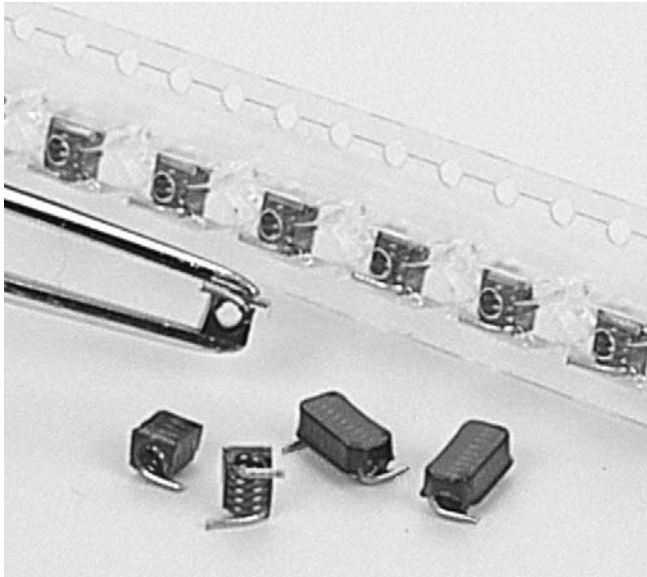




Mini Spring™ Air Core Inductors



- Small air core inductors feature high Q and tight tolerances
- Acrylic jacket provides a flat top for pick and place
- Solder coated leads ensure reliable soldering

Designer's Kit C302 contains 12 each of all 5% values.
Kit C302-2 contains 12 each of all 2% values.

Terminations RoHS compliant tin-silver over copper. Other terminations available at additional cost.

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)

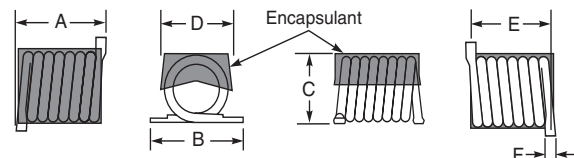
Failures in Time (FIT) / Mean Time Between Failures (MTBF)
 One per billion hours / one billion hours, calculated per Telcordia SR-332

Packaging A0xT: 700/7" reel; 2500/13" reel Plastic tape: 12 mm wide, 0.32 mm thick, 8 mm pocket spacing, 3.3 mm pocket depth

BxxT: 500/7" reel; 2200/13" reel Plastic tape: 16 mm wide, 0.28 mm thick, 8 mm pocket spacing, 3.4 mm pocket depth

PCB washing Only pure water or alcohol recommended

Part number ¹	Turns	L ² (nH)	Percent tol ³	Q ⁴ min	SRF min ⁵ (GHz)	DCR max ⁶ (mOhm)	Irms ⁷ (A)	Weight (mg)
A01TKL_	1	2.5	10	145	12.5	1.1	4	31
A02T_L_	2	5.0	5,2	140	6.5	1.8	4	42
A03T_L_	3	8.0	5,2	140	5.0	2.6	4	52
A04T_L_	4	12.5	5,2	137	3.3	3.4	4	65
A05T_L_	5	18.5	5,2	132	2.5	3.9	4	78
B06T_L_	6	17.5	5,2	100	2.2	4.5	4	100
B07T_L_	7	22.0	5,2	102	2.1	5.2	4	110
B08T_L_	8	28.0	5,2	105	1.8	6.0	4	118
B09T_L_	9	35.5	5,2	112	1.5	6.8	4	133
B10T_L_	10	43.0	5,2	106	1.2	7.9	4	147



Size	A max	B max	C max	D	E	F max
A	0.155 3,94	0.175 4,45	0.124 3,15	0.125 ±0.010 3,18 ±0,25	0.115 ±0.010 2,92 ±0,25	0.029 0,74
B	0.270 6,86	0.175 4,45	0.124 3,15	0.125 ±0.010 3,18 ±0,25	0.230 ±0.015 5,84 ±0,38	0.029 0,74

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

A02T G L C

Tolerance: G = 2% J = 5% K = 10% (Table shows stock tolerances in bold.)

Termination: L = RoHS compliant tin-silver (96.5/3.5) over copper.

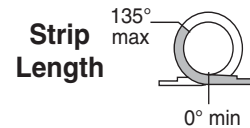
Special order: T = RoHS tin-silver-copper (95.5/4/0.5) or S = non-RoHS tin-lead (63/37).

Packaging: C = 7" machine-ready reel. EIA-481 embossed plastic tape, 700 (AxxT) or 500 (BxxT) parts per full reel.

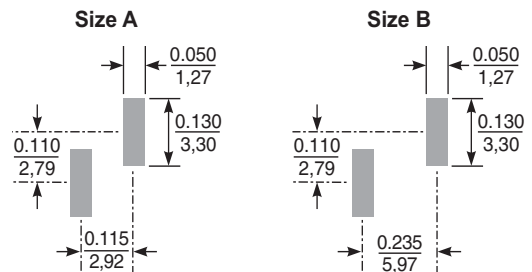
B = Less than full reel. In tape, but not machine-ready. To have a leader and trailer added (\$25 charge), use code letter C instead.

D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked, 2500 (AxxT) or 2200 (BxxT) parts per full reel.

