

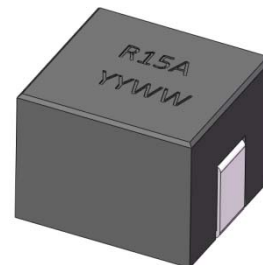


SL413210 Series



1. Features of SL413210 Series:

- Ferrite based SMD inductor with lower core loss.
- Inductance range: 120.00nH up to 400.0nH, custom values are welcomed
- High current output chokes, up to 104.0 Amp with approx. 20% roll off.
- Low profile 8.00mm max height.
- Foot Print 10.41 x 9.5mm max footprint.
- Perfect for high density designs with limited board space.
- Operating frequency of up to 1.0MHz.
- Operating temperature range of -55°C to + 130°C
- RoHS & HF compliant.
- T & R Qty's: 450pcs, 13" Reel.



2. Electrical Characteristics of SL413210 Series:

ITG Part Number	OCL ¹ (nH) ± 10% or 15%	DCR ³ (mΩ) ± 5%	Isat1 ⁴ (A) @25°C	Isat2 ⁴ (A) @75°C	Isat3 ⁴ (A) @100°C	Irms ⁵ (A) @25°C
SL413210A-R12KHF	120.00 , 10%	0.190	104.00	100.00	95.00	75.00
SL413210B-R12KHF	120.00 , 10%	0.200	104.00	100.00	95.00	73.00
SL413210A-R15KHF	150.00 , 10%	0.190	87.00	84.00	80.00	75.00
SL413210B-R15KHF	150.00 , 10%	0.200	87.00	84.00	80.00	73.00
SL413210A-R17KHF	170.00 , 10%	0.190	78.00	73.00	70.00	75.00
SL413210B-R17KHF	170.00 , 10%	0.200	78.00	73.00	70.00	73.00
SL413210A-R23KHF	230.00 , 10%	0.190	57.00	54.00	51.00	75.00
SL413210B-R23KHF	230.00 , 10%	0.200	57.00	54.00	51.00	73.00
SL413210A-R27KHF	270.00 , 10%	0.190	47.00	43.00	41.00	75.00
SL413210B-R27KHF	270.00 , 10%	0.200	47.00	43.00	41.00	73.00
SL413210A-R30KHF	300.00 , 10%	0.190	40.00	37.00	35.00	75.00
SL413210B-R30KHF	300.00 , 10%	0.200	40.00	37.00	35.00	73.00
SL413210A-R33LHF	330.00 , 15%	0.190	35.00	33.00	31.00	75.00
SL413210B-R33LHF	330.00 , 15%	0.200	35.00	33.00	31.00	73.00
SL413210A-R40LHF	400.00 , 15%	0.190	27.00	26.00	25.00	75.00
SL413210B-R40LHF	400.00 , 15%	0.200	27.00	26.00	25.00	73.00

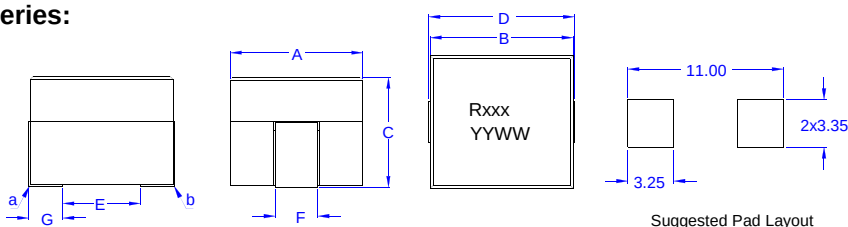
3. Mechanical Dimension of SL413210 Series:

A	B	C	D	E	F	G
Max.	Max.	Max.	Max.	Nom.	± 0.25	± 0.35
9.50	10.30	8.00	10.41	5.20	2.80	2.40

Part Marking:

Rxx x: Rxx is inductance value in uH
(R:decimal point), x special code.

YYWW: Date Code.



