



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, +125°C to +140°C with derated current

Storage temperature Component: –40°C to +140°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)

Failures in Time (FIT) / Mean Time Between Failures (MTBF)

One per billion hours / one billion 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 Only pure water or alcohol recommended

Part number ¹	Turns	L ² (nH)	% 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).

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 (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.

7. Electrical specifications at 25°C.

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

S-Parameter files

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SPICE models

ON OUR WEB SITE



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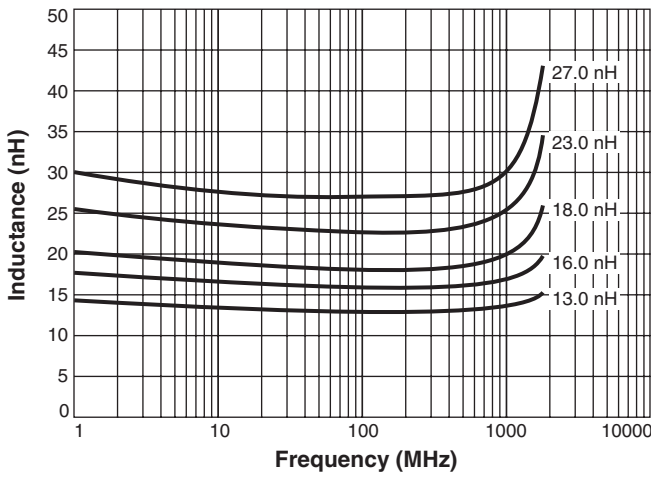
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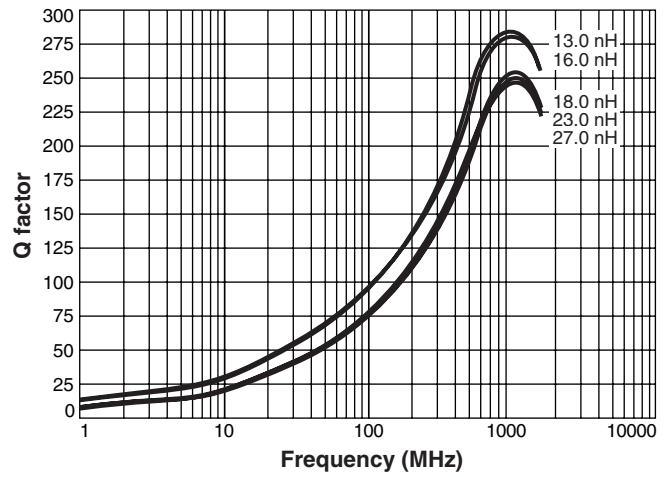


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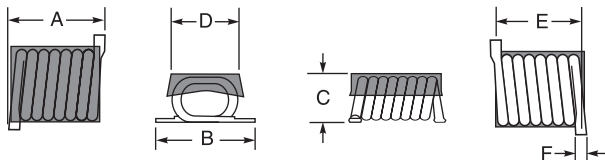
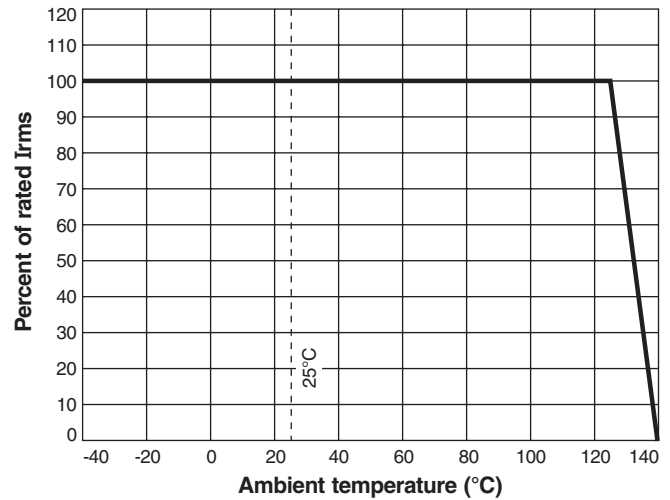
Typical L vs Frequency



Typical Q vs Frequency

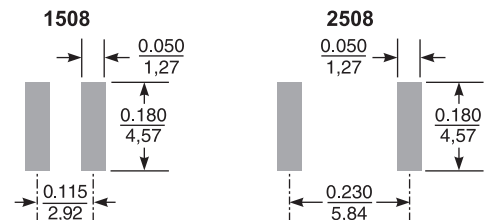


Irms Derating

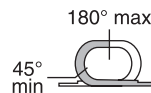


Size	A max	B max	C max	D	E	F max
1508	0.155 3,94	0.165 4,19	0.079 2,01	0.135 3,43	0.115 ±0.015 2,92 ±0,38	0.029 0,74
2508	0.270 6,86	0.165 4,19	0.079 2,01	0.135 3,43	0.230 ±0.015 5,84 ±0,38	0.029 0,74

Recommended Land Patterns



Strip Length



Dimensions are in $\frac{\text{inches}}{\text{mm}}$



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