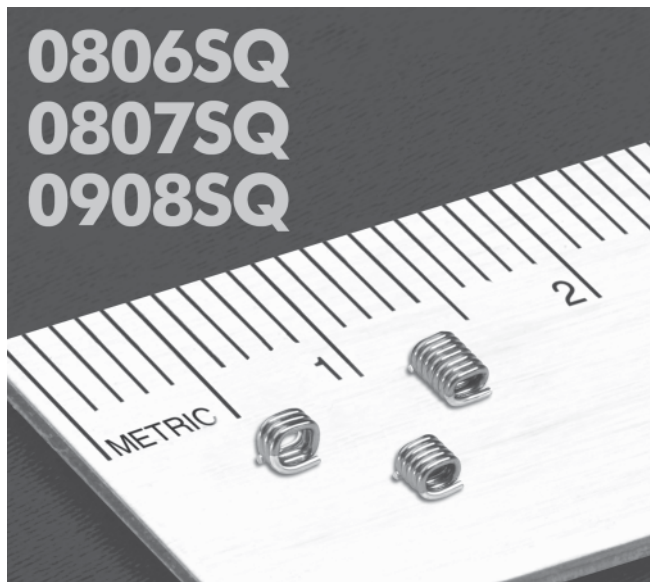


**NEW!**

# Square Air Core Inductors



- Excellent Q factors – up to 130
- Current handling as high as 4.4 Amps!
- 15 inductance values from 6.0 to 27 nH

**Designer's Kit C424** contains 10 each of all values

**Terminations** RoHS compliant tin-silver over copper

**Ambient temperature** –40°C to +125°C with Irms current, +125°C to +145°C with derated current

**Storage temperature** Component: –55°C to +125°C. Packaging: –55°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** Only pure water or alcohol recommended

Part number <sup>1</sup>	Inductance <sup>2</sup> ±5% (nH)	Q <sup>3</sup> typ	SRF typ <sup>4</sup> (GHz)	DCR max (mOhm)	Irms <sup>5</sup> (A)
0806SQ-6N0JL_	6.0	64	5.2	6.0	2.9
0806SQ-8N9JL_	8.9	90	4.3	7.0	2.9
0806SQ-12NJL_	12.3	90	4.8	8.0	2.9
0806SQ-16NJL_	15.7	90	4.4	9.0	2.9
0806SQ-19NJL_	19.4	90	4.0	10.0	2.9
0807SQ-6N9JL_	6.9	100	4.6	6.0	2.7
0807SQ-10NJL_	10.2	100	4.0	7.0	2.7
0807SQ-14NJL_	13.7	100	4.3	8.0	2.7
0807SQ-17NJL_	17.0	100	4.0	9.0	2.7
0807SQ-22NJL_	22.0	100	3.5	10.0	2.7
0908SQ-8N1JL_	8.1	130	5.2	6.0	4.4
0908SQ-12NJL_	12.1	130	4.3	7.0	4.4
0908SQ-17NJL_	16.6	130	3.4	8.0	4.4
0908SQ-22NJL_	21.5	130	3.7	9.0	4.4
0908SQ-27NJL_	27.3	130	3.2	10.0	4.4

1. When ordering, please specify **termination** and **packaging** code:

0908SQ-27NJL C

**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 with an Agilent/HP 16193A test fixture.

3. Q measured at 400 MHz using an Agilent/HP 4291A impedance analyzer.

4. SRF measured using an Agilent/HP 8753 network analyzer and a Coilcraft SMD-D test fixture.

5. Current that causes a 20°C temperature rise from 25°C ambient.

6. Electrical specifications at 25°C.

See Qualification Standards section for environmental and test data.

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

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Specifications subject to change without notice.

Please check our website for latest information.

Document 617-1 Revised 05/28/08

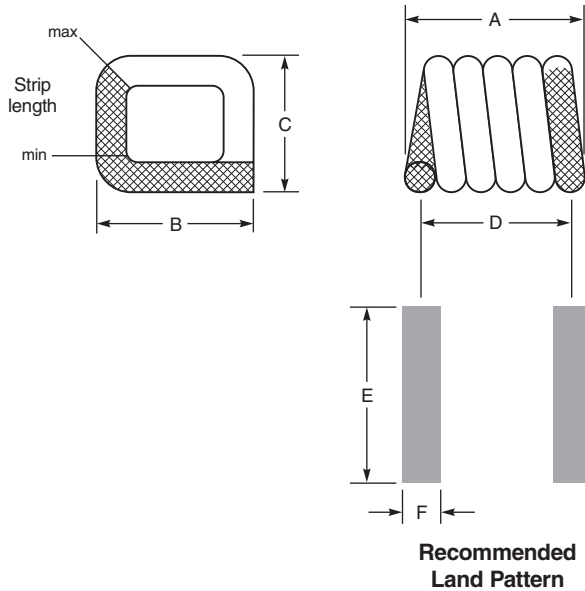
1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>

