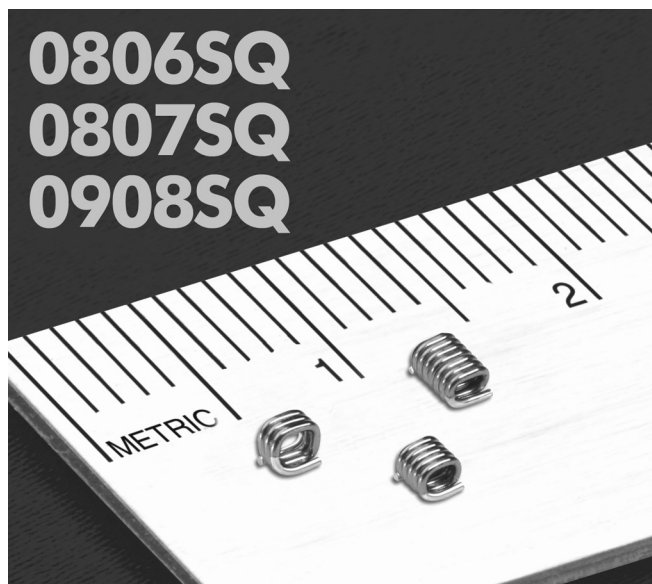




Square Air Core Inductors



- Excellent Q factors – up to 130; current ratings up to 4.4 Amps!
- 20 values from 5.5 to 27 nH, at 5% and 2% tolerance
- Flat top and bottom for reliable pick and place and mechanical stability

Designer's Kit C424 contains 10 each of all 5% values;
Designer's Kit C424-2 contains 10 each of all 2% values

Environmental RoHS compliant, halogen free

Terminations RoHS compliant tin-silver over copper

Ambient temperature –40°C to +125°C with Irms current

Maximum part temperature +145°C (ambient + temp rise).

Storage temperature Component: –40°C to +125°C.

Tape and reel packaging: –40°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Temperature Coefficient of Inductance (TCL) +5 to +70 ppm/°C

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Mean Time Between Failures (MTBF) 1 billion hours

Packaging 2000/7" reel; 7500/13" reel

Plastic tape: 12 mm wide, 0.254 mm thick, 4 mm pocket spacing

Recommended pick and place nozzle: OD: 0.054"; ID: 0.031"

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

Part number ¹	Inductance ² (nH)	% tol ³	Q ⁴ typ	SRF typ ⁵ (GHz)	DCR max (mOhm)	Irms ⁶ (A)
0806SQ-5N5_L_	5.5	5,2	60	4.9	3.4	2.9
0806SQ-6N0_L_	6.0	5,2	64	5.2	6.0	2.9
0806SQ-8N9_L_	8.9	5,2	90	4.3	7.0	2.9
0806SQ-12N_L_	12.3	5,2	90	4.8	8.0	2.9
0806SQ-16N_L_	15.7	5,2	90	4.4	9.0	2.9
0806SQ-19N_L_	19.4	5,2	90	4.0	10.0	2.9
0807SQ-6N9_L_	6.9	5,2	100	4.6	6.0	2.7
0807SQ-10N_L_	10.2	5,2	100	4.0	7.0	2.7
0807SQ-11N_L_	11.2	5,2	90	3.6	6.3	2.7
0807SQ-14N_L_	13.7	5,2	100	4.3	8.0	2.7
0807SQ-17N_L_	17.0	5,2	100	4.0	9.0	2.7
0807SQ-22N_L_	22.0	5,2	100	3.5	10.0	2.7
0908SQ-8N1_L_	8.1	5,2	130	5.2	6.0	4.4
0908SQ-12N_L_	12.1	5,2	130	4.3	7.0	4.4
0908SQ-14N_L_	14.7	5,2	90	3.0	7.2	4.4
0908SQ-17N_L_	16.6	5,2	130	3.4	8.0	4.4
0908SQ-22N_L_	21.5	5,2	130	3.7	9.0	4.4
0908SQ-23N_L_	23.0	5,2	120	2.6	10.0	4.4
0908SQ-25N_L_	25.0	5,2	130	2.5	10.0	4.4
0908SQ-27N_L_	27.3	5,2	130	3.2	10.0	4.4

1. Please specify **tolerance, termination and packaging** codes:

0908SQ-27NGLC

Tolerance: **G** = 2%, **J** = 5% (Table shows stock tolerances in bold.)