Notes:

1. Open Circuit Inductance (OCL) test condition: 100KHz, 0.10Vrms, 0A DC at 25°C.
2. L @ Isat and L @ Irms Test condition: 100KHz, 0.10Vrm (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
 ● Tokyo 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 D: March 30, 2016

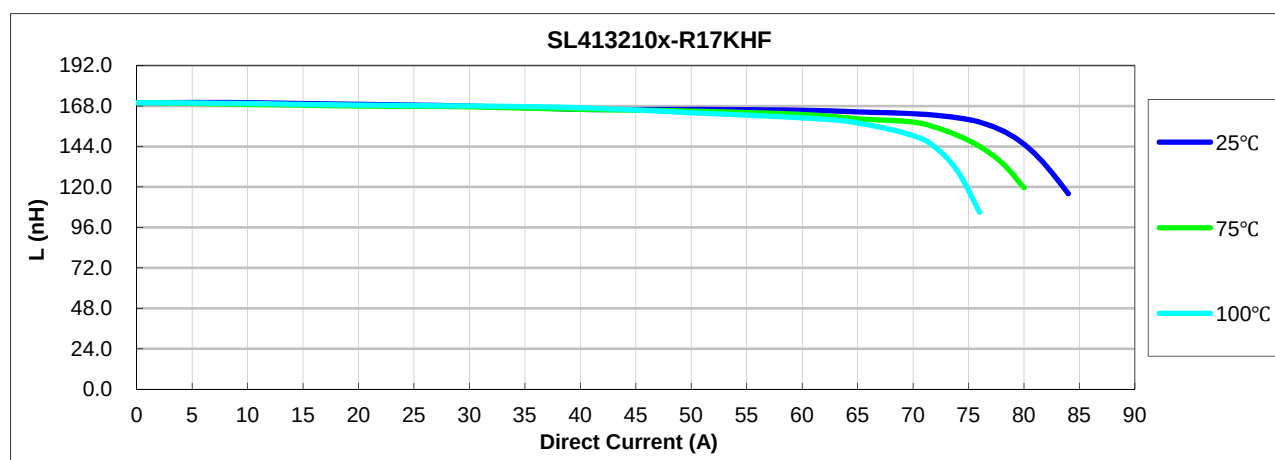
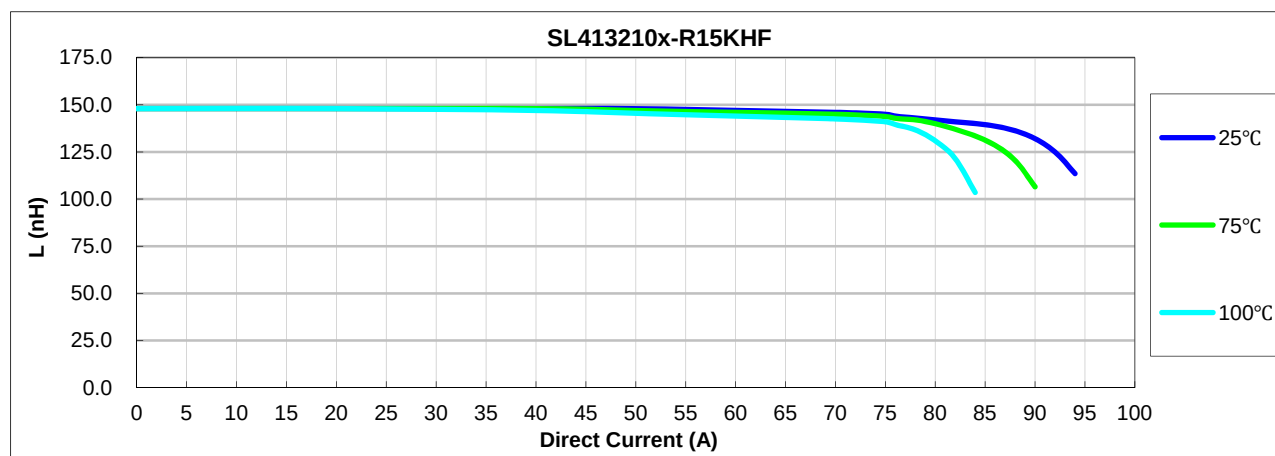
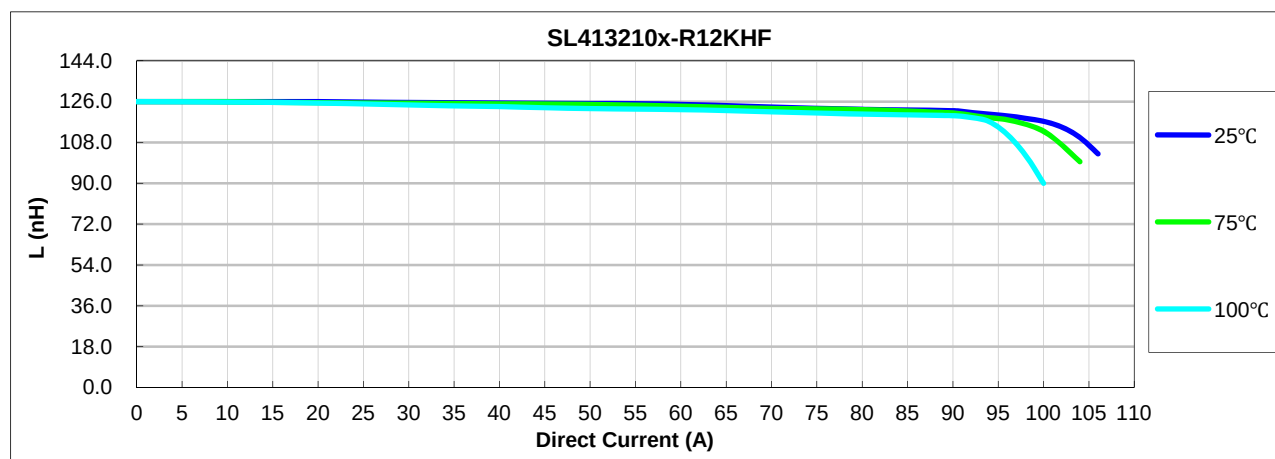
*Due to continuous product improvement, all specifications are subject to change without prior notice. Kindly contact an ITG field application engineer or a sales representative prior to purchase.



