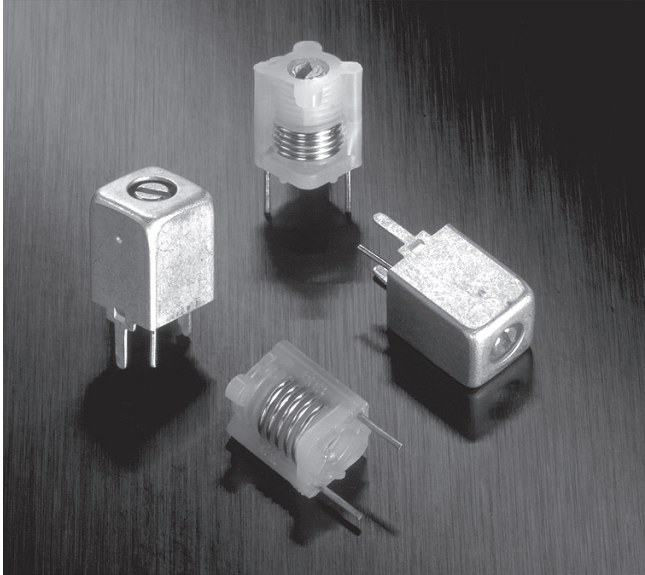




5 mm Tunable Inductor - 164, 165 Series



- These tunables offer the compactness of a 5 mm coil and the low drift reliability of an insert molded coil.
- Inductance values from 9 to over 280 nH
- Optional plated brass cans provide integral shielding
- Can be ordered without cores for use as fixed inductors

Designer's Kit M305 contains 2 each of all parts

Core material Aluminum, 0.187" (4.75 mm) long.

Terminations Leads: RoHS compliant tin-silver over copper. Other terminations available at additional cost. Shield can tabs: Tin-silver over nickel over brass

Weight

164 series unshielded: 0.16 – 0.31 g; with shield can: 0.45 – 0.60 g

165 series unshielded: 0.15 – 0.25 g; with shield can: 0.43 – 0.54 g

Ambient temperature –40°C to +85°C

Storage temperature Component: –40°C to +85°C.

Packaging: –40°C to +80°C

Resistance to soldering heat: Wave solder only. Recommended maximum board surface temperature of 168°C (334°F) for no more than three seconds. Pre-heating is recommended to minimize time over the solder nozzle.

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

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

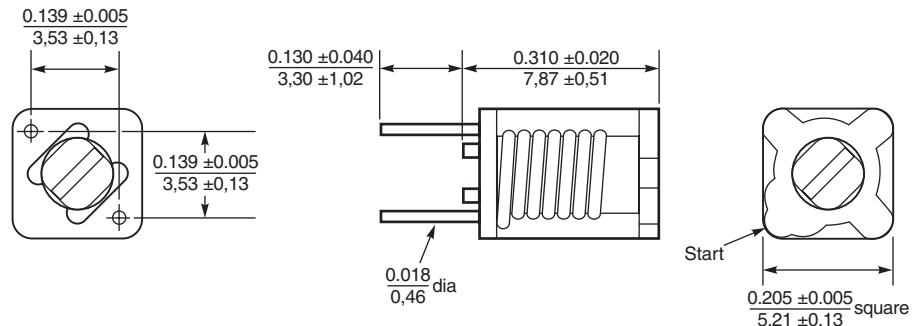
Two per billion hours / 1/2 billion hours, calculated per Telcordia SR-332

