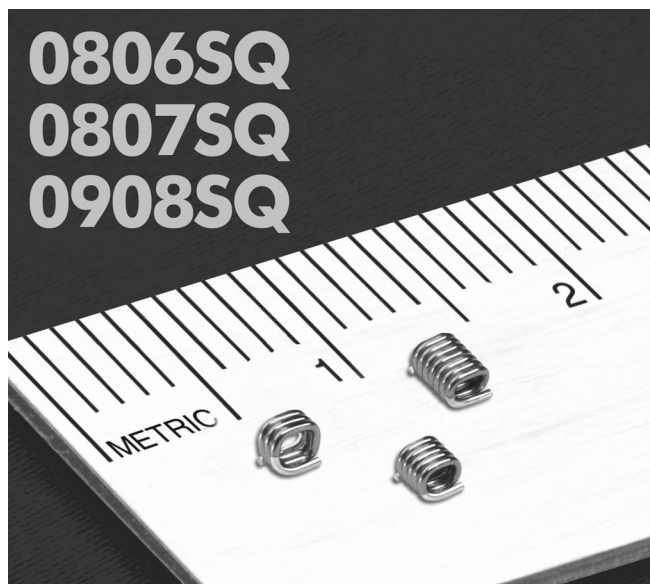


Square Air Core Inductors



- Excellent Q factors – up to 130
- Current handling as high as 4.4 Amps!
- 20 inductance values from 5.5 to 27 nH
- Flat top and bottom for reliable pick and place and mechanical stability
- All values available in 2% tolerance

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 I_{rms} current, +125°C to +145°C with derated current

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

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)	I _{rms} 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 V_{rms}, 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.
7. Electrical specifications at 25°C.

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



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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

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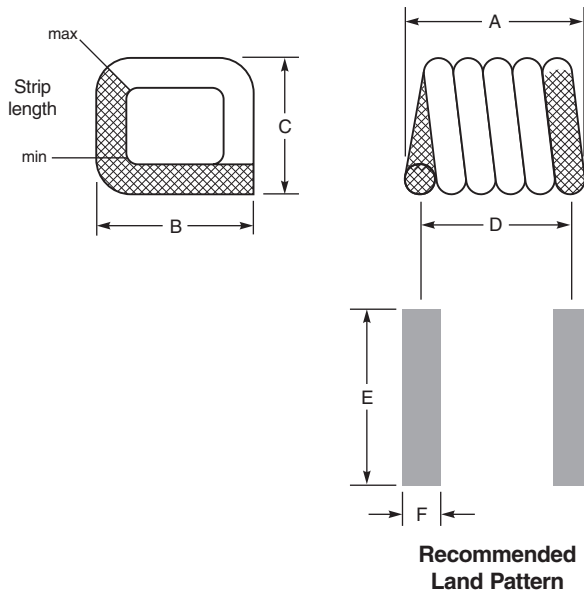
S-Parameter files

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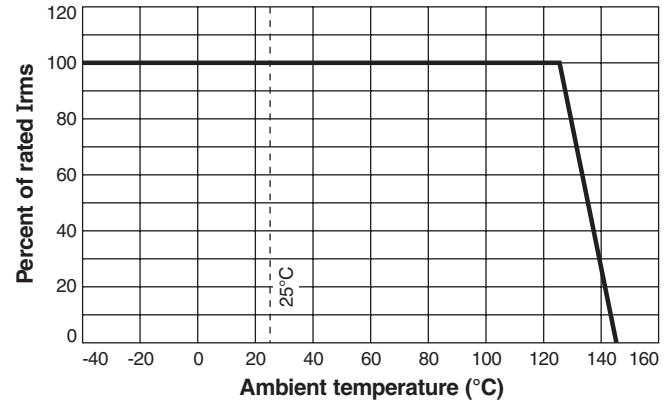
SPICE models

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Square Air Coil Inductors



Irms Derating



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
<hr/>								
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
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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.

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"