Termination: **L** = RoHS compliant tin-silver (96.5/3.5) over copper.

Special order, added cost:

T = RoHS tin-silver-copper (95.5/4/0.5) over copper
or **S** = non-RoHS tin-lead (63/37) over copper.

Packaging: **C** = 7" machine-ready reel. EIA-481 embossed plastic tape.

B = Less than full reel. In tape, but not machine ready.
To have a leader and trailer added (\$25 charge),
use code letter C instead.

D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked.

2. Inductance measured at 400 MHz, 0.1 Vrms, 0 A using an Agilent/HP 4287A LCR meter or equivalent with a Coilcraft CCF1166 test fixture and Coilcraft-provided correlation pieces.
3. Tolerances in bold are stocked for immediate shipment.
4. Q measured at 400 MHz using an Agilent/HP 4291A impedance analyzer or equivalent.
5. SRF measured using an Agilent/HP 8753 network analyzer and a Coilcraft SMD-D test fixture.
6. Current that causes a 20°C temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
7. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com

UK +44-1236-730595 sales@coilcraft-europe.com

Taiwan +886-2-2264 3646 sales@coilcraft.com.tw

China +86-21-6218 8074 sales@coilcraft.com.cn

Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 617-1 Revised 10/13/15

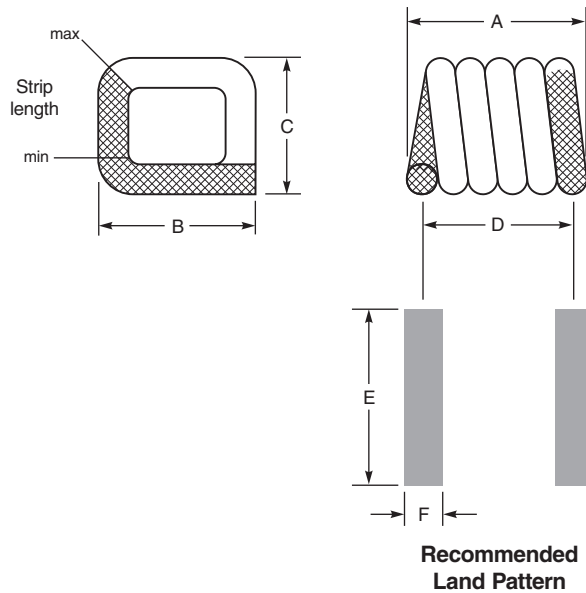
© Coilcraft Inc. 2016

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.

