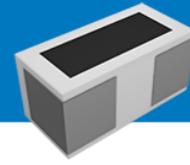


Multilayer Ultra High Q Chip Ceramic Inductor – UHQ Series



Operating temp. : -55°C ~+125°C

FEATURES

- ◆ Monolithic structure for high reliability
- ◆ High self-resonant frequency
- ◆ Excellent solderability and high heat resistance
- ◆ Super High Q value

APPLICATIONS

- ◆ RF circuit in telecommunication and other equipments
- ◆ Mobile phones and other electronic devices
- ◆ Bluetooth, W-LAN

PRODUCT IDENTIFICATION

1 UHQ	2 0402	3 H	4 3N9	5 B	6 P	7 01
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1 Type	
UHQ	Super High Q Chip Inductor

2 External Dimensions (L×W) (mm)	
0402 [01005]	0.4×0.2

3 Feature Type	
H	Chip Thickness=0.20mm
SL	Maximum thickness 0.25mm

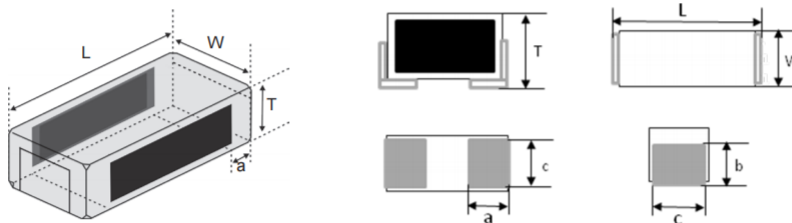
4 Nominal Inductance	
Example	Nominal Value
3N9	3.9nH
10N	10nH
※N=nH	

5 Inductance Tolerance	
B	±0.1nH
C	±0.2nH
S	±0.3nH
H	±3%
J	±5%

6 Packing	
P	Plastic Tape Carrier Package

7 Serial Code	
01	Internal code

SHAPE AND DIMENSIONS



Type	L	W	T	a	b	c
UHQ0402H [01005]	0.4±0.02 [.016±.0008]	0.2±0.02 [.008±.0008]	0.2±0.02 [.008±.0008]	0.14±0.03 [.005±.0010]	0.14±0.03 [.005±.0010]	0.17±0.03 [.006±.0010]
UHQ0402SL [01005]	0.4±0.02 [.016±.0008]	0.2±0.02 [.008±.0008]	0.23±0.02 [.009±.0008]	0.14±0.03 [.005±.0012]	0.14±0.03 [.005±.0012]	0.17±0.03 [.007±.0012]

Unit: mm [inch]

