

SLA40556 Series



1. Features of SLA40556 Series:

- Ferrite based SMD inductor with lower core loss.
- Inductance range: 120.0 nH to 180.0 nH, custom values are welcomed.
- High current output chokes, up to 107.0 Amp with approx. 20% roll off.
- Low profile 14.20 mm Max. height.
- 10.20 x 6.80/6.60 mm Foot Print.
- Ideal for Buck Converter, VRM & High Density Board Design.
- Operating frequency up to 1 MHz application.
- Operating Temperature Range -55°C to + 130°C. RoHs & HF compliant .
- T & R Qtys: 250 pcs , 13" Reel.

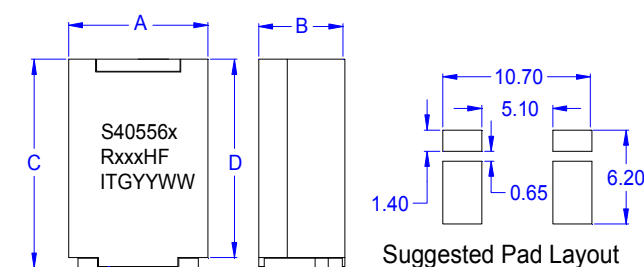


2. Electrical Characteristic of SLA40556 Series:

ITG Part Number	OCL ¹ (nH) ± 10%	DCR ³ (mΩ) ± 5.0%	Isat1 ⁴ (A) @25°C	Isat2 ⁴ (A) @75°C	Isat3 ⁴ (A) @100°C	Irms ⁵ (A) @25°C	Dim. B (mm) Max.	Fig
SLA40556A-R12KHF	120.00	0.29	115.00	107.00	98.00	53.00	6.80	1
SLA40556A-R15KHF	150.00	0.29	94.00	88.00	80.00	53.00	6.80	1
SLA40556A-R18KHF	180.00	0.29	88.00	82.00	75.00	53.00	6.60	1
SLA40556B-R12KHF	120.00	0.33	115.00	107.00	98.00	50.00	6.80	2
SLA40556B-R15KHF	150.00	0.33	94.00	88.00	80.00	50.00	6.80	2
SLA40556B-R18KHF	180.00	0.33	88.00	82.00	75.00	50.00	6.60	2
SLA40556C-R12KHF	120.00	0.29	115.00	107.00	98.00	53.00	6.80	2
SLA40556C-R15KHF	150.00	0.29	94.00	88.00	80.00	53.00	6.80	2
SLA40556C-R18KHF	180.00	0.29	88.00	82.00	75.00	53.00	6.60	2

3. Mechanical Dimension(Unit:mm):

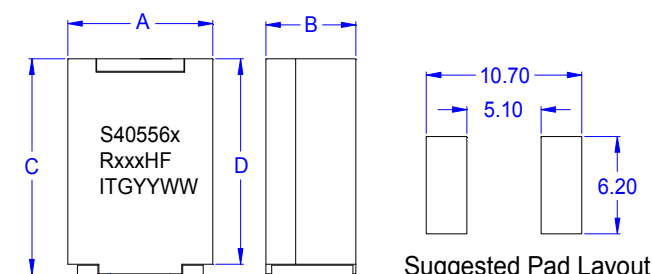
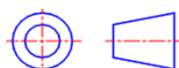
A (Max.)	B (Max.)	C (Max.)	D (Max.)	E (Nom.)	F ± 0.20	G ± 0.30
10.20	see table above	14.20	13.90	5.00	5.60	2.05



Part Marking:
S40556A: S40556 is part size, x is special code.
Rxxx: Rxx is inductance value in uH(R:decimal point),
x = tolerance, HF=halogen free.
ITGYYWW: ITG logo and YYWW is date code.