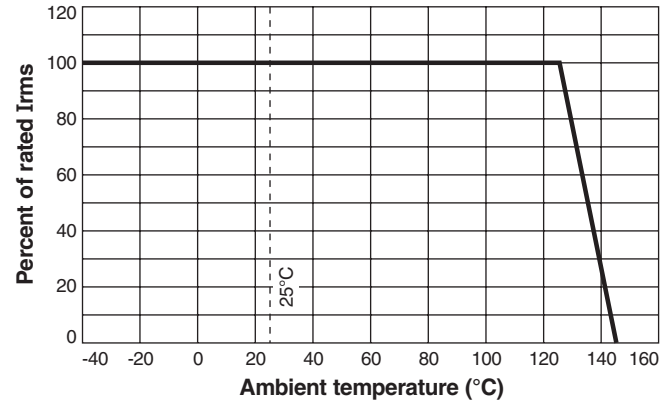


# NEW!

## Square Air Coil Inductors



### Irms Derating



**Packaging** 2000/7" reel; 7500/13" reel  
 Pastic tape: 12 mm wide, 0.254 mm thick, 4 mm pocket spacing

Part number	A	B	C	D	E	F	Weight (mg)	Tapepocket depth (mm)
0806SQ-6N0	1,295 ±0,102	1,829 ±0,254	1,397 ±0,102	0,99	2,6	0,51	8,5	1,42
0806SQ-8N9	1,626 ±0,152	1,829 ±0,254	1,397 ±0,102	1,27	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-14N	1,930 ±0,152	1,829 ±0,254	1,524 ±0,254	1,57	2,6	0,51	14,0	1,60
0807SQ-17N	2,286 ±0,152	1,829 ±0,254	1,524 ±0,254	1,93	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
<hr/>								
0908SQ-8N1	1,473 ±0,152	2,134 ±0,152	1,829 ±0,152	1,12	2,8	0,64	12,8	2,01
0908SQ-12N	1,854 ±0,152	2,134 ±0,152	1,829 ±0,152	1,45	2,8	0,64	16,9	1,96
0908SQ-17N	2,210 ±0,152	2,134 ±0,152	1,829 ±0,152	1,83	2,8	0,64	21,1	2,01
0908SQ-22N	2,565 ±0,152	2,134 ±0,152	1,829 ±0,152	2,18	2,8	0,64	24,7	1,98
0908SQ-27N	2,972 ±0,152	2,134 ±0,152	1,829 ±0,152	2,57	2,8	0,64	28,7	1,01

All dimensions are in mm.

