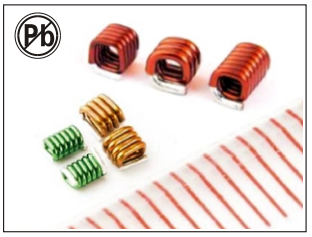
SMD Coil
SMAR SERIES



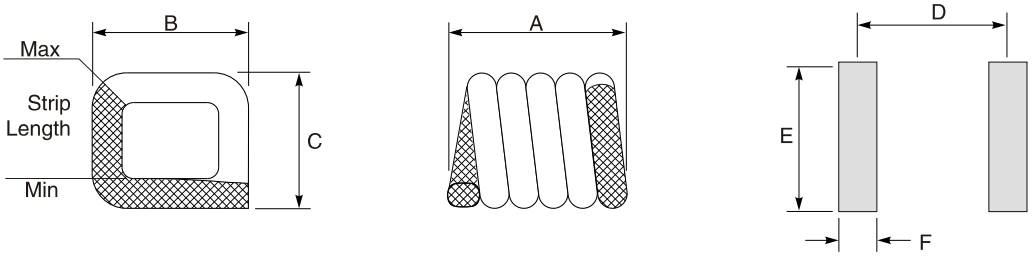
FEATURES:

- Inductance values from 5.5 nH up to 27.3 nH.
- Excellent Quality Factor– up to 130.
- High self–resonant frequency.
- Ultra–miniature size, hight currents up to 4.4 Amps.
- All value availbale in 2%, 5% tolerance.
- Ag–solder coated leads ensure reliable soldering.
- Flat top and bottom for reliable pick and place and mechanical stability.

APPLICATIONS:

- Especially for RF applications.
- Ideal for high current applications.
- Broad band filter.
- RF–Decoupling.

PHYSICAL CHARACTERISTICS:



Part No.	A ±0.15	B ±0.15	C ±0.15	D	E	F	Weight (mg)
SMAR1814–5N5□	1.35	1.83	1.40	0.96	2.60	0.51	9.9
SMAR1814–6N0□	1.30	1.83	1.40	0.99	2.60	0.51	8.5
SMAR1814–8N9□	1.63	1.83	1.40	1.27	2.60	0.51	10.8
SMAR1814–12N□	1.93	1.83	1.40	1.63	2.60	0.51	13.6
SMAR1814–16N□	2.29	1.83	1.40	1.96	2.60	0.51	16.1
SMAR1814–19N□	2.59	1.83	1.40	2.3	2.60	0.51	18.7
SMAR1815–6N9□	1.30	1.83	1.52	1.02	2.60	0.51	9.1
SMAR1815–10N□	1.63	1.83	1.52	1.32	2.60	0.51	11.5
SMAR1815–11N□	1.55	1.83	1.52	1.24	2.60	0.51	11.5
SMAR1815–14N□	1.93	1.83	1.52	1.57	2.60	0.51	14.0
SMAR1815–17N□	2.29	1.83	1.52	1.93	2.60	0.51	16.8
SMAR1815–22N□	2.59	1.83	1.52	2.30	2.60	0.51	19.4
SMAR2118–8N1□	1.47	2.14	1.83	1.12	2.80	0.64	12.8
SMAR2118–12N□	1.85	2.14	1.83	1.45	2.80	0.64	16.9
SMAR2118–14N□	1.55	2.14	1.83	1.24	2.80	0.64	13.5
SMAR2118–17N□	2.21	2.14	1.83	1.83	2.80	0.64	21.1
SMAR2118–22N□	2.56	2.14	1.83	2.18	2.80	0.64	24.7
SMAR2118–23N□	2.24	2.14	1.83	1.90	2.80	0.64	19.2
SMAR2118–25N□	2.97	2.14	1.83	2.57	2.80	0.64	27.6
SMAR2118–27N□	2.97	2.14	1.83	2.57	2.80	0.64	28.7

Packaging code

- S=7" machine–ready reel. EIA–48 Embossed plastic tape. 2000 pcs/reel
- S=13" machine–ready reel. EIA–48 Embossed plastic tape. 7500 pcs/reel

