

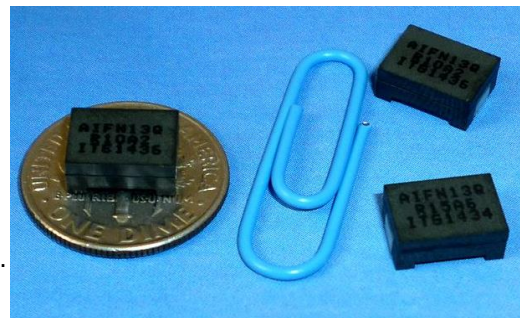


AIFN13Q Series



1. Features:

- Designed for use with Infineon® DrBlade.
- Ferrite based SMD inductor with lower core loss.
- Inductance range: 105.00 nH to 150.00 nH, custom values are welcomed.
- High current output chokes, up to 47.00 Amp with approx. 20% roll off.
- Low profile 4.20 mm Max. height.
- 9.40 x 6.70 mm Foot Print.
- Perfect for high density designs with limited board space.
- Saves 50% of application board area when compared to standard design approach.
- Operating frequency up to 2.0 MHz.
- Operating Temperature Range -55°C to + 130°C , RoHs & HF compliant .
- T & R Qty: 1200 pcs , 13" Reel.

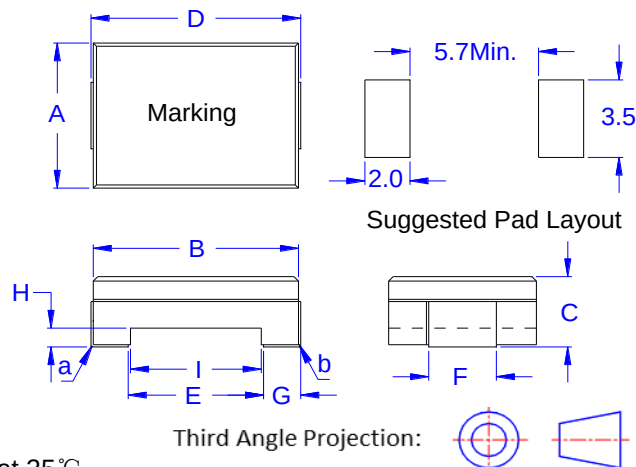


2. Electrical Characteristic of AIFN13Q Series:

Part Number	OCL ¹ (nH) ± 20%	L @ Isat1 ² (nH) Min.	DCR ³ (mΩ) ± 8.0%	Isat1 ⁴ (A) @25°C	Isat2 ⁴ (A) @75°C	Isat3 ⁴ (A) @100°C	Irms ⁵ (A) @25°C
AIFN13Q-R10MHF	105.00	75.60	0.35	47.00	44.00	43.00	33.00
AIFN13Q-R12MHF	125.00	90.00	0.35	38.00	35.00	34.00	33.00
AIFN13Q-R15MHF	150.00	108.00	0.35	32.00	29.00	28.00	33.00

3. Mechanical Dimension(Unit:mm):

A (Max.)	B (Max.)	C (Max.)	D (Max.)	E (Nom.)	F ± 0.15	G ± 0.25	H Min.	I Min.
6.70	9.30	4.20	9.40	5.80	3.00	1.60	0.80	5.75



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 as verified in the end application.



AIFN13Q Series



4. Inductance Characteristics (Inductance vs. Current):

