FEATURES

Ceramic body, wire wound construction to provide highest SRFs available in 0603 size.
Ultra-compact inductors provide best Q values at high frequencies.

Available in 3 sizes:

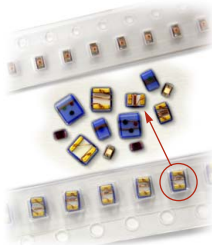
1008 for 4.7 nH to 4700 nH

0805 for 2.8 nH to 820 nH

0603 for 1.6 nH to 270 nH

APPLICATIONS

- IF Impedance matching
- RF Oscillation circuit
- IG choke
- Circuits where large currents flow (IPA, LNA applications)
- Circuits where high Q characteristics (DCC, LNA applications)



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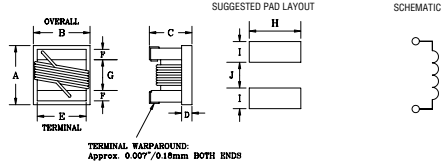
MECHANICAL AND SCHEMATIC (All dimensions in millimeters)



SIZE	Range (nH)	A Max.	B Max.	C Max.	D Ref.	E	F	G	H	I	J
1008	4.7 - 4700	2.92	2.79	2.10	0.51	2.03	0.51	1.52	2.54	1.02	1.27
0805	2.8 - 820	2.29	1.73	1.52	0.51	1.27	0.51	1.02	1.78	1.02	0.76
0603	1.6 - 270	1.80	1.12	1.02	0.38	0.76	0.33	0.86	1.02	0.64	0.64

PART NUMBERING

8432 XX X X XXX

8432

- Inductance Code — 1N6 = 1.6 nH; 82N = 82 nH; R27 = 270 nH
- Packaging Code — T = Tape & Reel
- Inductance Tolerance Code — G = ±2%; J = ±5%; K = ±10%; M = ±20%
- Dimension Code — 08 = 1008 (EIA); 05 = 0805 (EIA); 03 = 0603 (EIA)
- Part Number — 8432 = Wire wound chip inductor

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ISSUE: P1 11/06/02 8432

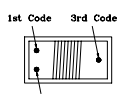
ELECTRICAL SPECIFICATIONS @ 25˚C

1008 Wire Wound Chip Inductors

Inductance (nH)	Test Frequency (MHz)	Q Min.	Test Frequency (MHz)	SRF Min. (MHz)	RDC Max. (Ω)	IDC Max. (mA)	COLOR CODING		
							1ST	2ND	3RD
4.7	50	50	500	4100	0.08	1000	Black	Yellow	Violet
5.6	50	50	500	4100	0.15	1000	Black	Green	Blue
10	50	50	500	4100	0.08	1000	Brown	Black	Black
12	50	50	500	3300	0.09	1000	Brown	Red	Black
15	50	50	500	2500	0.10	1000	Brown	Green	Black
18	50	50	350	2500	0.11	1000	Brown	Gray	Black
22	50	55	350	2400	0.12	1000	Red	Red	Black
27	50	55	350	1600	0.13	1000	Red	Violet	Black
33	50	60	350	1600	0.14	1000	Orange	Orange	Black
39	50	60	350	1500	0.15	1000	Orange	White	Black
47	50	65	350	1500	0.16	1000	Yellow	Violet	Black
56	50	65	350	1300	0.18	1000	Green	Blue	Black
68	50	65	350	1300	0.20	1000	Blue	Gray	Black
82	50	60	350	1000	0.22	1000	Gray	Red	Black
100	25	60	350	1000	0.56	650	Brown	Black	Brown
120	25	60	350	950	0.63	650	Brown	Red	Brown
150	25	45	100	850	0.70	580	Brown	Green	Brown
180	25	45	100	750	0.77	620	Brown	Gray	Brown
220	25	45	100	700	0.84	500	Red	Red	Brown
270	25	45	100	600	0.91	500	Red	Violet	Brown
330	25	45	100	570	1.05	450	Orange	Orange	Brown
390	25	45	100	500	1.12	470	Orange	White	Brown
470	25	45	100	450	1.19	470	Yellow	Violet	Brown
560	25	45	100	415	1.33	400	Green	Blue	Brown
620	25	45	100	375	1.40	300	Blue	Red	Brown
680	25	45	100	375	1.47	400	Blue	Gray	Brown
750	25	45	100	360	1.54	360	Violet	Green	Brown
820	25	45	100	350	1.61	400	Gray	Red	Brown
910	25	35	50	320	1.68	380	White	Brown	Brown
1000	25	35	50	220	1.75	370	Brown	Black	Brown
1200	7.9	35	50	186	2.0	310	Brown	Red	Red
1500	7.9	28	50	200	2.3	330	Brown	Green	Red
1800	7.9	25	50	170	2.6	300	Brown	Gray	Red
2200	7.9	20	50	110	2.8	280	Red	Red	Red
2700	7.9	15	25	140	3.2	290	Red	Violet	Red
3300	7.9	15	25	100	3.4	290	Orange	Orange	Red
3900	7.9	15	25	100	3.6	260	Orange	White	Red
4700	7.9	13	25	90	4.0	260	Yellow	Violet	Red

When ordering, please specify tolerance and packaging codes.