Fig 1

Third Angle Projection:



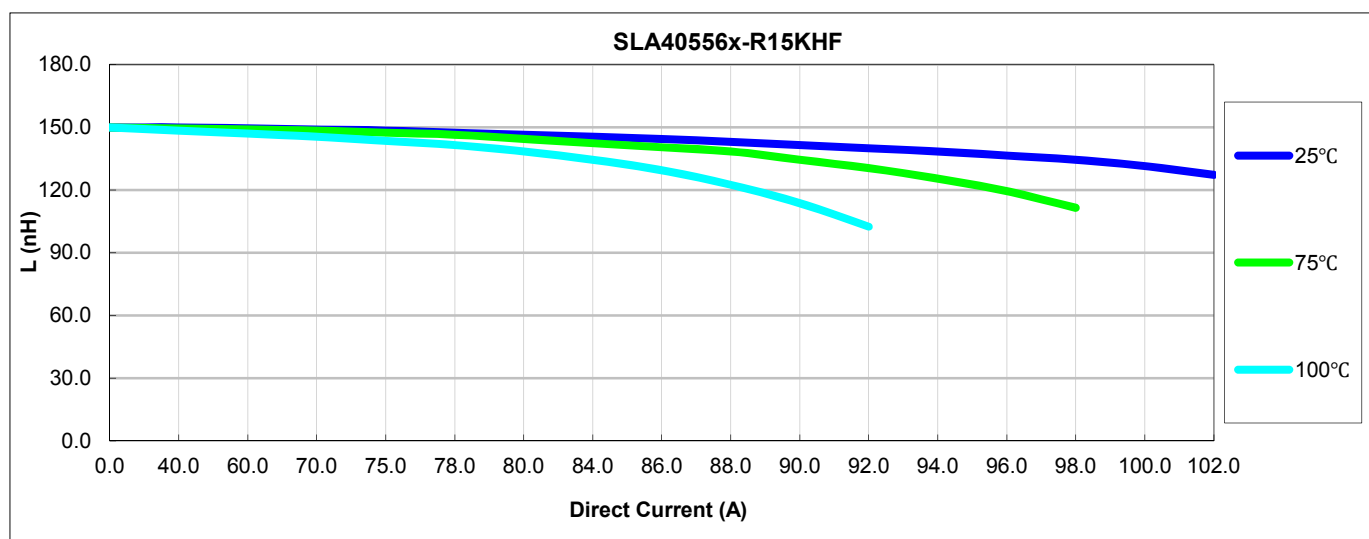
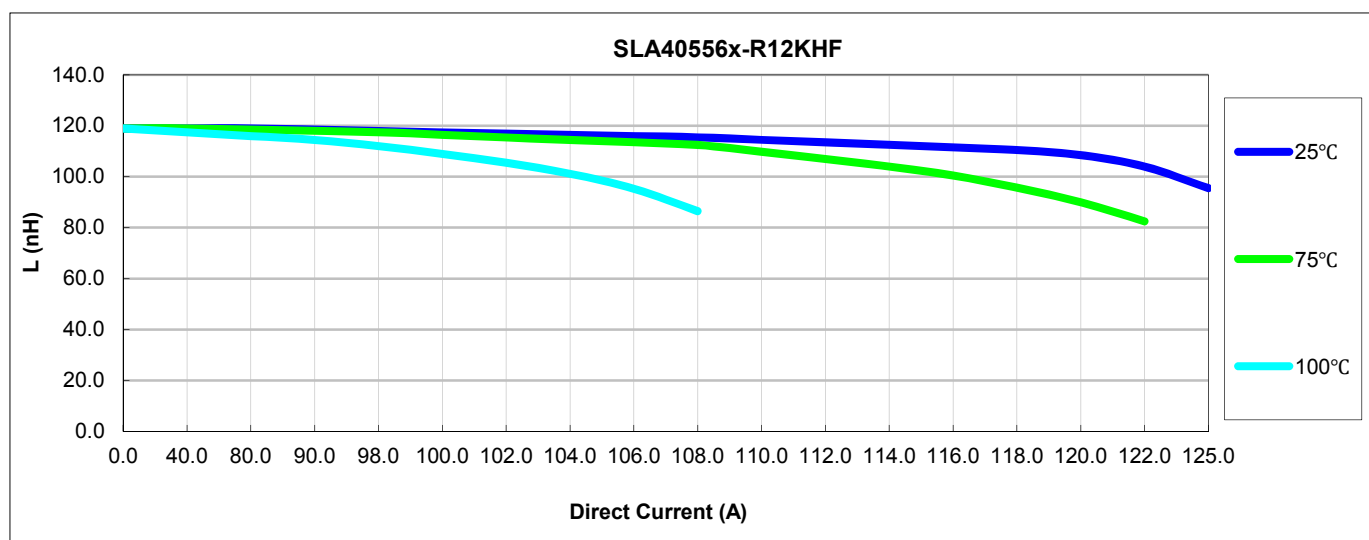
Part Marking:
S40556B: S40556 is part size, x is special code.
Rxxx: Rxx is inductance value in uH(R:decimal point),
x = tolerance, HF=halogen free.
ITGYYWW: ITG logo and YYWW is date code.