Packaging 50 parts per tube

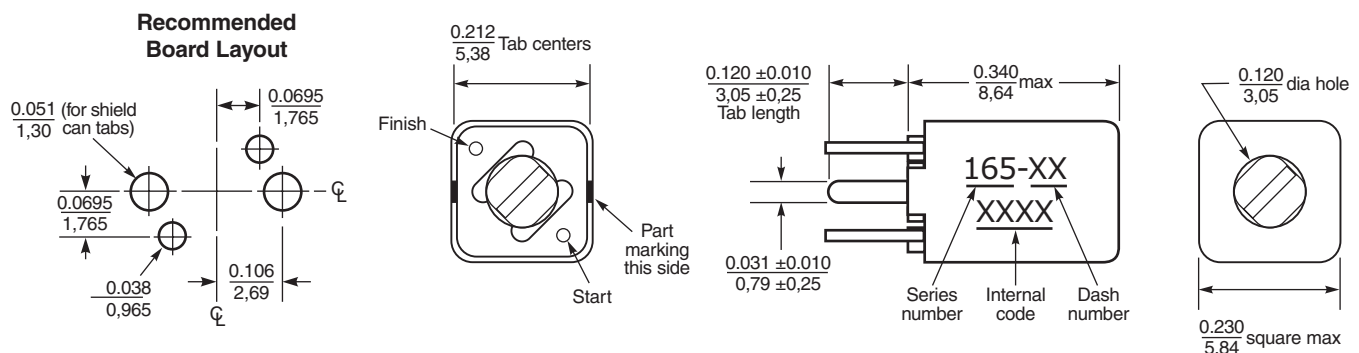
PCB washing Only pure water or alcohol recommended

TRITUNER 3 TOOLS IN 1
SEE INDEX
TUNING WRENCH

Unshielded Styles



Shielded Styles



Coilcraft

www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore +65-6484 8412 sales@coilcraft.com.sg

Document 110-1 Revised 08/31/09

© Coilcraft Inc. 2011

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.



5 mm Tunable Inductor–Unshielded

Part number ¹	Color	Turns	No core		at L max ³		at L min ⁴		Freq (MHz)	No core SRF min (MHz)	Irms ⁶ (A)
			L (nH) ²	Q min ⁵	L (nH) ²	Q min ⁵	L (nH) ²	Q min ⁵			
164-01A06L	Brown	1 1/2	19	145	19	145	16	112	150	2000	7.2
164-02A06L	Red	2 1/2	34	138	34	138	26	96	150	1260	5.1
164-03A06L	Orange	3 1/2	55	130	55	130	38	79	150	960	4.4
164-04A06L	Yellow	4 1/2	77	119	77	119	52	72	150	850	3.7
164-05A06L	Green	5 1/2	101	108	99	86	65	64	150	770	3.6
164-06A06L	Blue	6 1/2	128	107	126	75	83	60	100	730	3.3
164-07A06L	Violet	7 1/2	156	106	150	68	97	57	100	640	3.1
164-08A06L	Gray	8 1/2	183	100	178	62	112	53	100	570	2.9
164-09A06L	White	9 1/2	216	100	190	62	131	53	100	540	2.7
164-10A06L	Black	10 1/2	248	92	223	55	148	51	100	490	2.5
164-11A06L	Brown	11 1/2	281	92	246	55	170	51	100	360	2.3
165-00A06L	Black	1/2	9	147	9	147	9	131	150	6000	8.1
165-01A06L	Brown	1 1/2	18	145	18	145	15	112	150	2850	6.5
165-02A06L	Red	2 1/2	32	143	32	143	25	92	150	1860	4.9
165-03A06L	Orange	3 1/2	48	138	45	135	33	84	150	1410	4.2
165-04A06L	Yellow	4 1/2	64	133	60	114	43	76	150	1130	3.8
165-05A06L	Green	5 1/2	83	125	78	110	54	73	150	820	3.6
165-06A06L	Blue	6 1/2	103	120	90	94	68	70	150	800	3.4
165-07A06L	Violet	7 1/2	122	115	105	92	79	69	150	770	3.1

Notes:

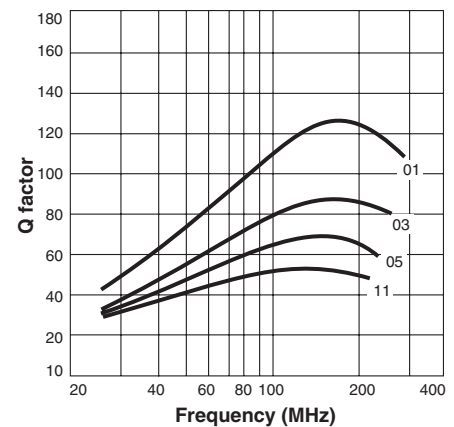
- To order fixed inductance parts without cores, eliminate the "A06", e.g. 164-01.
- Inductance measured on Agilent/HP 4286A Impedance Analyzer with 16092A Spring Clip Fixture.
- L max measured with core halfway out top of form.
- L min measured with core centered in winding.
- Q measured on Agilent/HP 4286A with 16092A fixture, direct connect to Agilent/HP 4342A Q-Meter and Meguro MQ-171 Q-Meter with 0.5" bus bars.
- Current that causes a 15°C rise above 25°C ambient.
- Electrical specifications 25°C.

Typical Q vs Frequency

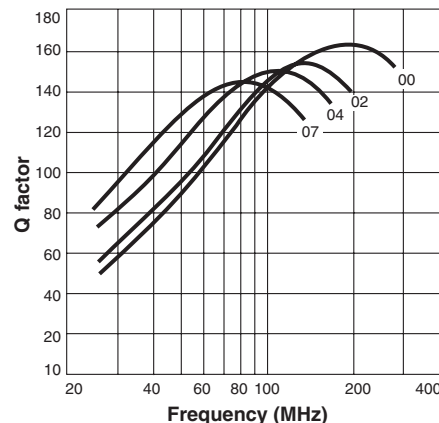
164 Series No Core



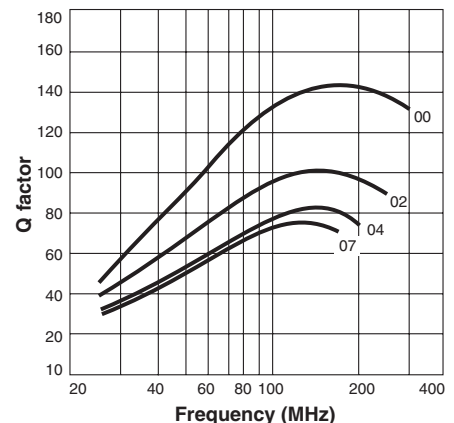
164 Series Al Core



165 Series No Core



165 Series Al Core



COILCRAFT ACCURATE
PRECISION REPEATABLE
MEASUREMENTS
SEE WEB SITE **TEST FIXTURES**

Coilcraft

www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore +65-6484 8412 sales@coilcraft.com.sg

Document 110-2 Revised 08/31/09

© Coilcraft Inc. 2011

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.



5 mm Tunable Inductor–Shielded

TRITUNER 3 TOOLS IN 1
SEE INDEX
TUNING WRENCH

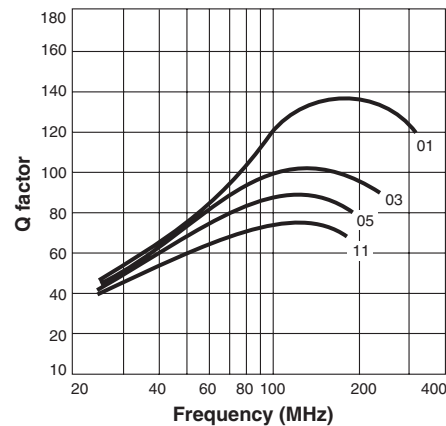
Part number ¹	Color	Turns	No core		at L max ³		at L min ⁴		Freq (MHz)	No core SRF min (MHz)	Irms ⁶ (A)
			L (nH) ²	Q min ⁵	L (nH) ²	Q min ⁵	L (nH) ²	Q min ⁵			
164-01A06SL	Brown	1½	16	124	16	124	14	106	150	2100	7.2
164-02A06SL	Red	2½	27	108	27	108	22	89	150	1300	5.1
164-03A06SL	Orange	3½	41	92	41	92	32	72	150	1100	4.4
164-04A06SL	Yellow	4½	56	86	56	84	43	66	150	940	3.7
164-05A06SL	Green	5½	71	80	71	79	53	60	150	980	3.6
164-06A06SL	Blue	6½	88	79	80	77	65	59	150	800	3.3
164-07A06SL	Violet	7½	105	75	101	70	76	54	100	750	3.1
164-08A06SL	Gray	8½	122	74	117	64	87	54	100	580	2.9
164-09A06SL	White	9½	141	71	134	62	100	53	100	550	2.7
164-10A06SL	Black	10½	160	69	150	60	113	51	100	490	2.5
164-11A06SL	Brown	11½	179	69	164	60	127	51	100	400	2.3
165-00A06SL	Black	1½	9	138	9	138	9	121	150	6000	8.1
165-01A06SL	Brown	1½	16	124	16	124	14	104	150	2570	6.5
165-02A06SL	Red	2½	25	110	25	110	21	87	150	1670	4.9
165-03A06SL	Orange	3½	35	104	33	102	28	78	150	1230	4.2
165-04A06SL	Yellow	4½	46	97	41	90	35	69	150	1150	3.8
165-05A06SL	Green	5½	57	92	50	82	43	67	150	820	3.6
165-06A06SL	Blue	6½	68	86	59	75	52	65	150	800	3.4
165-07A06SL	Violet	7½	80	85	70	74	60	64	150	770	3.1