ELECTRICAL CHARACTERISTICS: @25℃

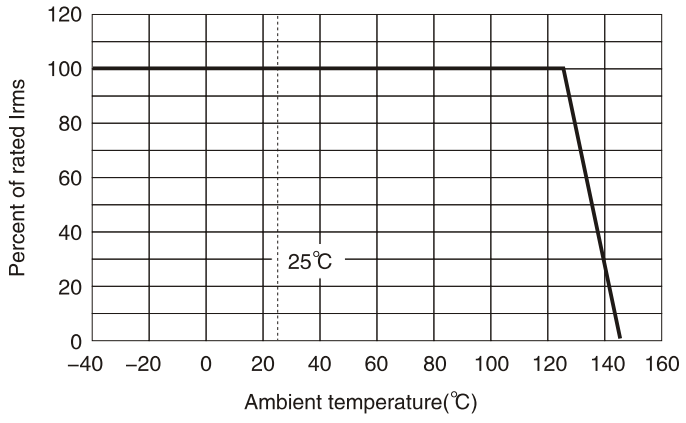
Part No.	Inductance (nH)	Tol ± %	Q Typ.	SRF(GHz) Typ.	DCR(mΩ) Max	Irms (A)
SMAR1814–5N5□	5.5	2,5	60	4.9	3.4	2.9
SMAR1814–6N0□	6.0	2,5	64	5.2	6.0	2.9
SMAR1814–8N9□	8.9	2,5	90	4.3	7.0	2.9
SMAR1814–12N□	12.0	2,5	90	4.8	8.0	2.9
SMAR1814–16N□	16.0	2,5	90	4.4	9.0	2.9
SMAR1814–19N□	19.0	2,5	90	4.0	10.0	2.9
SMAR1815–6N9□	6.9	2,5	100	4.6	6.0	2.7
SMAR1815–10N□	10.0	2,5	100	4.0	7.0	2.7
SMAR1815–11N□	11.0	2,5	90	3.6	6.3	2.7
SMAR1815–14N□	14.0	2,5	100	4.3	8.0	2.7
SMAR1815–17N□	17.0	2,5	100	4.0	9.0	2.7
SMAR1815–22N□	22.0	2,5	100	3.5	10.0	2.7
SMAR2118–8N1□	8.1	2,5	130	5.2	6.0	4.4
SMAR2118–12N□	12.0	2,5	130	4.3	7.0	4.4
SMAR2118–14N□	14.0	2,5	90	3.0	7.2	4.4
SMAR2118–17N□	17.0	2,5	130	3.4	8.0	4.4
SMAR2118–22N□	22.0	2,5	130	3.7	9.0	4.4
SMAR2118–23N□	23.0	2,5	130	2.6	10.0	4.4
SMAR2118–25N□	25.0	2.5	130	2.5	10.0	4.4
SMAR2118–27N□	27.0	2.5	130	3.2	10.0	4.4

□ Inductance Tolerance: G: ±2%, J: ±5%

Notes:

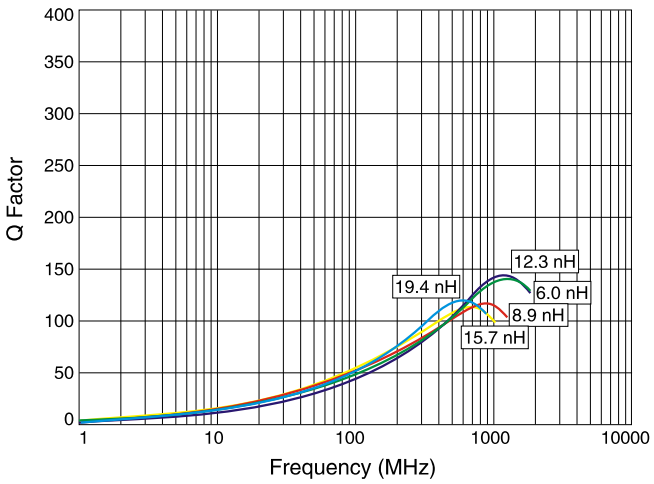
1. Inductance meansured at 400MHz, 0.1Vrms, 0 A using HP4287A LCR meter or equivalent with 9699 test fixture.
2. Q meansured at 400MHz, using HP4287A LCR meter or equivalent.
3. SRF meansured using HP8753 network analyzer and SMD test fixture.
4. Irms: Current that causes a 20℃ temperature rise from 25℃ ambient.
5. Resistance to soldering heat : Max three 40s reflows at 260℃, parts cooled to room temperature between cycles.
6. Temperature Cofficient of Inductance: +5 to + 70ppm/℃.
7. Operating temperature: –40℃ ~ +125℃, (Including coil's self temperature rise).
8. Ambient temperature: –40℃ ~ +125℃. (refering to Irms)
9. Storage temperature(on tape & reel packing): –40℃ ~ +80℃; 75% RH max.

