

SQ4331 Series



1. Features of SQ4331 Series:

- Ferrite based SMD inductor with lower core loss.
- Inductance range: 0.40uH to 1.00 uH , custom values are welcomed.
- High current output chokes up to 44.0 Amp with approx. 20% roll off.
- Low profile 8.00 mm Max. height.
- 10.80 x 9.20 mm Foot Print.
- Ideal for Buck Converter, VRM & High Density Board Design.
- Operating frequency of up to 1.0MHz.
- Operating temperature range of -55° C to + 130° C. RoHS & HF compliant.
- T & R Qty's: 500pcs, 13" Reel.

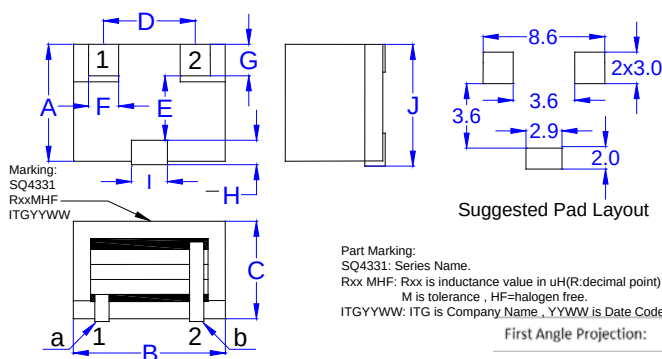


2. Electrical Characteristics of SQ4331 Series:

ITG Part Number	OCL ¹ (uH) ±20%	DCR ³ (mΩ) ±6%	Isat1 ⁴ (A) @25°C	Isat2 ⁴ (A) @100°C	Irated (A) @25°C	L@Irated (uH) Typ.@25°C	Irms ⁵ (A) @25°C
SQ4331-R40MHF	0.40	0.91	44.00	36.00	38.00	0.39	38.00
SQ4331-R45MHF	0.45	0.91	42.00	33.00	38.00	0.43	38.00
SQ4331-R55MHF	0.55	0.91	35.00	28.00	35.00	0.48	38.00
SQ4331-R60MHF	0.60	0.91	32.50	26.00	32.50	0.51	38.00
SQ4331-1R0MHF	1.00	1.76	26.00	20.30	26.00	0.85	26.10