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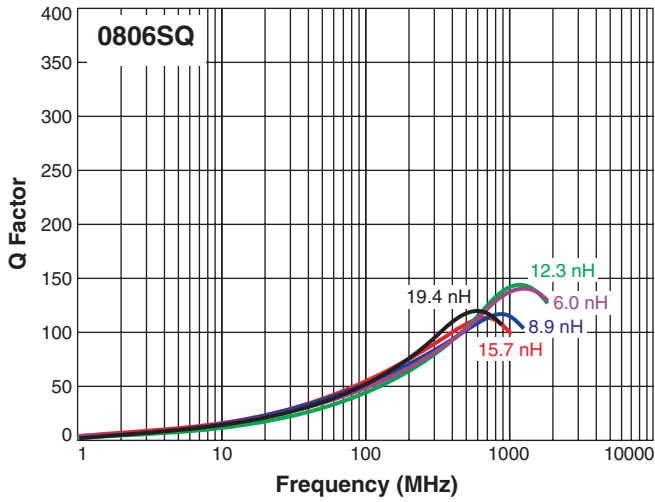
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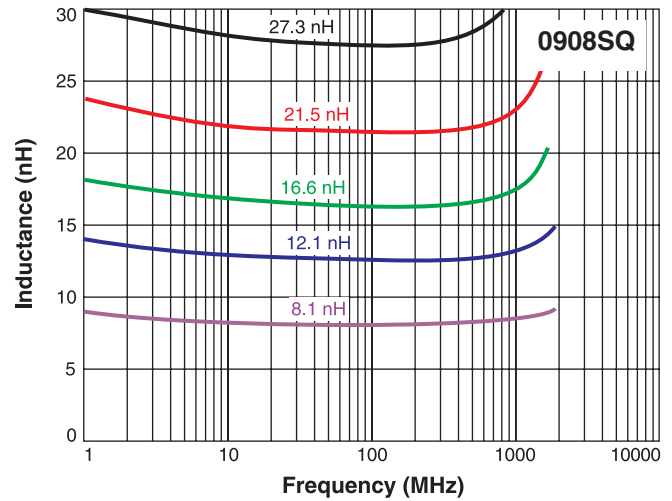
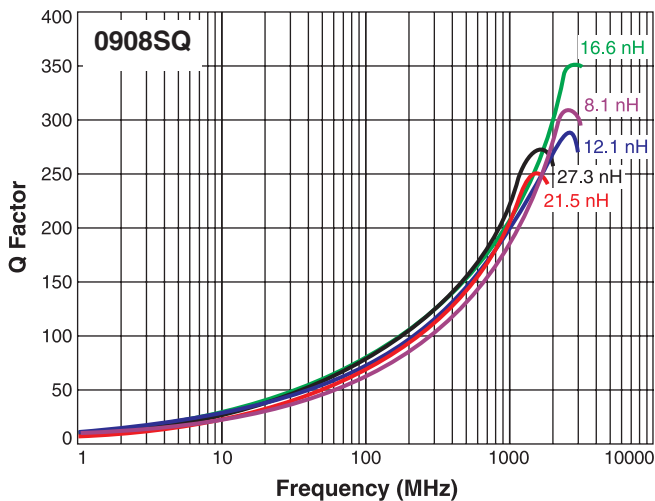
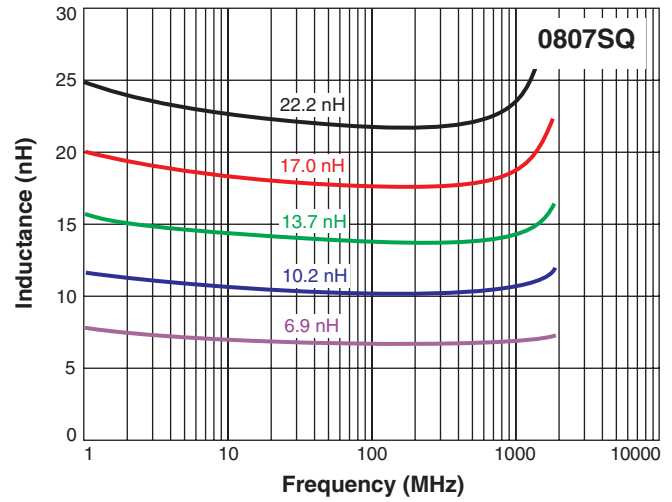
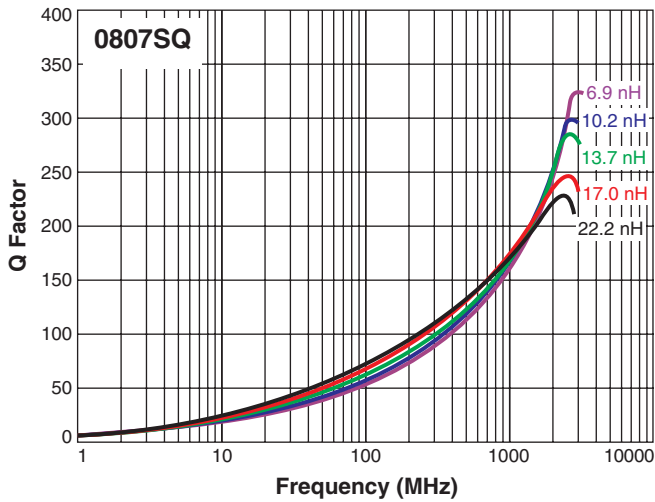
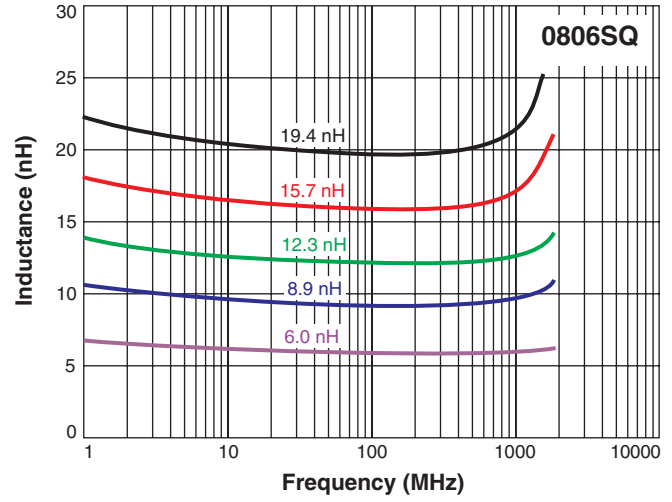


Square Air Coil Inductors

Typical Q vs Frequency



Typical L vs Frequency



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Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
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