Ex: 8432-08JT3N3
Tolerance: J = ±5%, K = 10%
Packaging: Clear tape and reel (standard).
Operating temperature range: -40 ˚C to 125 ˚C



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ISSUE: P1 11/0602 8432

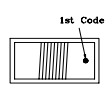
ELECTRICAL SPECIFICATIONS @ 25˚C

0805 Wire Wound Chip Inductors

Inductance (nH)	Test Frequency (MHz)	Q Min.	Test Frequency (MHz)	SRF Min. (MHz)	RDC Max. (Ω)	IDC Max. (mA)	COLOR CODING
2.8	250	70	1500	7900	0.06	800	Gray
3.0	250	65	1500	7900	0.06	800	White
3.3	250	50	1500	7900	0.08	600	Black
5.6	250	65	1000	5500	0.08	600	Orange
6.8	250	50	1000	5500	0.11	600	Brown
7.5	250	50	1000	4500	0.14	600	Green
8.2	250	50	1000	4700	0.12	600	Red
10	250	60	500	4200	0.10	600	Blue
12	250	50	500	4000	0.15	600	Orange
15	250	50	500	3400	0.17	600	Yellow
18	250	50	500	3300	0.20	600	Green
22	250	55	500	2600	0.22	500	Blue
24	250	50	500	2000	0.22	500	Gray
27	250	55	500	2500	0.25	500	Violet
33	250	60	500	2050	0.27	500	Gray
36	250	55	500	1700	0.27	500	Orange
39	250	60	500	2000	0.29	500	White
43	200	60	500	1650	0.34	500	Yellow
47	200	60	500	1650	0.31	500	Black
56	200	60	500	1550	0.34	500	Brown
68	200	60	500	1450	0.38	500	Red
82	150	65	500	1300	0.42	400	Orange
91	150	65	500	1200	0.48	400	Black
100	150	65	500	1200	0.46	400	Yellow
110	150	50	250	1000	0.48	400	Brown
120	150	50	250	1100	0.51	400	Green
150	100	50	250	920	0.56	400	Blue
180	100	50	250	870	0.64	400	Violet
200	100	50	250	860	0.68	400	Red
220	100	50	250	850	0.70	400	Gray
240	100	44	250	690	1.00	350	Red
250	100	45	250	660	1.20	350	Yellow
270	100	48	250	650	1.30	350	White
330	100	48	250	600	1.65	310	Black
390	100	48	250	560	1.80	290	Brown
470	50	33	100	375	2.0	250	Violet
560	25	23	50	340	2.1	230	Orange
680	25	23	50	188	2.3	190	Green
820	25	18	50	215	2.5	180	Blue

When ordering, please specify tolerance and packaging codes.

Ex: 8432-05JT3N3
Tolerance: J = ±5%, K = ±10%, M = ±20%
Packaging: Clear tape and reel (standard).
Operating temperature range: -40 ˚C to 125 ˚C



COLOR CODING

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ELECTRICAL SPECIFICATIONS @ 25˚C