Irms derating

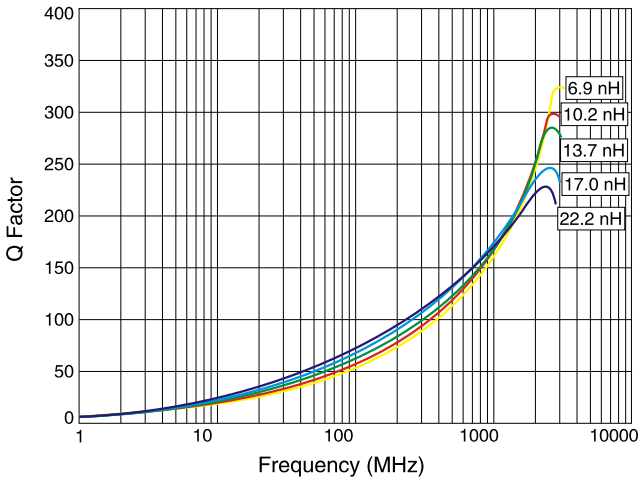


Typical Q vs Frequency

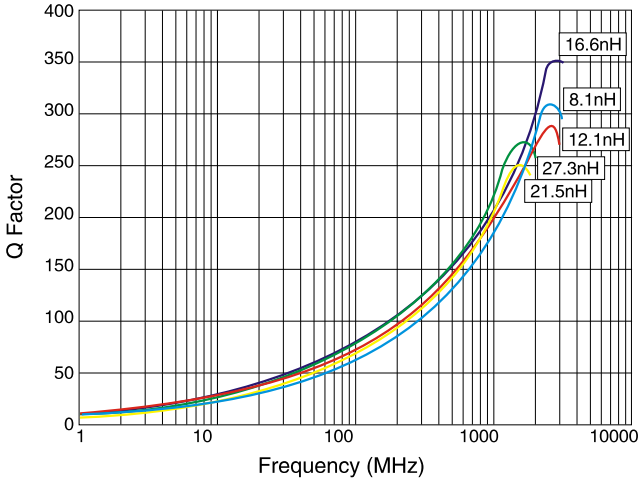
SMAR1814



SMAR1815

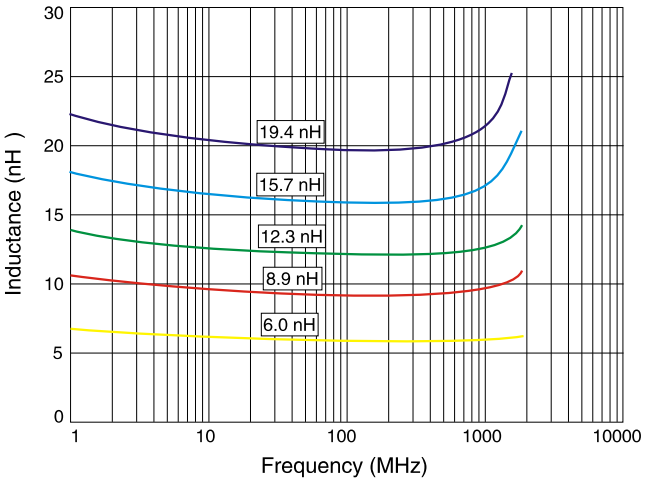


SMAR2118

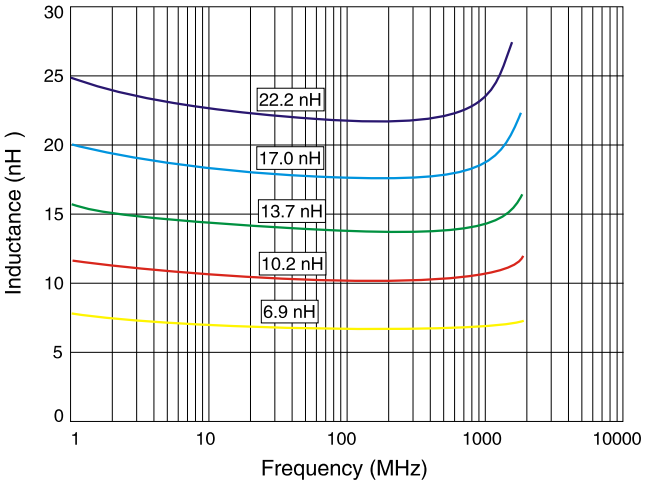


Typical L vs Frequency

SMAR1814



SMAR1815



SMAR2118