Fig 2

Notes:

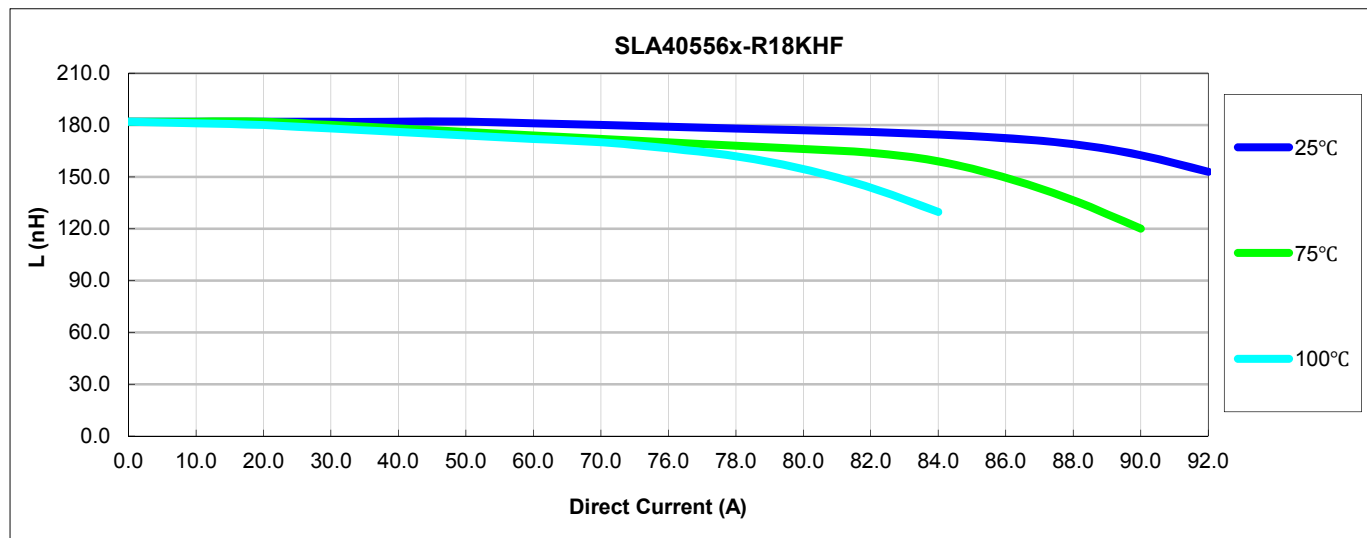
- 1> Open Circuit Inductance (OCL) test condition: 100KHz,0.1Vrms,0Adc at 25°C.
- 2> L @ Isat and L @ Irms Test condition: 100KHz,0.1Vrms (Ta=25°C).
- 3> The nominal DCR is measured from point "a" to point "b", as shown above on the mechanical drawing (Ta=25°C).
- 4> Isat1, Isat2 & Isat3 : DC current that will cause inductance to drop approximately by 20%.
- 5> Irms: DC current for an approximate temperature rise of 40°C without core loss. 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.