SL413210 Series



4. Inductance Characteristics of SL413210 Series (Inductance vs Current):



● New York 1 914 347 2474 ● Taipei 886 2 2698 8669 ● Kaohsiung 886 7 350 2275
 ● Tokyo 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 D: March 30, 2016

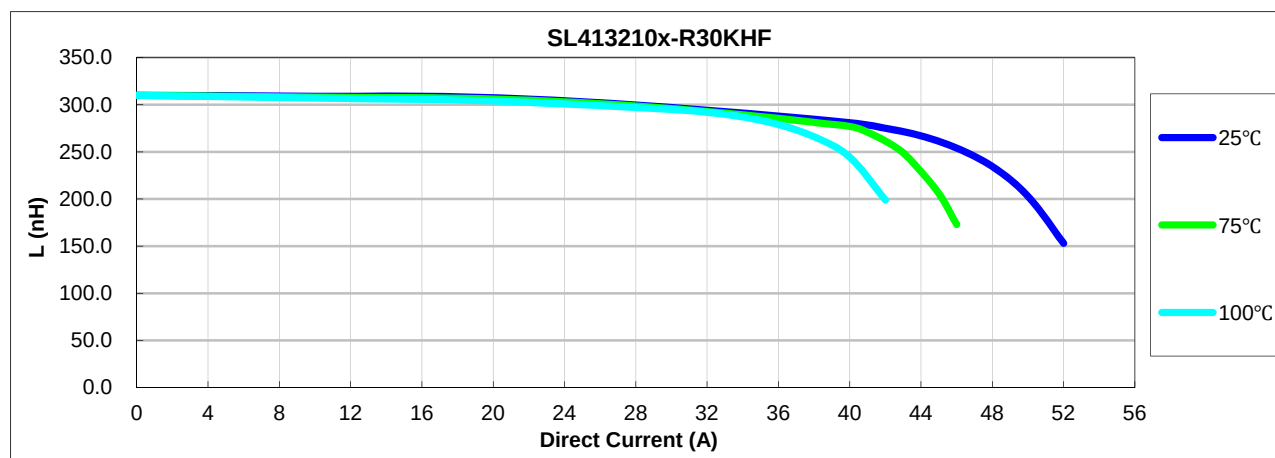
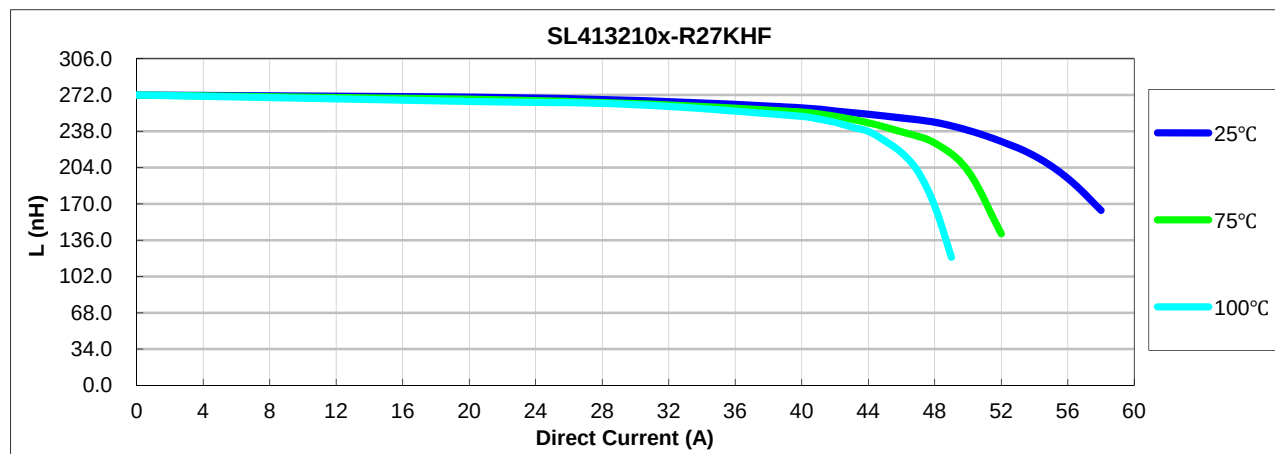
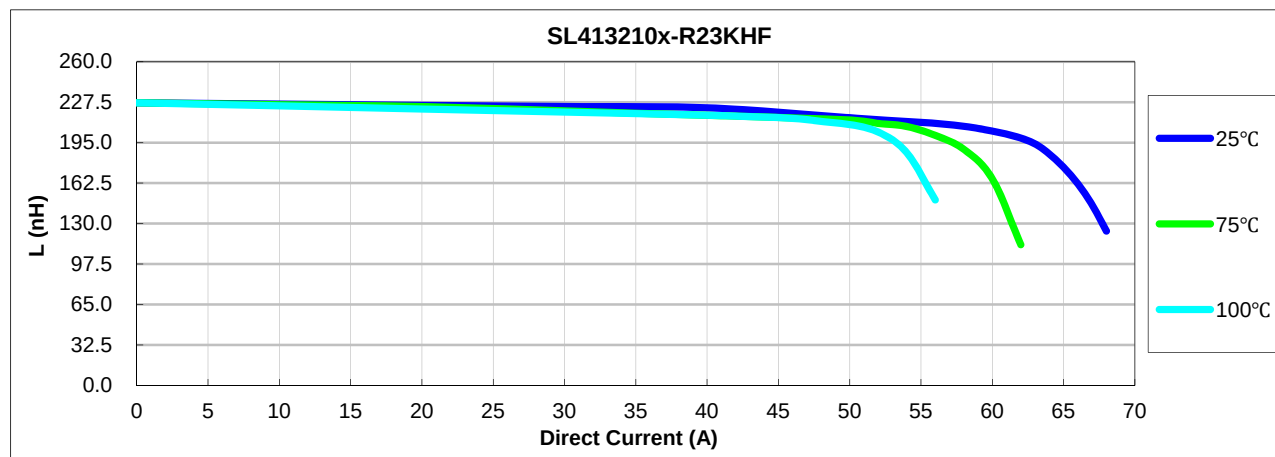
**Due to continuous product improvement, all specifications are subject to change without prior notice. Kindly contact an ITG field application engineer or a sales representative prior to purchase.*



SL413210 Series



4. Inductance Characteristics of SL413210 Series (Inductance vs Current):



● New York 1 914 347 2474 ● Taipei 886 2 2698 8669 ● Kaohsiung 886 7 350 2275
 ● Tokyo 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 D: March 30, 2016

