

1. Features of AF50175A Series :

- Ferrite based SMD inductor with lower core loss.
- Inductance Range: 50.0nH to 100.0nH, Custom values are welcomed.
- High current output chokes, up to 130.0 Amp with approx. 20% roll off.
- Low Profile 4.30 mm Max. height .
- Foot Print 12.80 x 5.00 mm .
- Perfect for high density designs with limited board space.
- Operating frequency up to 5.0 MHz application.
- Operating Temperature Range -55 °C to + 130 °C, RoHs & HF compliance .
- T & R Qty: 1000 pcs , 13" Reel ;

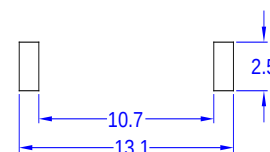
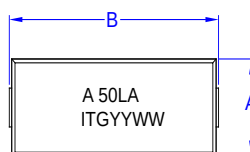


2. Electrical Characteristic of AF50175A Series:

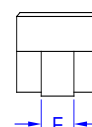
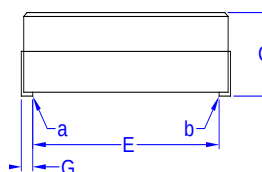
ITG Part Number	OCL ¹ (nH) ± 15%	L @ Isat1 ² (nH) Min.	DCR ³ (mΩ) ± 10%	Isat1 ⁴ (A) @25°C	Isat2 ⁴ (A) @75°C	Isat3 ⁴ (A) @100°C	Irms ⁵ (A) @25°C
AF50175A-50L	50.00	36.00	0.19	130.00	118.00	113.00	45.00
AF50175A-70L	70.00	50.40	0.19	92.00	88.00	85.00	45.00
AF50175A-100L	100.00	72.00	0.19	60.00	55.00	50.00	45.00

3. Mechanical Dimension(Unit : mm):

A	B	C	E	F	G
Max.	Max.	Max.	± 0.25	± 0.25	± 0.20
5.00	12.80	4.30	11.20	2.00	0.70



Suggested Pad Layout

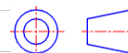


Part Marking:
A 50LA: A is part code, 50 is inductance value in nH,
L is tolerance, A is special code.
ITGYYWW: ITG logo and YYWW is Date Code.

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, 0.25Vrms (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 verified in the end application.

Third Angle Projection:



4. Inductance Characteristics (Inductance vs. Current):

