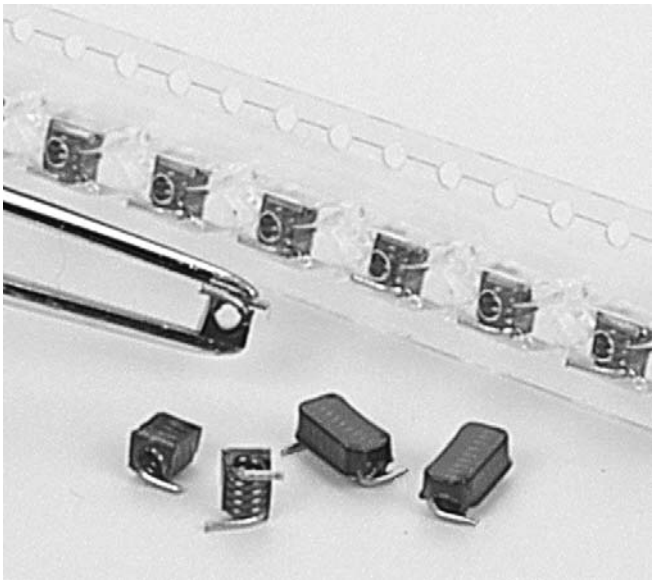
Mini Spring™ Air Core Inductors



- 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 contains12 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

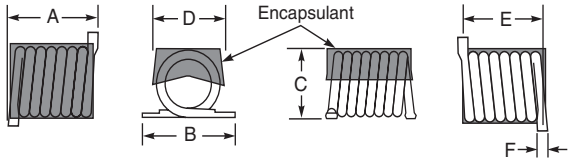
1. When ordering, please specify **tolerance**, **termination** and **packaging** codes:

A02TGLC

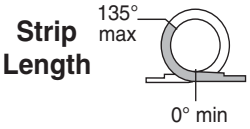
Tolerance: **G** = 2% **J** = 5% **K** = 10% (Table shows stock tolerances in bold.)
Termination: **L** = RoHS compliant tin-silver (96.5/3.5) over copper. Special order: **T** = RoHS tin-silver-copper (95.5/4/0.5) or **S** = non-RoHS tin-lead (63/37).
Packaging: **C** = 7″ machine-ready reel. EIA-481 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.

2. Inductance measured 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.

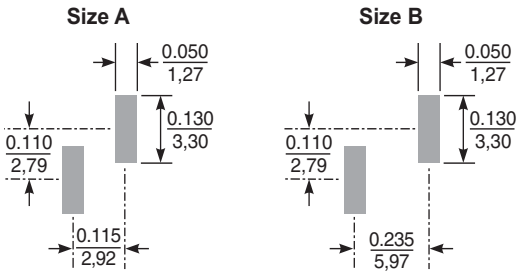
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



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



Recommended Land Patterns



Dimensions are in inches / mm

1102 Silver Lake Road Cary, Illinois 60013 **Phone** 847/639-6400 **Fax** 847/639-1469
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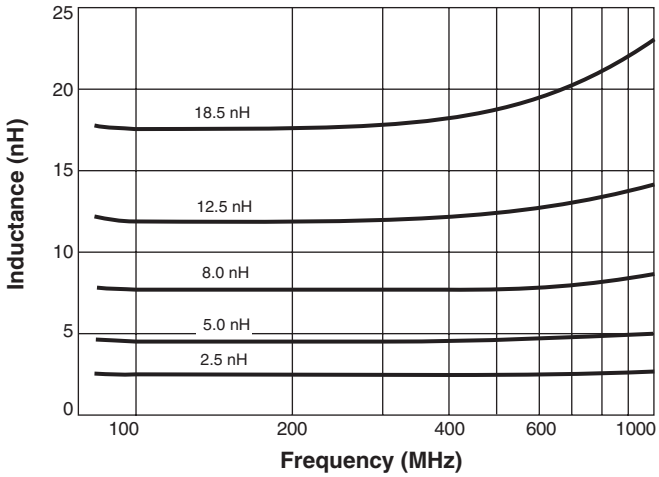
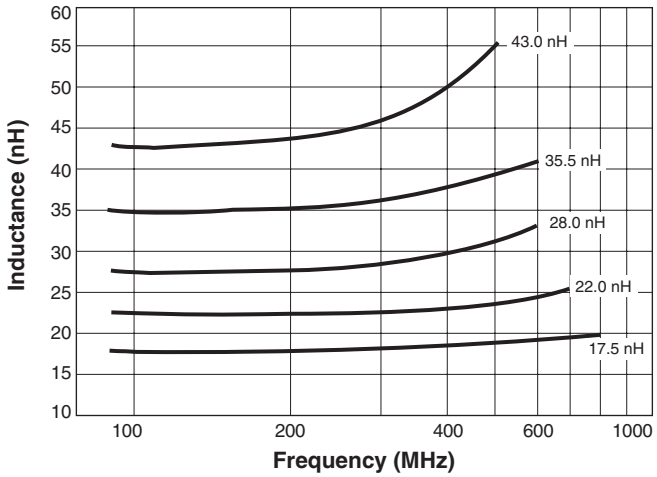
Mini Spring™ Air Core Inductors

