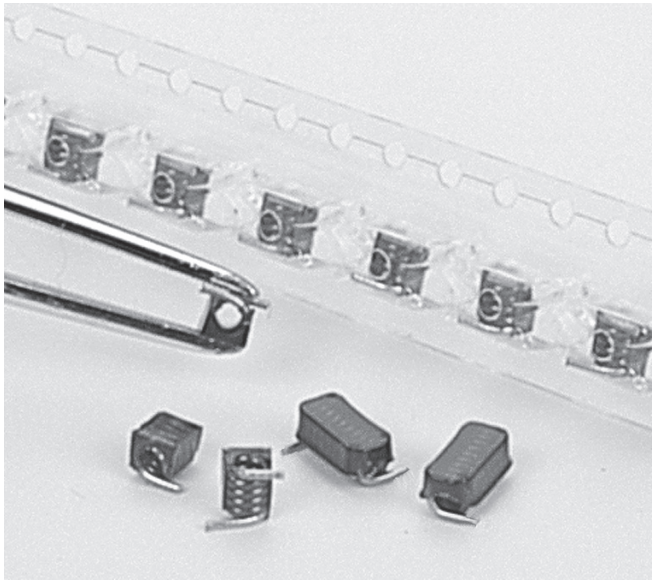
Mini Spring™ Air Core Inductors



- 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

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

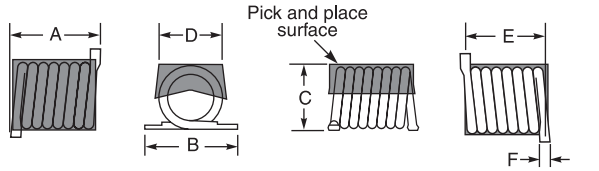
Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

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**,1	140	6.5	1.8	4	42
A03T_L_	3	8.0	**5,2**,1	140	5.0	2.6	4	52
A04T_L_	4	12.5	**5,2**,1	137	3.3	3.4	4	65
A05T_L_	5	18.5	**5,2**,1	132	2.5	3.9	4	78
B06T_L_	6	17.5	**5,2**,1	100	2.2	4.5	4	100
B07T_L_	7	22.0	**5,2**,1	102	2.1	5.2	4	110
B08T_L_	8	28.0	**5,2**,1	105	1.8	6.0	4	118
B09T_L_	9	35.5	**5,2**,1	112	1.5	6.8	4	133
B10T_L_	10	43.0	**5,2**,1	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	0.110 ±0.010 2,79 ±0,25	0.115 ±0.010 2,92 ±0,25	0.029 0,74	inch mm
B	0.270 6,86				0.230 ±0.015 5,84 ±0,38		

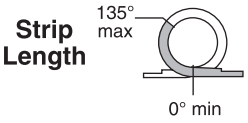
1. When ordering, please specify **tolerance**, **termination** and **packaging** codes:

A02TGLC

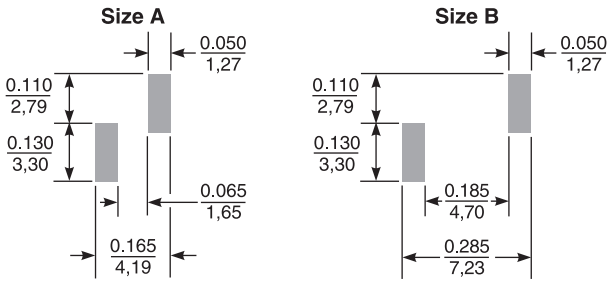
Tolerance: **F** = 1% **G** = 2% **J** = 5% **K** = 10% (Table shows stock tolerances in bold.)
Termination: **L** = RoHS compliant tin-silver (96.5/3.5) over copper. Special order: **T** = RoHS tin-silver-copper (95.5/4/0.5) or **S** = non-RoHS tin-lead (63/37).
Packaging: **C** = 7″ machine-ready reel. 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.

2. Inductance measured at 150 MHz with an Agilent/HP 4286, a Coilcraft SMD-A and correlation.
3. Tolerances in bold are stocked for immediate shipment.
4. Q measured at 150 MHz using an Agilent/HP 4291A with an Agilent/HP 16193A test fixture.
5. SRF tested on an Agilent/HP 8720D and a Coilcraft SMD-D test fixture.
6. DCR tested on the Cambridge Technology Model 510 Micro-ohmmeter.
7. Current that causes a 15°C temperature rise from 25°C ambient.
8. Electrical specifications at 25°C.

