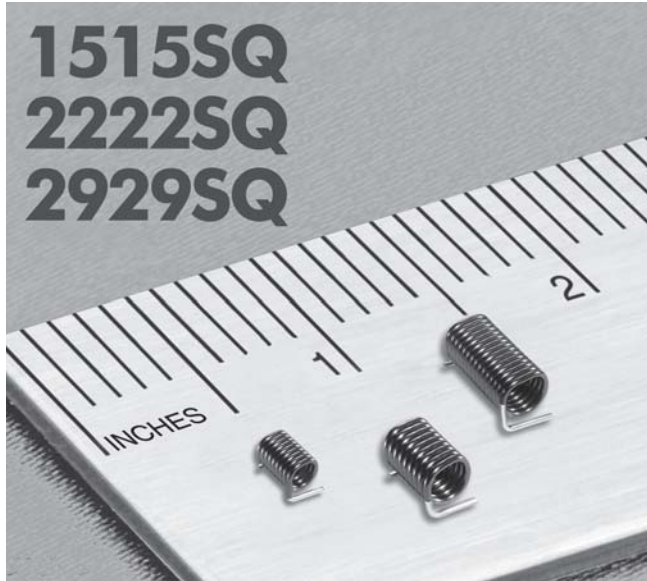


**NEW!**

Square Air Core Inductors

1515SQ
2222SQ
2929SQ



- Excellent Q factors – up to 230 at 400 MHz!
- Current handling as high as 5.7 Amps
- Inductance values from 47 to 500 nH
- Flat top and bottom for reliable pick and place and mechanical stability

Designer's Kit C438 contains 10 each of all 5% parts

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 +145°C. 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 Only pure water or alcohol recommended

Part number ¹	Inductance ² (nH)	Percent tolerance ³	Q ⁴ typ	Test frequency (MHz)	SRF min ⁵ (GHz)	DCR max (mOhm)	I _{rms} ⁶ (A)
1515SQ-47N_E_	47	5,2	230	400	1.87	6.35	4.9
1515SQ-68N_E_	68	5,2	230	400	2.13	8.60	5.5
1515SQ-82N_E_	82	5,2	230	400	1.79	9.40	5.6
2222SQ-90N_E_	90	5,2	140	50	1.15	5.50	5.0
2222SQ-161_E_	160	5,2	140	50	1.00	8.25	5.7
2222SQ-301_E_	300	5,2	150	50	0.720	13.8	3.7
2929SQ-501_E_	500	5,2	150	50	0.485	16.5	4.3

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

1515SQ-82N **J** **E** **C**

Tolerance: **G** = 2% **J** = 5%

(Table shows stock tolerances in bold.)

Termination: **E** = 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 specified test frequency, 0.1 V_{rms}, 0 A using an Agilent/HP 4287A LCR meter with an Agilent/HP 16193A test fixture.

3. Tolerances in bold are stocked for immediate shipment.

4. Q measured at specified test frequency, using an Agilent/HP 4291A impedance analyzer.

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.

Coilcraft®

Specifications subject to change without notice.

Please check our website for latest information.

Document 720-1 Revised 07/16/10

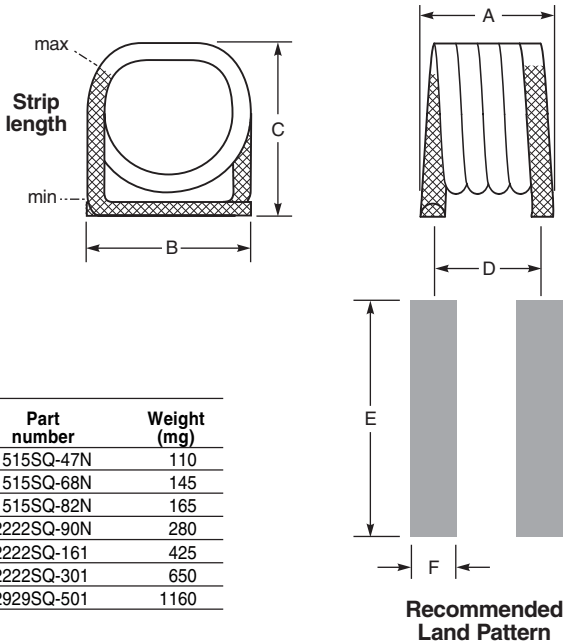
1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

E-mail info@coilcraft.com Web <http://www.coilcraft.com>



NEW!

Square Air Core Inductors – 1515SQ, 2222SQ, 2929SQ



Part number	Weight (mg)
1515SQ-47N	110
1515SQ-68N	145
1515SQ-82N	165
2222SQ-90N	280
2222SQ-161	425
2222SQ-301	650
2929SQ-501	1160