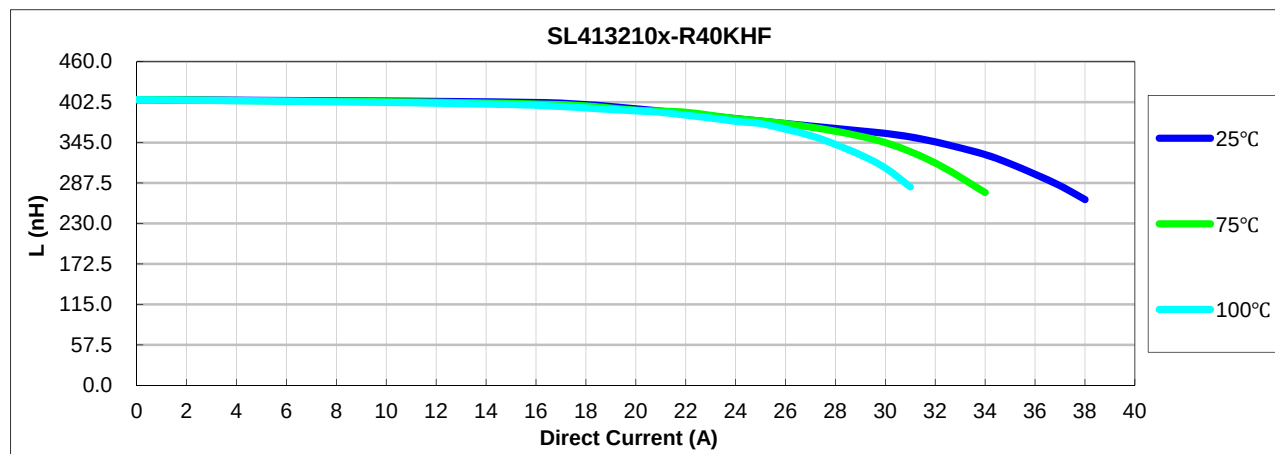
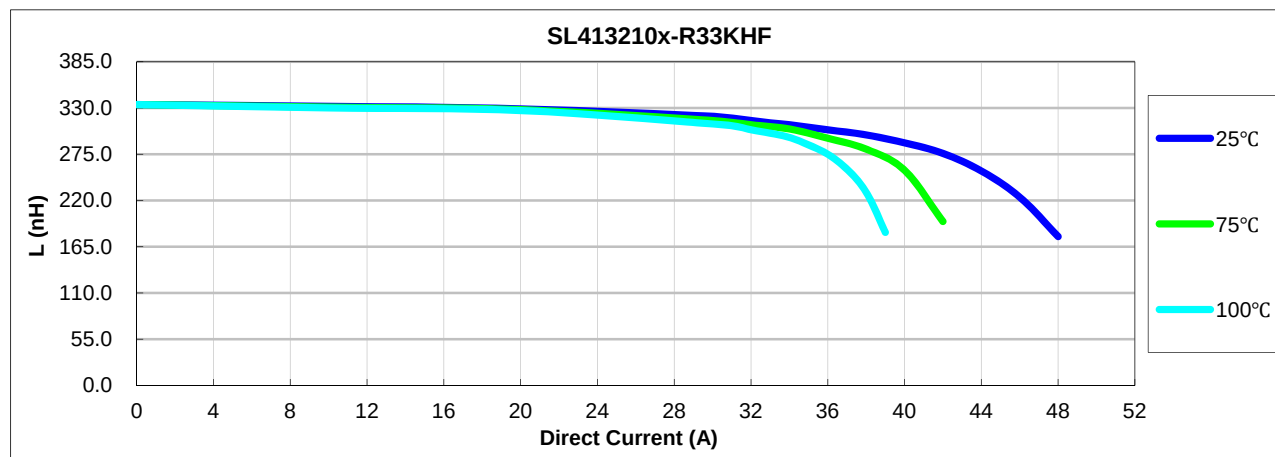
**Due to continuous product improvement, all specifications are subject to change without prior notice. Kindly contact an ITG field application engineer or a sales representative prior to purchase.*



SL413210 Series



4. Inductance Characteristics of SL413210 Series (Inductance vs Current):



● New York 1 914 347 2474 ● Taipei 886 2 2698 8669 ● Kaohsiung 886 7 350 2275
 ● Tokyo 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 D: March 30, 2016