COILCRAFT ACCURATE
PRECISION REPEATABLE
 MEASUREMENTS
 SEE WEB SITE **TEST FIXTURES**



Square Air Core Inductors



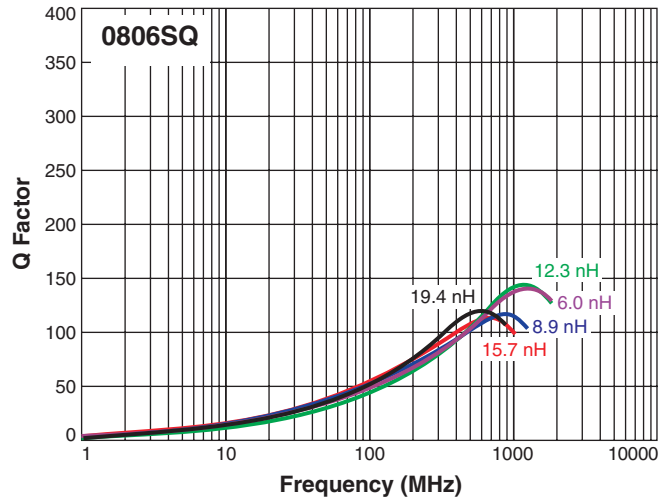
Part number	A	B	C	D	E	F	Weight (mg)	Tape pocket depth (mm)
0806SQ-5N5	1,346 ±0,102	1,829 ±0,254	1,397 ±0,102	0,962	2,6	0,51	9,9	1,42
0806SQ-6N0	1,295 ±0,102	1,829 ±0,254	1,397 ±0,102	1,02	2,6	0,51	8,5	1,42
0806SQ-8N9	1,626 ±0,152	1,829 ±0,254	1,397 ±0,102	1,32	2,6	0,51	10,8	1,55
0806SQ-12N	1,930 ±0,152	1,829 ±0,254	1,397 ±0,102	1,63	2,6	0,51	13,6	1,52
0806SQ-16N	2,286 ±0,152	1,829 ±0,254	1,397 ±0,102	1,96	2,6	0,51	16,1	1,50
0806SQ-19N	2,591 ±0,152	1,829 ±0,254	1,397 ±0,102	2,29	2,6	0,51	18,7	1,55
0807SQ-6N9	1,295 ±0,102	1,829 ±0,254	1,524 ±0,254	1,02	2,6	0,51	9,1	1,60
0807SQ-10N	1,626 ±0,152	1,829 ±0,254	1,524 ±0,254	1,32	2,6	0,51	11,5	1,57
0807SQ-11N	1,549 ±0,152	1,829 ±0,254	1,524 ±0,254	1,24	2,6	0,51	11,5	1,55
0807SQ-14N	1,930 ±0,152	1,829 ±0,254	1,524 ±0,254	1,63	2,6	0,51	14,0	1,60
0807SQ-17N	2,286 ±0,152	1,829 ±0,254	1,524 ±0,254	1,96	2,6	0,51	16,8	1,68
0807SQ-22N	2,591 ±0,152	1,829 ±0,254	1,524 ±0,254	2,29	2,6	0,51	19,4	1,68
0908SQ-8N1	1,473 ±0,152	2,134 ±0,152	1,829 ±0,203	1,12	2,8	0,64	12,8	2,01
0908SQ-12N	1,854 ±0,152	2,134 ±0,152	1,829 ±0,203	1,45	2,8	0,64	16,9	1,96
0908SQ-14N	1,549 ±0,152	2,134 ±0,152	1,829 ±0,203	1,24	2,8	0,64	13,5	1,52
0908SQ-17N	2,210 ±0,152	2,134 ±0,152	1,829 ±0,203	1,83	2,8	0,64	21,1	2,01
0908SQ-22N	2,565 ±0,152	2,134 ±0,152	1,829 ±0,203	2,18	2,8	0,64	24,7	1,98
0908SQ-23N	2,235 ±0,152	2,134 ±0,152	1,829 ±0,203	1,90	2,8	0,64	19,2	1,98
0908SQ-25N	2,972 ±0,152	2,134 ±0,152	1,829 ±0,203	2,57	2,8	0,64	27,6	2,01
0908SQ-27N	2,972 ±0,152	2,134 ±0,152	1,829 ±0,203	2,57	2,8	0,64	28,7	2,01

All dimensions are in mm.

