MULTILAYER Ceramic Chip Inductor 8430 Series

FILTRAN

FEATURES

- High frequency
- High Q
- High IDC

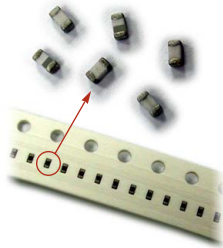
Available in 2 sizes:

0603 for 1.0 nH to 220 nH

0402 for 1.0 nH to 120 nH

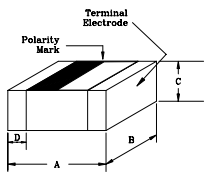
APPLICATIONS

- High frequency circuits for portable telephone, PHS, wireless communication, etc.



CONTENTS **PAGE**

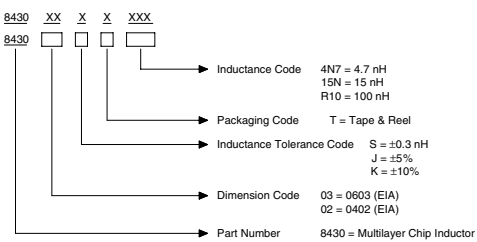
MECHANICAL AND SCHEMATIC (All dimensions in millimeters)



SCHEMATIC

SIZE	Range (nH)	A	B	C	D
0603	1.0 - 220	1.6±0.2	0.8±0.15	0.8±0.15	0.3±0.2
0402	1.0 - 120	1.0±0.15	0.5±0.15	0.5±0.15	0.25±0.15

PART NUMBERING



Continued

ISSUE: P1 11/06/02 8430

ELECTRICAL SPECIFICATIONS @ 25˚C

0603 Multilayer Chip Inductors

Inductance (nH)	Tolerance	Q Min.	L/Q Test Frequency (MHz)	RDC (Ω MAX)	S.R.F. Typical (MHz)	IDC (mA MAX)
1.0	S	8	100	0.10	>17000	300
1.2	S	8	100	0.10	>17000	300
1.5	S	8	100	0.10	>17000	300
1.8	S	8	100	0.15	13000	300
2.2	S	8	100	0.15	12000	300
2.7	S	8	100	0.20	8600	300
3.3	S, K	8	100	0.25	6500	300
3.9	S, K	8	100	0.25	6300	300
4.7	S, K	8	100	0.30	5400	300
5.6	S, K	8	100	0.30	4600	300
6.8	J, K	8	100	0.35	4500	300
8.2	J, K	8	100	0.40	3800	300
10	J, K	8	100	0.45	3700	300
12	J, K	8	100	0.50	3200	300
15	J, K	8	100	0.55	2900	300
18	J, K	10	100	0.60	2100	300
22	J, K	10	100	0.65	2100	300
27	J, K	10	100	0.70	2000	300
33	J, K	10	100	0.80	1600	300
39	J, K	10	100	0.85	1500	300
47	J, K	12	100	1.00	1200	300
56	J, K	12	100	1.10	1100	300
68	J, K	12	100	1.20	1000	300
82	J, K	12	100	1.80	850	300
100	J, K	12	100	2.00	750	300
120	J, K	8	50	2.30	700	300
150	J, K	8	50	2.40	650	300
180	J, K	8	50	2.70	550	300
220	J, K	8	50	2.80	450	300

ISSUE: P1 11/0602 8430

Continued

ELECTRICAL SPECIFICATIONS @ 25˚C

0402 Multilayer Chip Inductors

Inductance (nH)	Tolerance	Q Min.	L/Q Test Frequency (MHz)	RDC (Ω MAX)	S.R.F. Typical (MHz)	IDC (mA MAX)
1.0	S	8	100	0.12	>15000	300
1.2	S	8	100	0.12	>15000	300
1.5	S	8	100	0.13	>15000	300
1.8	S	8	100	0.14	14000	300
2.2	S	8	100	0.16	12000	300
2.7	S	8	100	0.17	9500	300
3.3	S, K	8	100	0.19	8500	300
3.9	S, K	8	100	0.22	7000	300
4.7	S, K	8	100	0.24	6000	300
5.6	S, K	8	100	0.27	5400	300
6.8	J, K	8	100	0.32	5000	250
8.2	J, K	8	100	0.40	4600	250
10	J, K	8	100	0.45	3700	250
12	J, K	8	100	0.50	3200	250
15	J, K	8	100	0.60	3100	250
18	J, K	8	100	0.65	2900	200
22	J, K	8	100	0.80	2100	200
27	J, K	8	100	0.90	1900	200
33	J, K	8	100	1.00	1600	200
39	J, K	8	100	1.20	1400	150
47	J, K	8	100	1.30	1200	150
56	J, K	8	100	2.00	1100	150
68	J, K	8	100	2.20	1000	100
82	J, K	8	100	2.50	900	100
100	J, K	8	100	2.50	850	100
120	J, K	8	50	2.50	750	100

ISSUE: P1 11/06/02 8430

Continued

ENVIRONMENTAL CHARACTERISTICS

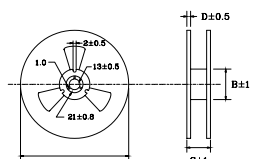
	Item	Specification	Test Methods
1	Bending Strength	Appearance: No damage	Test device shall be soldered on the substrate Substrate Dimension: 95x23x1.5mm Deflection: 2.0mm Keeping Time: 30sec
2	Resistance to Soldering Heat	Appearance: No damage L change: within±10% Q change: within±20%	Pre-heating: 120±20 °C, 1min Solder Temperature: 260±10 °C Immersion Time: 3±1sec Measured after exposure in the room condition for 24hrs
3	Solderability	The electrodes shall be at least 75% covered with new solder coating L change: within±10% Q change: within±20%	Pre-heating: 120±20 °C, 1min Solder Temperature: 230±10 °C Immersion Time: 3±1sec
4	Temperature Cycle		One Cycle: One cycle/step 1: 100±5 °C for 30±1min step 2: -40±3 °C for 30±1min Total: 100cycles Measured after exposure in the room condition for 24hrs
5	Humidity Resistance		Temperature: 40±2 °C Relative Humidity: 90~95% Time: 1000hrs Measured after exposure in the room condition for 24hrs
6	Heat Life		Temperature: 85±2 °C Applied Current: Rated Current Time: 1000hrs Measured after exposure in the room condition for 24hrs
7	Cold Resistance		Temperature: -40±5 °C Time: 1000hrs Measured after exposure in the room condition for 24hrs

PACKAGING

Packaging Quanitity

Unit: pcs

Series \ Packaging	pcs/wheel
8430-03	4,000
8430-02	10,000



Reel Dimensions

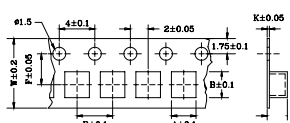
Unit: mm

Series	A	B	C	D
8430-03	178	60	12	1.5
8430-02	178	60	12	1.5

Emboss Plastic Tape Specifications

Unit: mm

Series	A	B	K_0	W	P	F	K
8430-03	1.1	1.9	0.95	8	4	3.5	0.95
8430-02	0.65	1.15	0.6	8	2	3.5	0.6



ISSUE: P1 11/0602 8430