Notes:

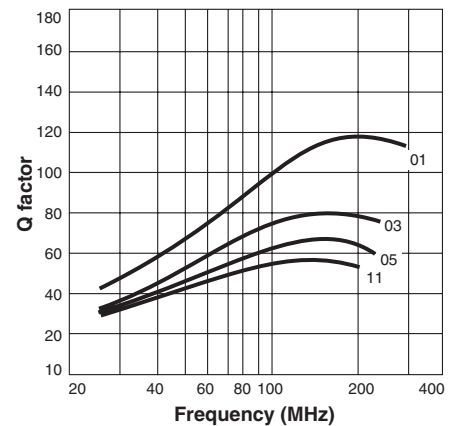
- To order fixed inductance parts without cores, eliminate the "A06", e.g. 164-01S.
- Inductance measured on Agilent/HP 4286A Impedance Analyzer with 16092A Spring Clip Fixture.
- L max measured with core halfway out top of form.
- L min measured with core centered in winding.
- Q measured on Agilent/HP 4286A with 16092A fixture, direct connect to Agilent/HP 4342A Q-Meter and Meguro MQ-171 Q-Meter with 0.5" bus bars.
- Current that causes a 15°C rise above 25°C ambient.
- Electrical specifications 25°C.

Typical Q vs Frequency

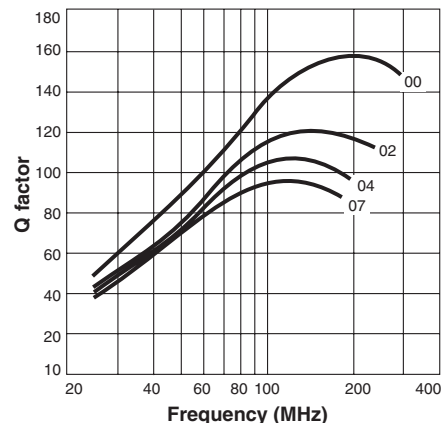
164 Series No Core



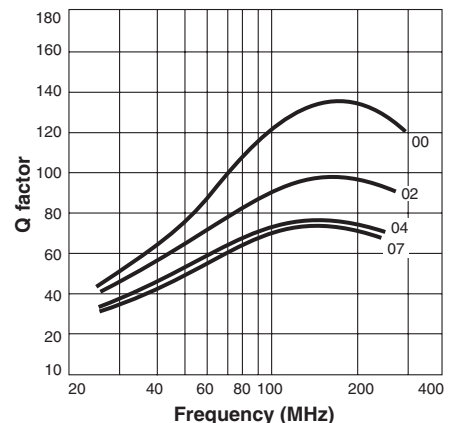
164 Series Al Core



165 Series No Core



165 Series Al Core



COILCRAFT ACCURATE REPEATABLE PRECISION MEASUREMENTS TEST FIXTURES
SEE WEB SITE



www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore +65-6484 8412 sales@coilcraft.com.sg

Document 110-3 Revised 08/31/09

© Coilcraft Inc. 2011

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.