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



Recommended Land Patterns



Dimensions are in inches / mm

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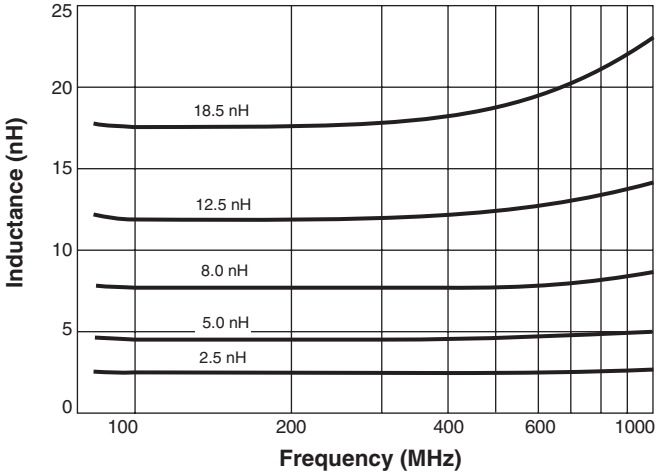
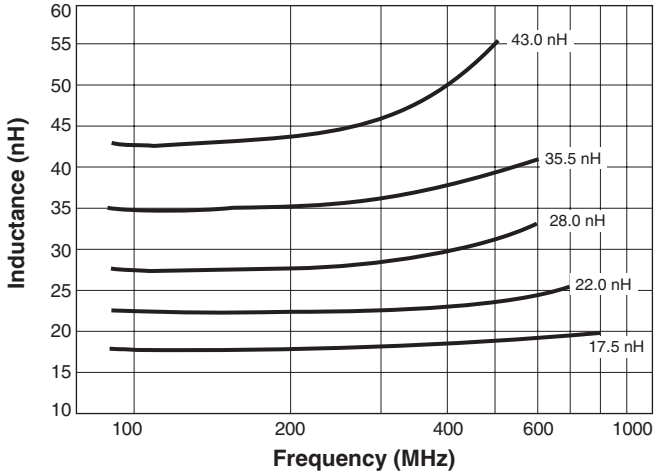
This product may not be used in medical or high risk applications without prior Coilcraft approval.
Specifications subject to change without notice.
Please check our web site for latest information.

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

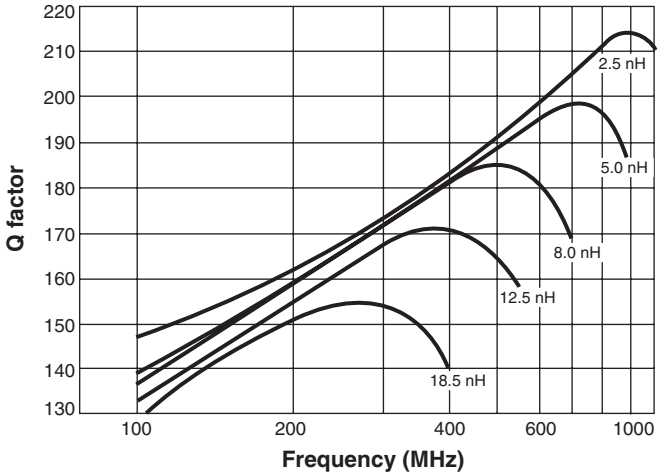
Mini Spring™ Air Core Inductors

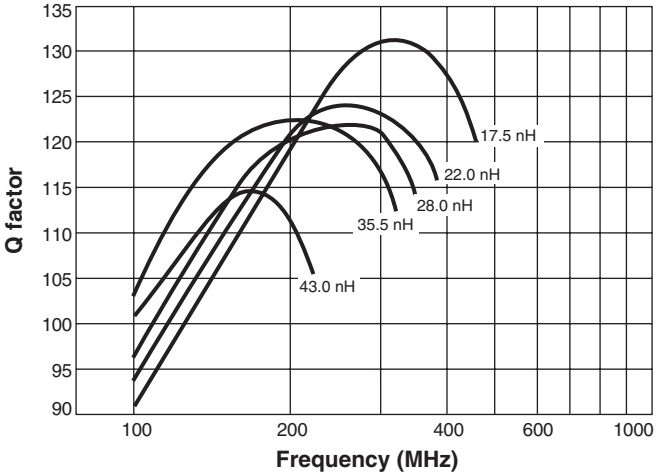
Typical L vs Frequency



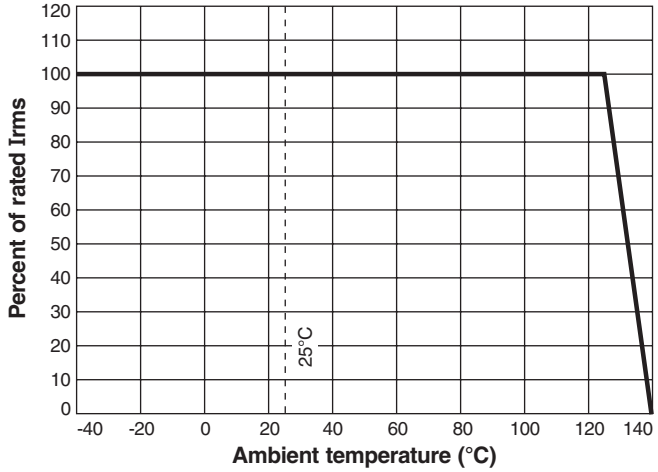


Typical Q vs Frequency





Typical Irms Derating



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