S-Parameter files
ON OUR WEB SITE OR CD

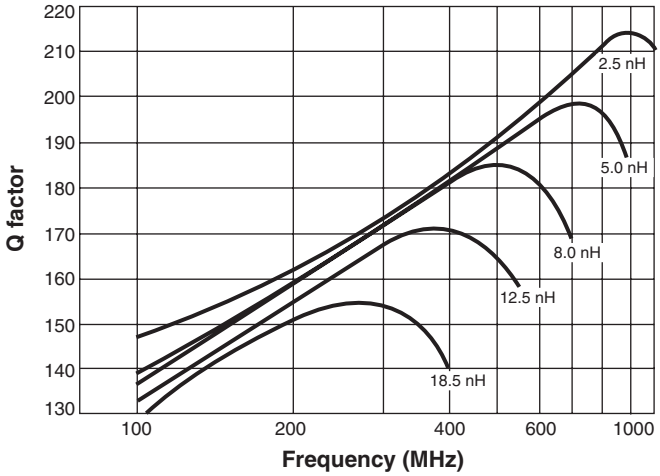
SPICE models
ON OUR WEB SITE OR CD

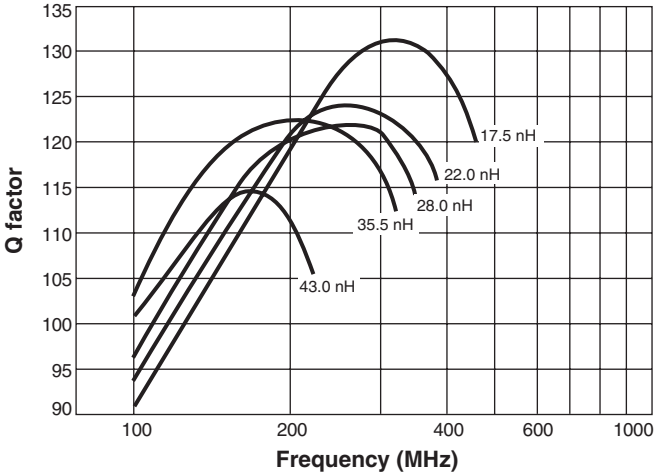
Typical L vs Frequency



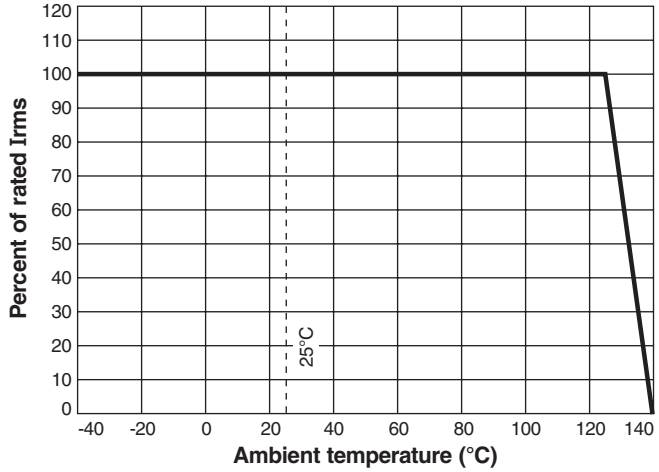


Typical Q vs Frequency





Typical Irms Derating



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