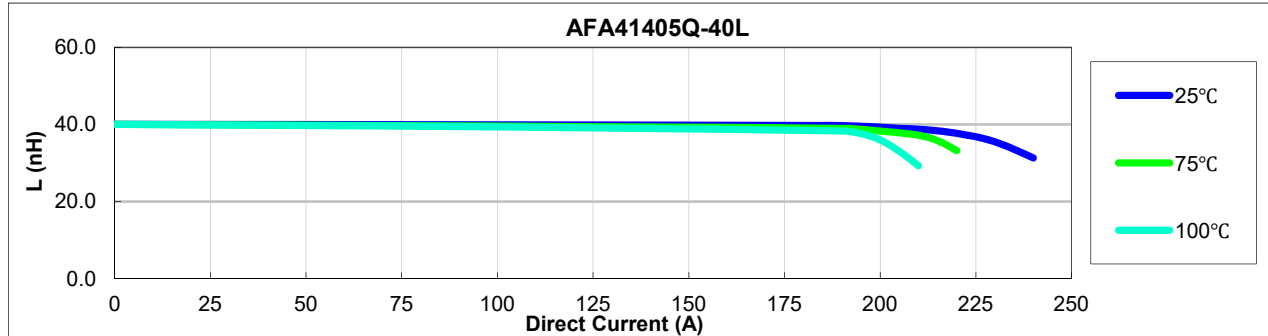
**Due to continuous product improvement, all specifications are subject to change without prior notice. Kindly contact an ITG field application engineer or a sales representative prior to purchase.*



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4. Inductance Characteristics of AFA41405Q Series (Inductance vs Current):



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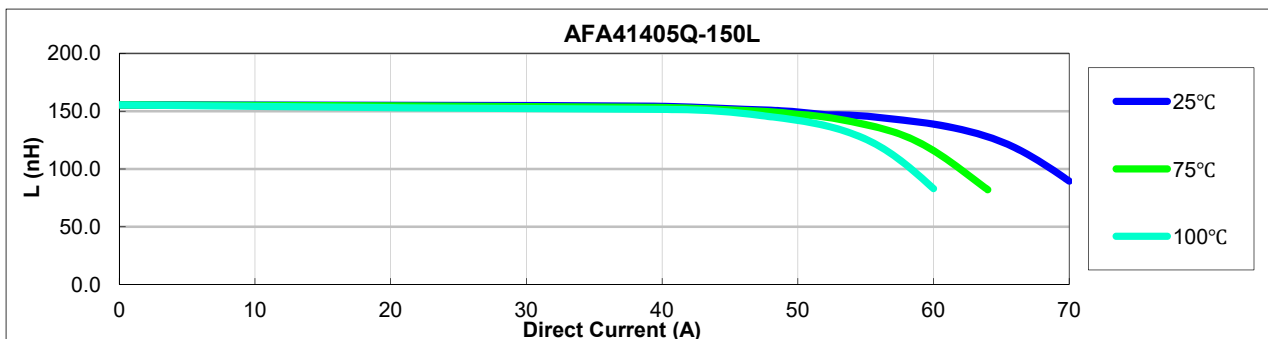
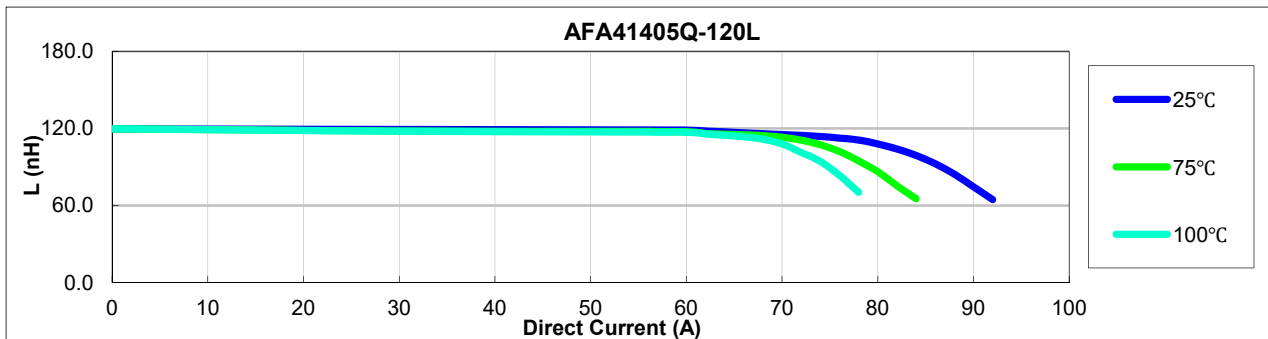
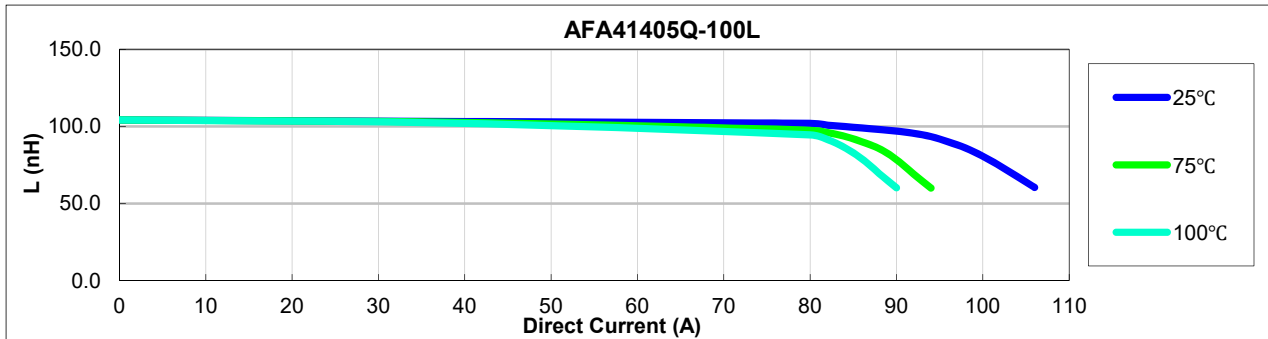
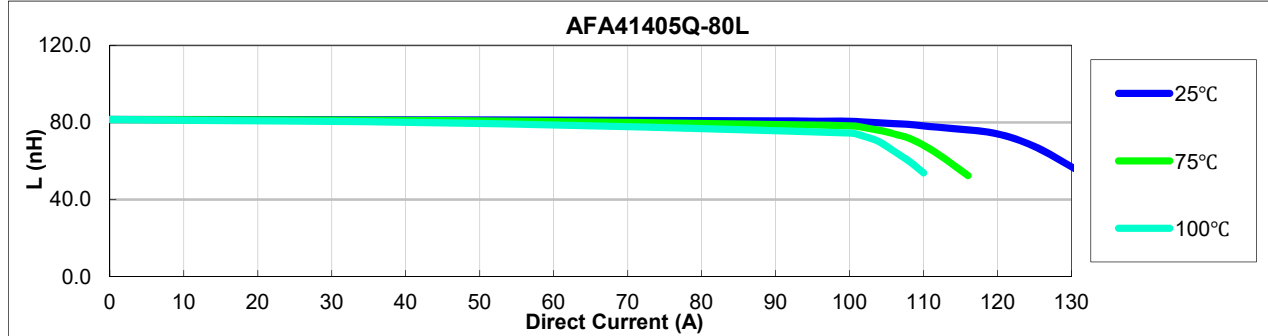
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