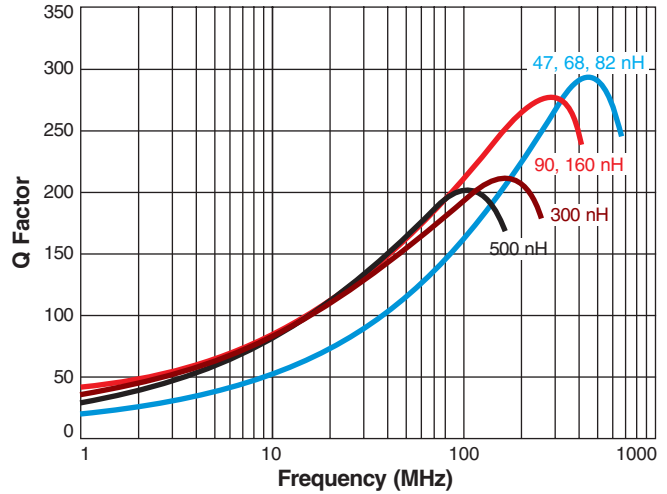
Part number	A	B	C	D	E	F
1515SQ-47N	0.160±0.010 4.06±0.254	0.140±0.007 3.56±0.178	0.147±0.007 3.73±0.178	0.140 3.56	0.175 4.45	0.070 1.78
1515SQ-68N	0.210±0.010 5.33±0.254	0.140±0.007 3.56±0.178	0.147±0.007 3.73±0.178	0.190 4.83	0.175 4.45	0.070 1.78
1515SQ-82N	0.230±0.010 5.84±0.254	0.140±0.007 3.56±0.178	0.147±0.007 3.73±0.178	0.210 5.33	0.175 4.45	0.070 1.78
2222SQ-90N	0.205±0.015 5.21±0.381	0.215±0.010 5.46±0.254	0.224±0.010 5.69±0.254	0.175 4.45	0.255 6.48	0.085 2.16
2222SQ-161	0.290±0.015 7.37±0.381	0.225±0.010 5.72±0.254	0.224±0.010 5.69±0.254	0.260 6.60	0.265 6.73	0.085 2.16
2222SQ-301	0.470±0.015 11.94±0.381	0.225±0.010 5.72±0.254	0.224±0.010 5.69±0.254	0.440 11.18	0.265 6.73	0.085 2.16
2929SQ-501	0.550±0.015 14.10±0.381	0.295±0.010 7.49±0.254	0.285±0.010 7.24±0.254	0.520 13.21	0.325 8.26	0.09 2.29

All dimensions are in $\frac{\text{inches}}{\text{mm}}$.

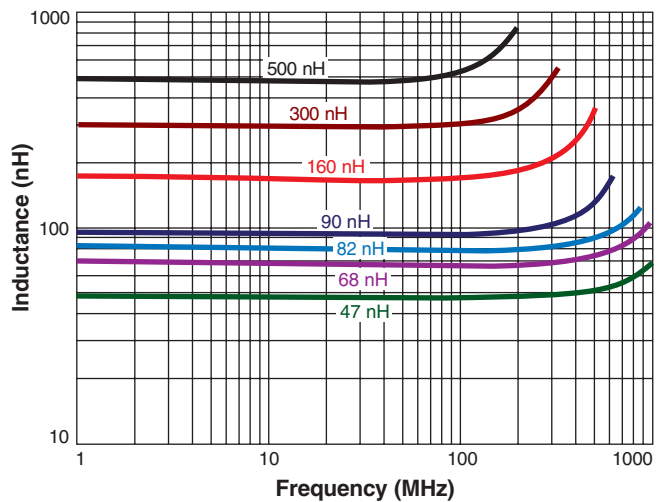
Packaging:

- 1515SQ-47N** 500/7" reel; 2000/13" reel Plastic tape: 12 mm wide, 0.26 mm thick, 8 mm pocket spacing, 4.06 mm pocket depth
- 1515SQ-68N** 500/7" reel; 2000/13" reel Plastic tape: 12 mm wide, 0.26 mm thick, 8 mm pocket spacing, 4.06 mm pocket depth
- 1515SQ-82N** 500/7" reel; 2000/13" reel Plastic tape: 12 mm wide, 0.26 mm thick, 8 mm pocket spacing, 4.06 mm pocket depth
- 2222SQ-90N** 250/7" reel; 750/13" reel Plastic tape: 16 mm wide, 0.32 mm thick, 12 mm pocket spacing, 5.97 mm pocket depth
- 2222SQ-161** 250/7" reel; 750/13" reel Plastic tape: 16 mm wide, 0.33 mm thick, 12 mm pocket spacing, 5.97 mm pocket depth
- 2222SQ-301** 250/7" reel; 750/13" reel Plastic tape: 24 mm wide, 0.33 mm thick, 12 mm pocket spacing, 5.97 mm pocket depth
- 2929SQ-501** 150/7" reel; 600/13" reel Plastic tape: 24 mm wide, 0.33 mm thick, 12 mm pocket spacing, 7.49 mm pocket depth

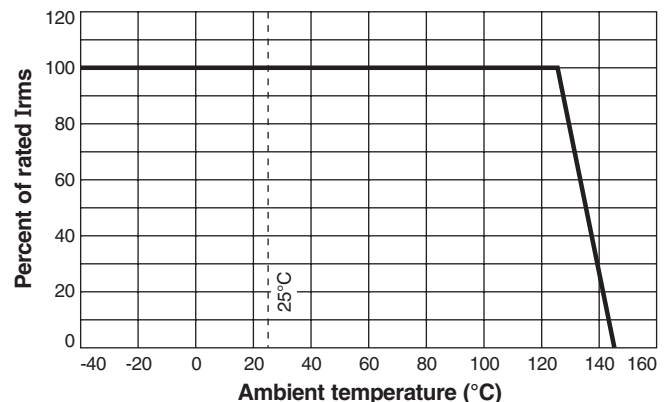
Typical Q vs Frequency



Typical L vs Frequency



Irms Derating



Specifications subject to change without notice. Please check our website for latest information.

Document 720-2 Revised 07/16/10

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