RoHS/ REACH COMPLIANT

AEC Q200 +85°C

Low Profile Mini Spring™ Inductors

- Only 2 mm tall
- High Q over a wide range of frequencies
- Low DCR and excellent current handling capability

Designer's Kit C394 contains 10 samples each 5% part
Designer's Kit C394-2 contains 10 samples each 2% part
Terminations RoHS compliant tin-silver over copper. Other terminations available at additional cost.
Weight 48 – 130 g
Ambient temperature –40°C to +125°C with Irms current
Maximum part temperature +140°C (ambient + temp rise).
Storage temperature Component: –40°C to +140°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)
Failures in Time (FIT) / Mean Time Between Failures (MTBF) 0.22 per billion hours / 4.545E+09 hours, calculated per Telcordia SR-332
Packaging 1000/7″ reel; 3500/13″ reel Plastic tape: 2 mm wide, 0.23 mm thick, 8 mm pocket spacing, 2.2 mm pocket depth
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

Part number[1]	Turns	Inductance[2] (nH)	Percent tol[3]	Q[2] min	SRF min[4] (GHz)	DCR max[5] (mOhm)	Irms[6] (A)	Wt (mg)
1508-5N5_L_	3	5.5	**5,2**	115	5.0	2.6	4.0	52
1508-9N0_L_	4	9.0	**5,2**	120	4.0	3.4	4.0	65
1508-13N_L_	5	13.0	**5,2**	100	3.0	3.9	4.0	78
2508-16N_L_	7	16.0	**5,2**	110	3.0	5.2	4.0	110
2508-18N_L_	8	18.0	**5,2**	110	2.9	6.0	4.0	118
2508-23N_L_	9	23.0	**5,2**	110	2.6	6.8	4.0	133
2508-27N_L_	10	27.0	**5,2**	110	2.3	7.9	4.0	147

1. Specify **tolerance**, **termination** and **packaging** codes:

2508-27NJLC

Tolerance: **G** = 2% **J** = 5%
Termination: **L** = RoHS compliant tin-silver (96.5/3.5) over copper. **Special order: T** = RoHS tin-silver-copper (95.5/4/0.5) or **S** = non-RoHS tin-lead (63/37).
Packaging: **C** = 7″ machine-ready reel. EIA-481 embossed plastic tape (1000 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.
D = 13″ machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (3500 parts per full reel).

2. L and Q measured at 250 MHz, 0.1 Vrms, 0 A using an Agilent/HP 4291A impedance analyzer with an Agilent/HP 16193A test fixture.
3. Tolerances in bold are stocked for immediate shipment.
4. SRF measured using an Agilent/HP 8753 network analyzer and a Coilcraft SMD-D test fixture.
5. DCR measured using a micro-ohmmeter.
6. Current that causes a 15°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.

S-Parameter files
ON OUR WEB SITE

SPICE models
ON OUR WEB SITE

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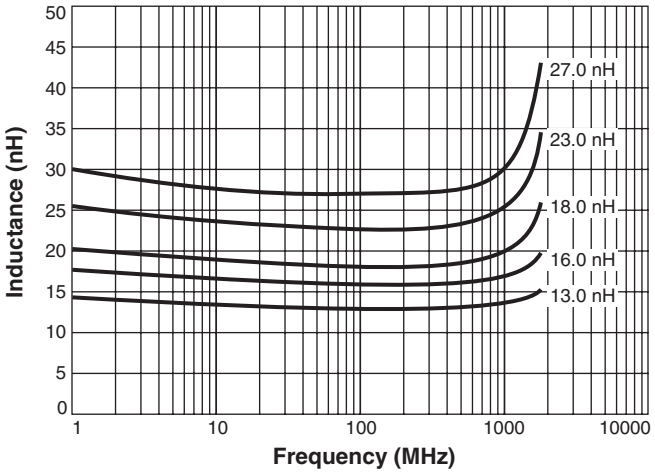
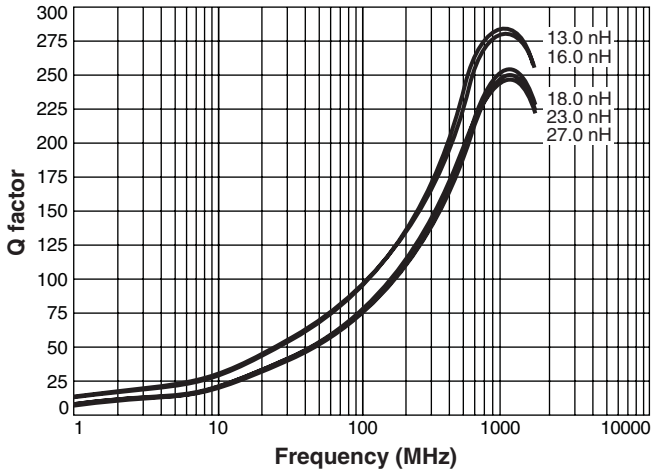
Document 404-1 Revised 05/13/21

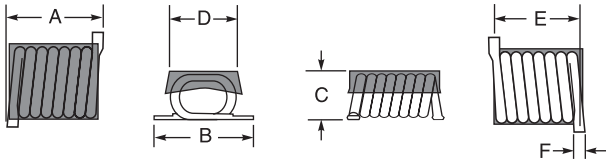
Low Profile Mini Spring™ Inductors

Typical L vs Frequency



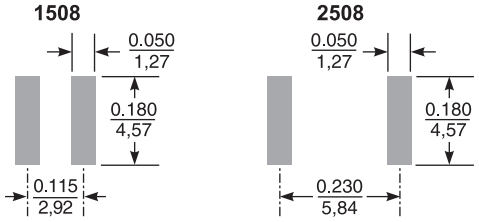
Typical Q vs Frequency



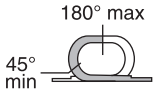


Size	A max	B max	C max	D	E	F max
1508	0.155 3,94	0.165 4,19	0.079 2,01	0.135 3,43	0.115 ±0.015 2,92 ±0,38	0.029 0,74
2508	0.270 6,86	0.165 4,19	0.079 2,01	0.135 3,43	0.230 ±0.015 5,84 ±0,38	0.029 0,74

Recommended Land Patterns



Strip Length



Dimensions are in inches / mm

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Document 404-2 Revised 05/13/21

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Coilcraft:

1508-9N0JLC 2508-16NJLC 1508-5N5GLB 1508-5N5GLC 2508-27NJLC 2508-23NGLC 2508-27NGLB 2508-16NGLB 2508-18NJLB 2508-23NJLB 1508-13NGLC 2508-27NJLB 1508-13NJLC 2508-23NGLB 1508-5N5JLC 1508-13NGLB 1508-9N0JLB 1508-9N0GLC 1508-13NJLB 2508-27NGLC 2508-16NJLB 2508-18NGLB 1508-9N0GLB 2508-16NGLC 2508-23NJLC 2508-18NGLC 1508-5N5JLB 2508-18NJLC