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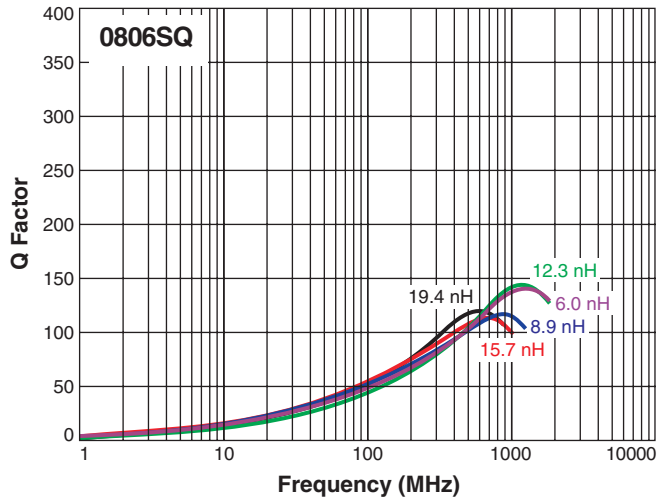
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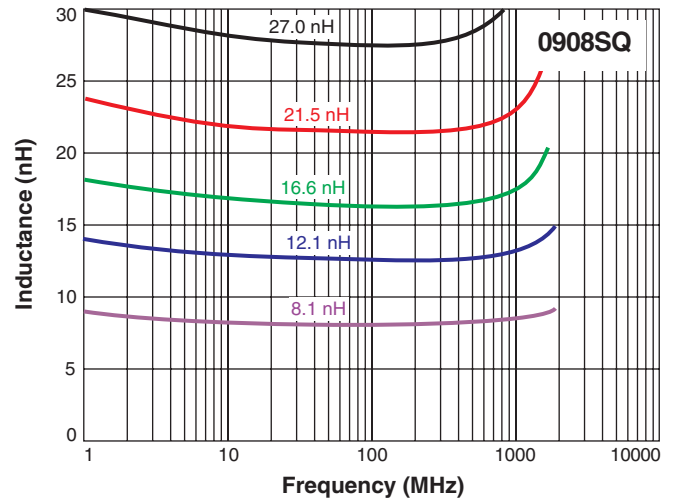
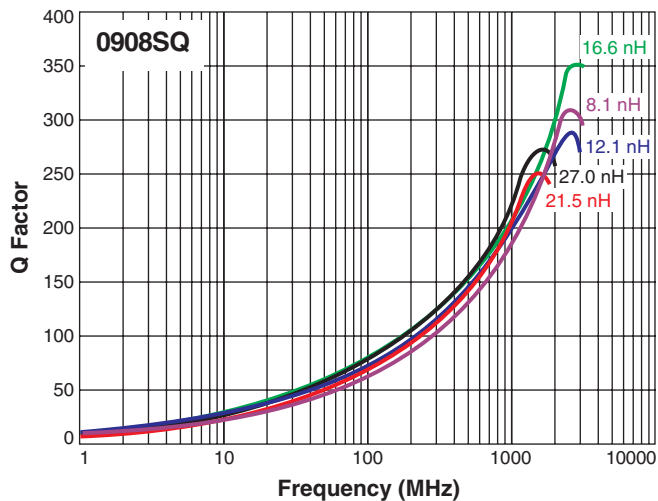
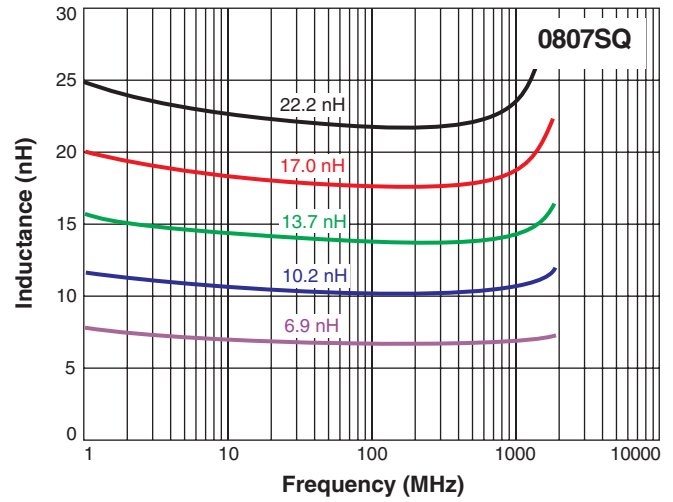
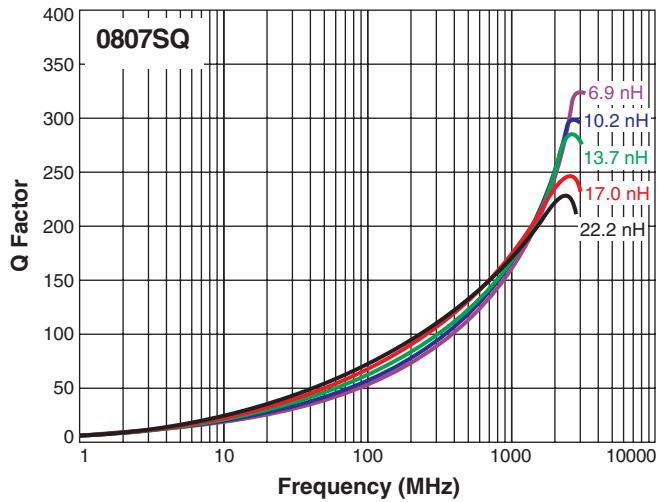
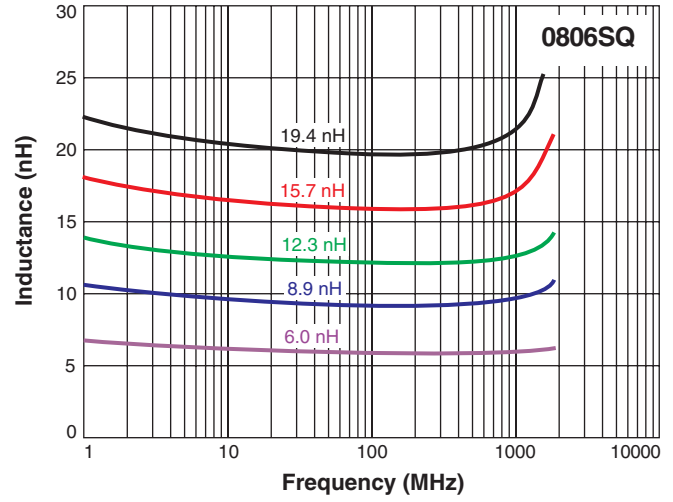
**NEW!**

# Square Air Coil Inductors

## Q vs Frequency



## L vs Frequency



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