- Inductance measured with an Agilent/HP 4286, a Coilcraft SMD-A and correlation.
 - Tolerances in bold are stocked for immediate shipment.
 - Q measured at 150 MHz using an Agilent/HP 4291A with an Agilent/HP 16193A test fixture.
 - SRF tested on an Agilent/HP 8720D and a Coilcraft SMD-D test fixture.
 - DCR tested on the Cambridge Technology Model 510 Micro-ohmmeter.
 - Current that causes a 15°C temperature rise from 25°C ambient.
 - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



Recommended Land Patterns



Dimensions are in inches/mm



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

Document 107-1 Revised 10/29/08

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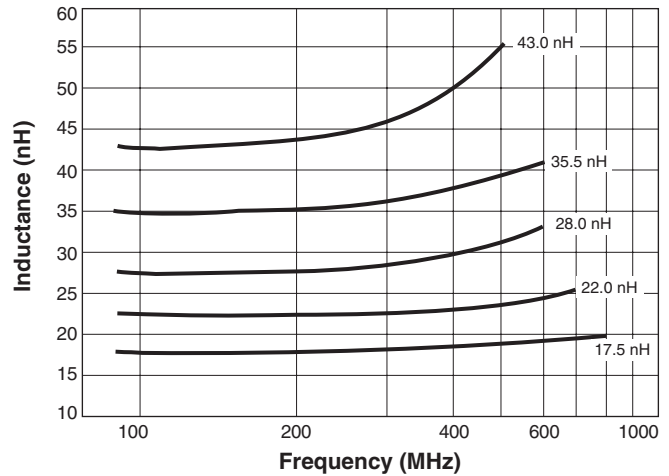
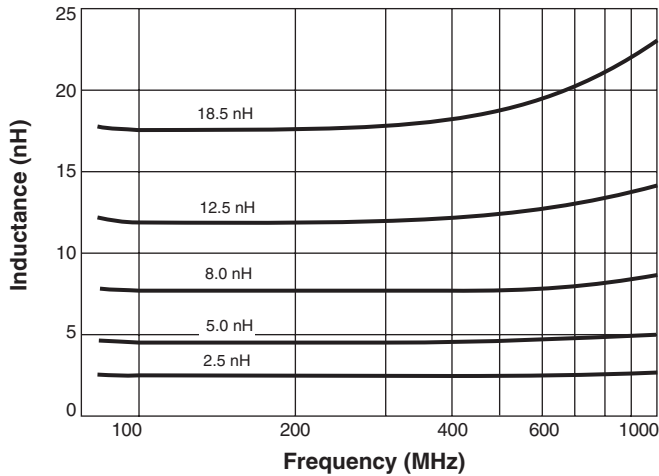
E-mail info@coilcraft.com Web http://www.coilcraft.com



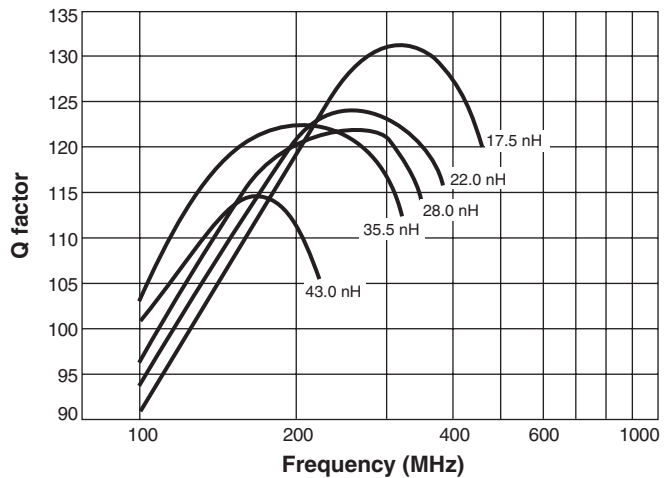
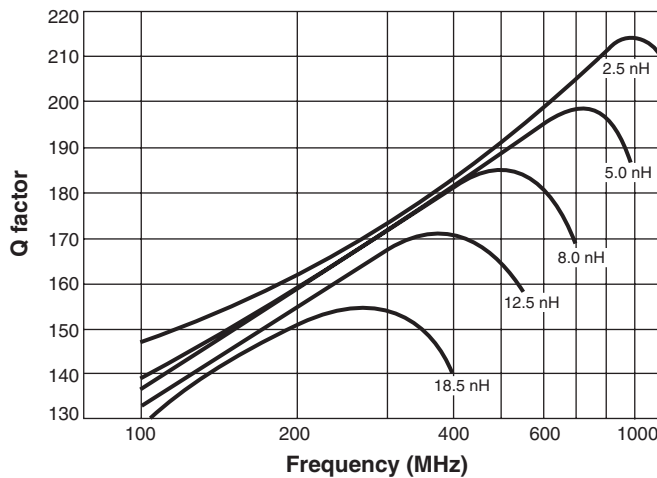
Mini Spring™ Air Core Inductors

S-Parameter files
ON OUR WEB SITE OR CD
SPICE models
ON OUR WEB SITE OR CD

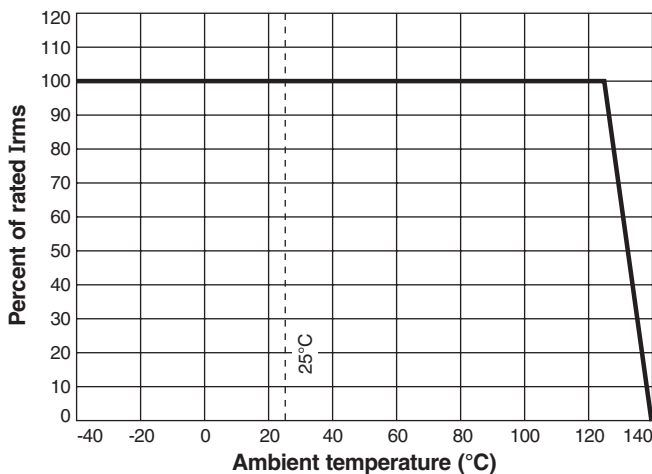
Typical L vs Frequency



Typical Q vs Frequency



Typical Irms Derating



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Please check our website for latest information.

Document 107-2 Revised 10/29/08

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