0603 Wire Wound Chip Inductors

Inductance (nH)	Tol %	Q Min	SRF Min. (MHz)	RDC Max. (Ω)	IDC Max. (mA)	900 MHz		1.7 GHz		Color
						L Typ	Q Typ	L Typ	Q Typ	
1.6	10	24	12500	0.030	700	1.67	49	1.65	63	Re
1.8	10	16	12500	0.045	700	1.63	35	1.66	50	Bk
3.6	10	22	5900	0.063	700	3.72	53	3.71	65	Re
3.9	10	22	6900	0.080	700	3.95	49	3.96	67	Br
4.3	10	22	5900	0.063	700	4.32	50	4.33	70	Or
4.7	10	20	5800	0.116	700	4.72	47	4.75	57	Vit
5.1	10	20	5700	0.140	700	4.93	47	4.95	56	Gr
6.3	10	20	5700	0.140	700	5.5	47	6.1	60	Wt
6.8	10	27	5800	0.110	700	6.75	60	7.1	81	Re
7.5	10	28	4800	0.106	700	7.70	60	7.82	65	Br
8.2	10	28	4700	0.109	700	8.30	60	8.50	60	Wt
8.7	5	28	4600	0.109	700	8.86	62	9.32	58	Ye
9.5	5	28	5400	0.135	700	9.70	59	9.92	61	Bk
10	5	31	4800	0.130	700	10	66	10.6	83	Or
11	5	33	4000	0.086	700	11	53	11.5	56	Gry
12	5	35	4000	0.130	700	12.3	72	13.5	83	Ye
15	5	35	4000	0.170	700	15.4	64	16.8	89	Gr
16	5	34	3300	0.104	700	16.2	55	17.3	52	Wt
18	5	35	3100	0.170	700	18.7	70	21.4	69	Bk
22	5	38	3000	0.190	700	22.8	73	26.1	71	Vit
24	5	37	2650	0.135	700	24.5	45	28.7	39	Bk
27	5	40	2800	0.220	600	29.2	74	34.6	65	Gry
30	5	37	2250	0.114	600	31.4	47	39.9	28	Br
33	5	40	2300	0.220	600	36	67	49.5	42	Wt
36	5	38	2080	0.250	600	39.4	47	52.7	24	Re
39	5	40	2200	0.250	600	42.7	60	60.2	40	Bk
43	5	39	2000	0.280	600	47	44	64.9	21	Or
47	5	38	2000	0.280	600	52.2	62	77.2	35	Br
56	5	38	1900	0.310	600	62.5	56	97	26	Re
68	5	37	1700	0.340	600	80.5	54	168	21	Or
72	5	34	1700	0.490	400	82	53	135	20	Ye
82	5	34	1700	0.540	400	96.2	54	177	21	Gr
100	5	34	1400	0.580	400	124	49			Bk
110	5	32	1350	0.610	300	138	43			Vit
120	5	32	1300	0.650	300	166	39			Gry
150	5	28	990	0.920	280	250	25			Wt
180	5	25	990	1.250	240	305	22			Bk
220	5	25	900	1.900	200	480	8			Br
270	5	24	900	2.800	170	980	4			Re

When ordering, please specify tolerance and packaging codes.

Ex: 8432-03JT3N3
Tolerance: G = ±2%, J = ±5%, K = ±10%, M = ±20%
Packaging: Clear tape and reel (standard).
Operating temperature range: -40 ˚C to 125 ˚C

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ENVIRONMENTAL CHARACTERISTICS

Mechanical Performance

	Item	Specification	Test Method
1	Vibration	Appearance: No damage L change: within ±10% Q change: within ±30%	Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55 to 10Hz for 1min Amplitude: 1.5mm Time: 2 hrs for each axis (X, Y & Z), total 6 hrs
2	Resistance to Soldering-teat	Appearance: No damage	Pre-heating: 150 °C, 1min Solder Composition: Sn/Pb=63/67 Solder Temperature: 260±5 °C Immersion Time: 10±1sec
3	Solderability	The electrodes shall be at least 90% covered with new solder coating	Pre-heating: 150 °C, 1min Solder Composition: Sn/Pb=63/67 Solder Temperature: 230±5 °C Immersion Time: 4±1sec

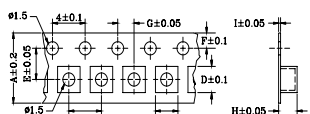
Environmental Performance

	Item	Specification	Test Method
1	Temperature Cycle	Appearance: No damage L change: within ±10% Q change: within ±30%	One cycle: Step / Temperature (°C) / Time (min) 1 / -25±3 / 30 2 / 25±2 / 3 3 / 85±3 / 30 4 / 25±2 / 3 Total: 100 cycles Measured after exposure in the room condition for 24 hrs
2	Humidity Resistance		Temperature: 40±2 °C Relative Humidity: 90-95% Time: 1000 hrs Measured after exposure in the room condition for 24 hrs
3	High Temperature Resistance		Temperature: -85±3 °C Relative Humidity: 20% Time: 1000 hrs Measured after exposure in the room condition for 24 hrs
4	Low Temperature Resistance		Temperature: -25±3 °C Relative Humidity: 0% Time: 1000 hrs Measured after exposure in the room condition for 24 hrs

PACKAGING

Packaging Quantity Unit: pcs

Series \ Packaging	pcs/wheel
8432-03	4,000
8432-05	2,500
8432-08	2,000



Tape Dimensions Unit: mm

Series	A	B	C	D	E	F	G	H	I
8432-03	8	1.1	4	1.75	3.5	1.75	2	1.15	0.25
8432-05	8	1.88	4	2.38	3.5	1.75	2	1.48	0.2
8432-08	8	2.73	4	2.88	3.5	1.75	2	2.33	0.2

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