3. Mechanical Dimension of SQ4331 Series:

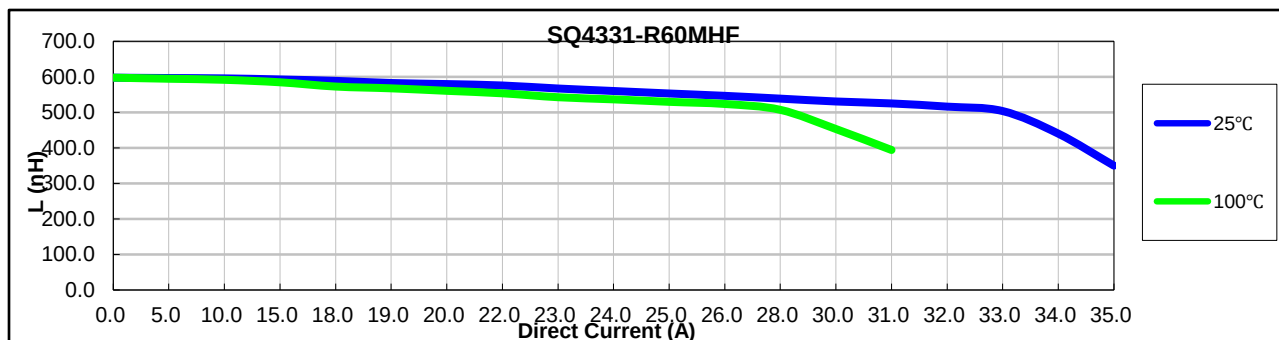
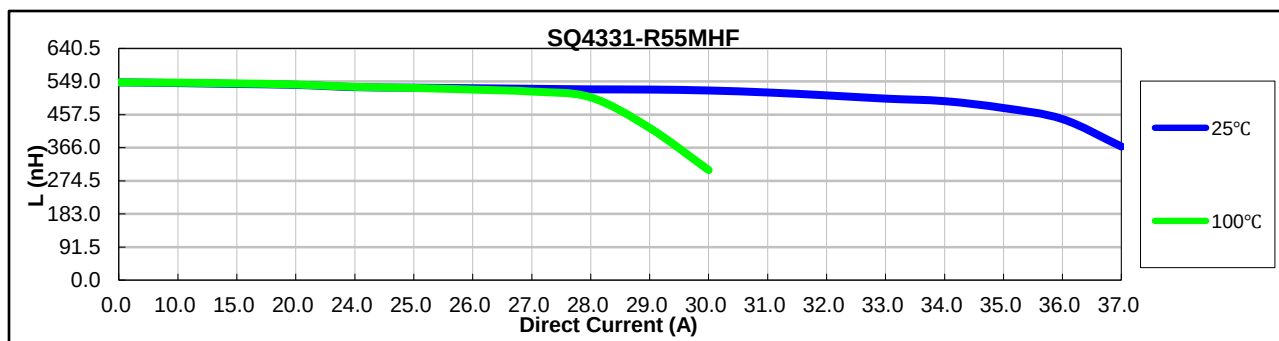
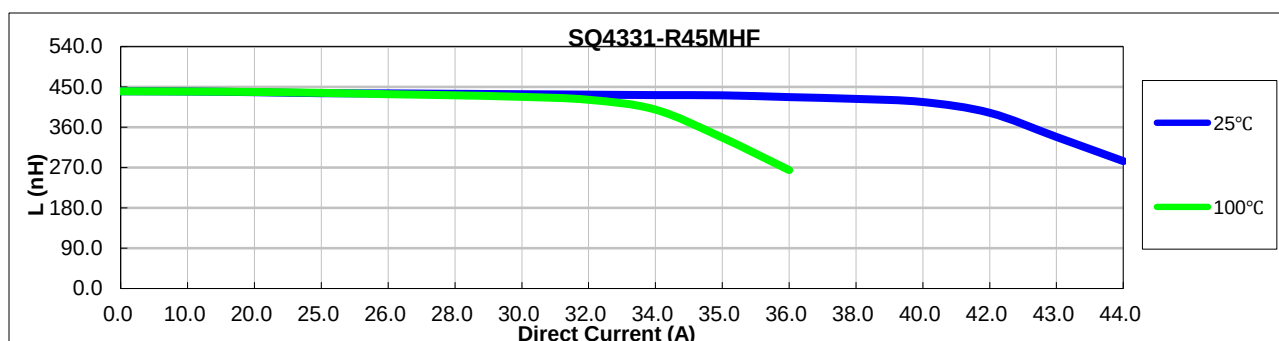
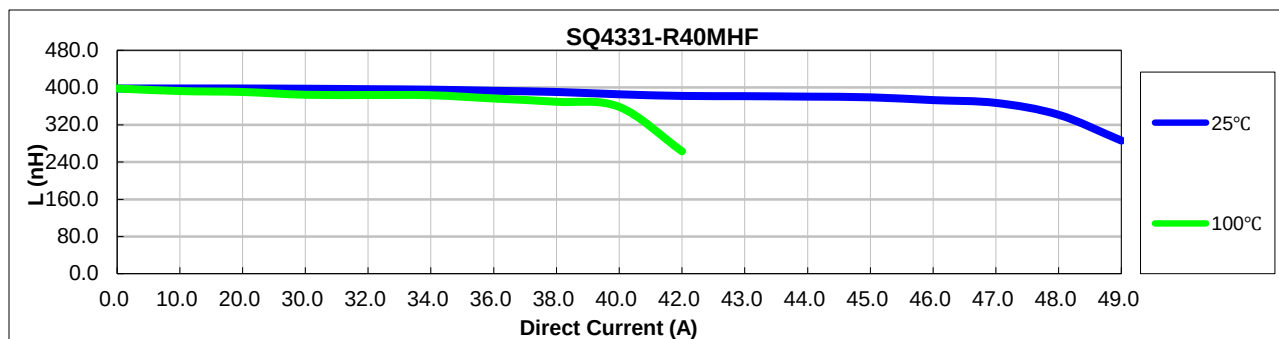
A	B	C	D	E	F	G	H	I	J
Max.	Max.	Max.	± 0.4	± 0.4	± 0.4	± 0.2	± 0.2	± 0.2	Max.
9.20	10.80	8.00	4.50	3.50	1.80	2.30	2.40	2.50	8.50



Notes:

1. Open Circuit Inductance (OCL) test condition: 100KHz , 0.1Vrms,0A_{dc} 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 : 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.
6. It is recommended the part temperature not exceed 130° C under worst case operating conditions as verified in the end application.

4. Inductance Characteristics of SQ4331 Series (Inductance vs Current):



4. Inductance Characteristics of SQ4331 Series (Inductance vs Current):