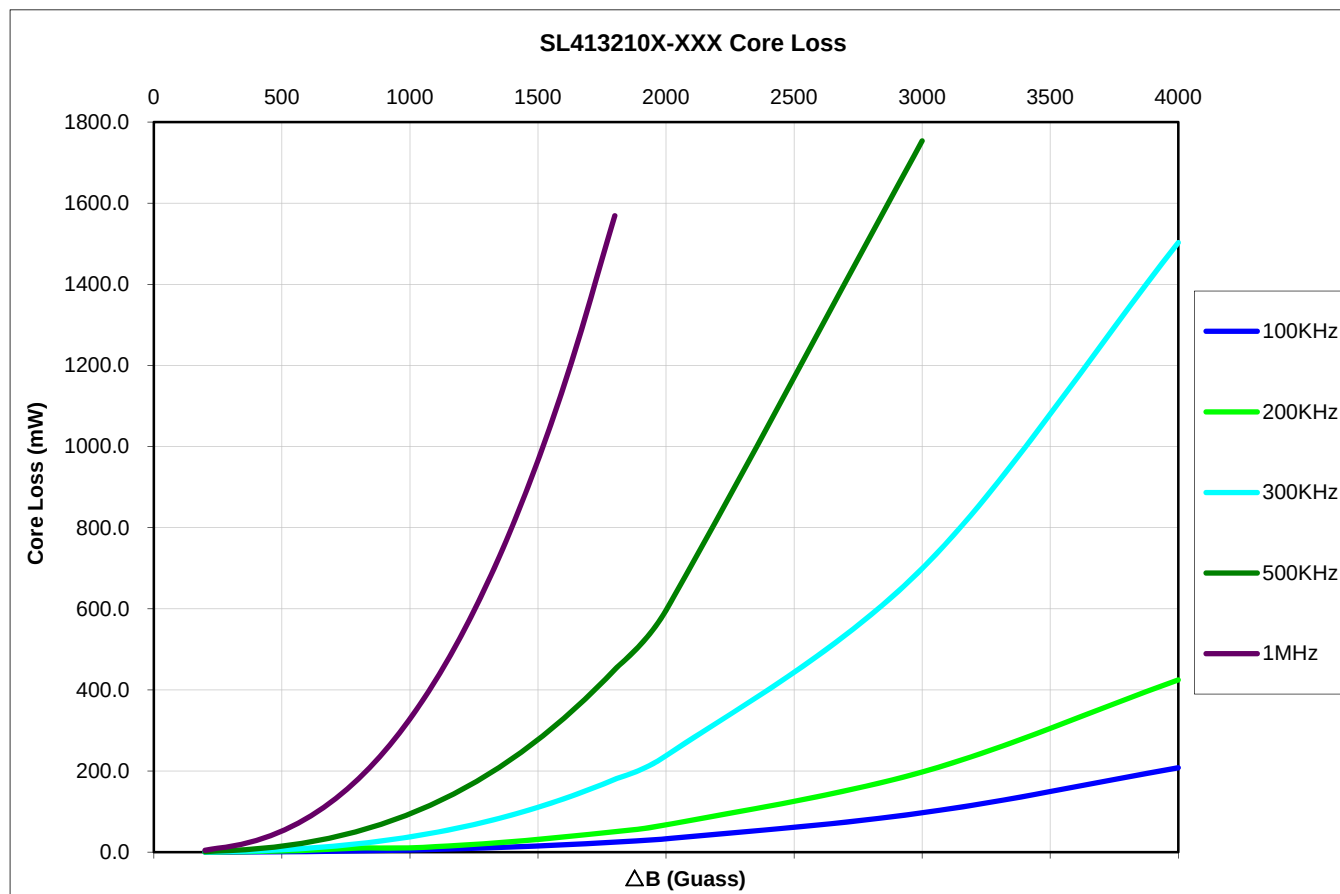
**Due to continuous product improvement, all specifications are subject to change without prior notice. Kindly contact an ITG field application engineer or a sales representative prior to purchase.*



SL413210 Series



4. Core loss Characteristics of SL413210 Series:



Where $\Delta B = 0.31 \cdot L(nH) \cdot \Delta I$

● New York 1 914 347 2474 ● Taipei 886 2 2698 8669 ● Kaohsiung 886 7 350 2275
● Tokyo 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 D: March 30, 2016

**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.*