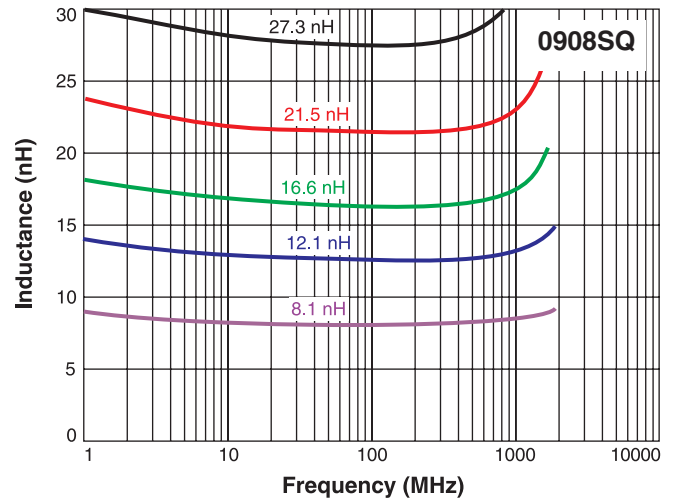
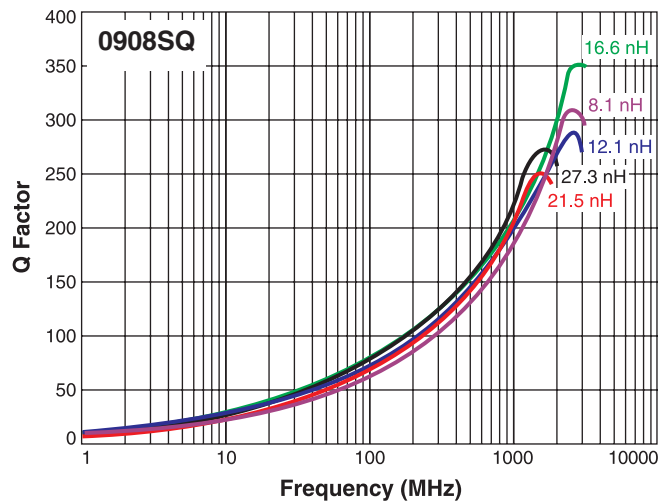
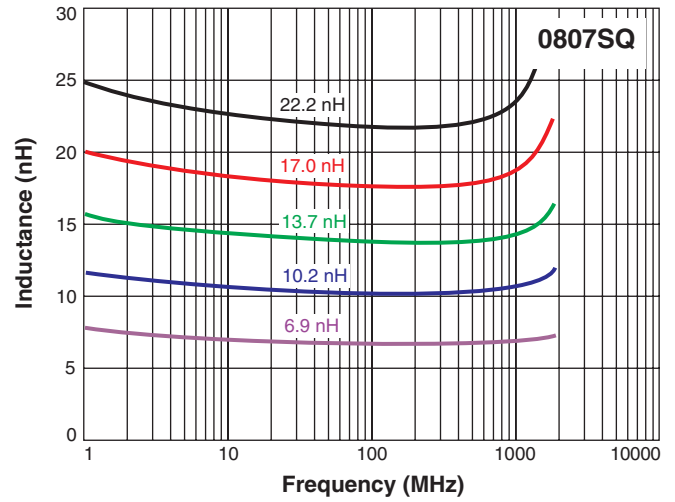
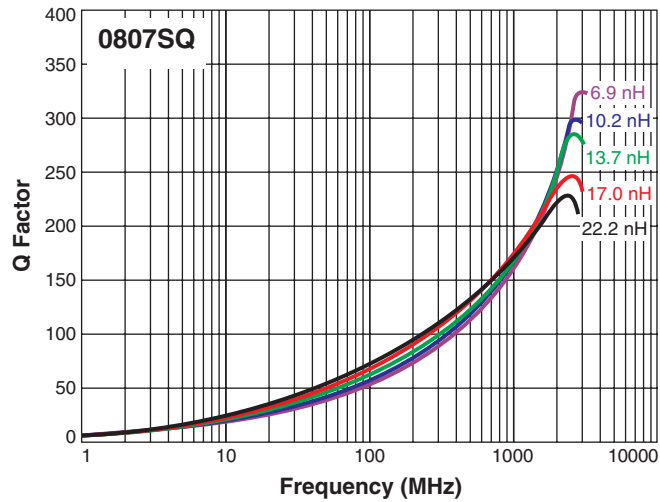
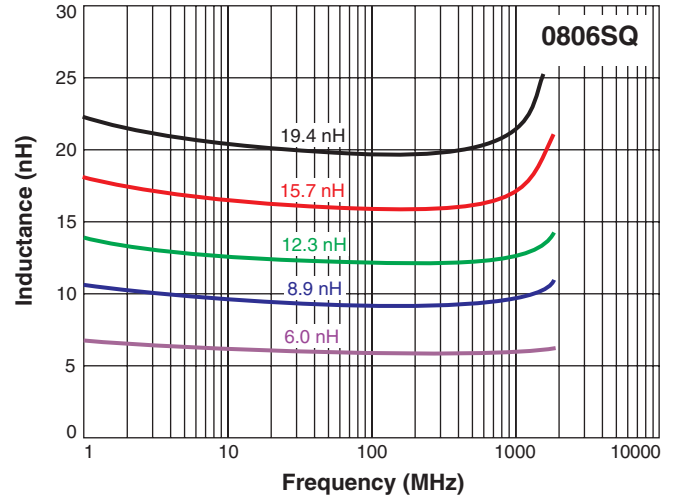


Square Air Core Inductors

Typical Q vs Frequency



Typical L vs Frequency



US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 617-2 Revised 10/13/15
 © Coilcraft Inc. 2016
 This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.