4. Inductance Characteristics (Inductance vs. Current):

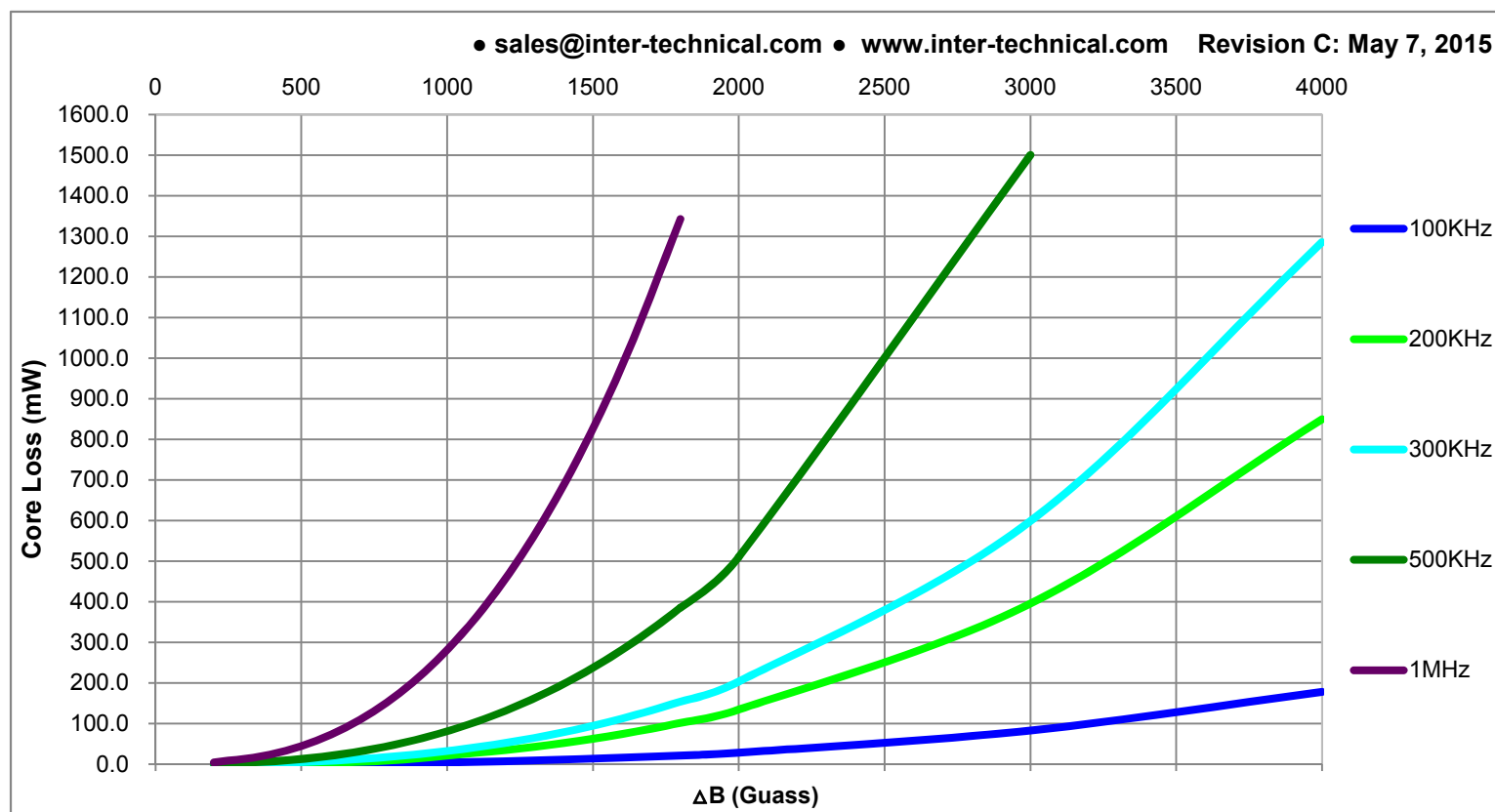


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Inductance vs. Current



5. Core Loss:



Where $\Delta B = 0.26 \times L(nH) \times \Delta I$