SPECIFICATIONS UHQ0402H Series

Part Number	Inductance	Min. Quality Factor	L, Q Test Freq.	Typical Q @ Freq. (GHz)					Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
				0.5	0.8	1.8	2.0	2.4			
Units	nH	-	MHz	-					MHz	Ω	mA
Symbol	L	Q	Freq.	Q					S.R.F	DCR	I _r
UHQ0402H0N2 □ P01	0.2	-	500	-	-	-	-	-	16600	0.08	990
UHQ0402H0N3 □ P01	0.3	-	500	-	-	-	-	-	16600	0.08	990
UHQ0402H0N4 □ P01	0.4	-	500	-	-	-	-	-	16600	0.08	990
UHQ0402H0N5 □ P01	0.5	-	500	-	-	-	-	-	16600	0.08	730
UHQ0402H0N6 □ P01	0.6	13	500	18	23	40	42	51	16600	0.08	730
UHQ0402H0N7 □ P01	0.7	13	500	18	23	39	41	49	16600	0.08	730
UHQ0402H0N8 □ P01	0.8	13	500	18	23	38	41	48	16600	0.11	630
UHQ0402H0N9 □ P01	0.9	13	500	18	23	38	40	48	16600	0.11	580
UHQ0402H1N0 □ P01	1	13	500	17	22	37	40	48	16600	0.11	580
UHQ0402H1N1 □ P01	1.1	13	500	17	22	37	39	41	16600	0.11	580
UHQ0402H1N2 □ P01	1.2	13	500	17	22	36	38	40	16600	0.17	550
UHQ0402H1N3 □ P01	1.3	13	500	17	22	35	37	39	16000	0.17	400
UHQ0402H1N4 □ P01	1.4	13	500	17	22	35	36	43	15000	0.17	400
UHQ0402H1N5 □ P01	1.5	13	500	17	22	35	36	37	15000	0.17	390
UHQ0402H1N6 □ P01	1.6	13	500	17	22	35	37	40	15000	0.23	390
UHQ0402H1N7 □ P01	1.7	13	500	17	20	35	37	40	15000	0.23	380
UHQ0402H1N8 □ P01	1.8	13	500	17	21	34	36	39	15000	0.23	380
UHQ0402H1N9 □ P01	1.9	13	500	17	20	34	36	40	13000	0.23	380
UHQ0402H2N0 □ P01	2	13	500	17	21	35	37	40	13000	0.24	380
UHQ0402H2N1 □ P01	2.1	13	500	17	20	33	36	40	13000	0.24	380
UHQ0402H2N2 □ P01	2.2	13	500	17	23	36	39	39	13000	0.24	380
UHQ0402H2N3 □ P01	2.3	13	500	17	21	34	36	43	13000	0.29	370
UHQ0402H2N4 □ P01	2.4	13	500	17	23	35	37	40	13000	0.29	370
UHQ0402H2N5 □ P01	2.5	13	500	17	21	34	36	40	11500	0.3	370
UHQ0402H2N6 □ P01	2.6	13	500	17	20	34	36	40	11500	0.3	370
UHQ0402H2N7 □ P01	2.7	13	500	17	21	34	36	39	11500	0.32	370
UHQ0402H2N8 □ P01	2.8	13	500	17	20	33	35	40	10000	0.32	360
UHQ0402H2N9 □ P01	2.9	13	500	17	20	32	35	40	10000	0.35	360
UHQ0402H3N0 □ P01	3	13	500	17	19	32	34	39	10000	0.35	360
UHQ0402H3N1 □ P01	3.1	13	500	17	20	32	35	40	10000	0.4	290
UHQ0402H3N2 □ P01	3.2	13	500	17	20	32	35	40	10000	0.4	290
UHQ0402H3N3 □ P01	3.3	13	500	17	20	33	35	37	10000	0.4	290
UHQ0402H3N4 □ P01	3.4	13	500	17	19	31	33	37	9700	0.4	280
UHQ0402H3N5 □ P01	3.5	13	500	17	19	32	34	36	9700	0.4	280
UHQ0402H3N6 □ P01	3.6	13	500	17	19	31	33	35	9700	0.4	280
UHQ0402H3N7 □ P01	3.7	13	500	17	19	31	33	37	9700	0.4	270
UHQ0402H3N8 □ P01	3.8	13	500	17	19	31	33	36	9700	0.48	270
UHQ0402H3N9 □ P01	3.9	13	500	17	19	28	29	34	9700	0.48	270
UHQ0402H4N0 □ P01	4	13	500	17	18	29	32	34	9000	0.48	270
UHQ0402H4N1 □ P01	4.1	13	500	17	19	29	32	35	9000	0.6	270
UHQ0402H4N2 □ P01	4.2	13	500	17	19	31	33	35	9000	0.6	270
UHQ0402H4N3 □ P01	4.3	13	500	17	19	29	32	35	9000	0.6	270
UHQ0402H4N7 □ P01	4.7	13	500	17	19	28	31	34	8500	0.6	270
UHQ0402H5N1 □ P01	5.1	13	500	17	19	29	32	35	7800	0.6	250
UHQ0402H5N6 □ P01	5.6	13	500	17	20	34	35	37	7800	0.65	230
UHQ0402H6N2 □ P01	6.2	13	500	17	20	34	35	36	7200	0.7	220
UHQ0402H6N8 □ P01	6.8	13	500	17	21	33	35	37	6600	0.8	210
UHQ0402H7N5 □ P01	7.5	13	500	16	21	32	35	37	6600	0.8	200

SPECIFICATIONS UHQ0402H Series

Part Number	Inductance	Min. Quality Factor	L, Q Test Freq.	Typical Q @ Freq. (GHz)					Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
				0.5	0.8	1.8	2.0	2.4			
Units	nH	-	MHz	-					MHz	Ω	mA
Symbol	L	Q	Freq.	Q					S.R.F	DCR	I _r
UHQ0402H8N2 □ P01	8.2	13	500	17	23	33	35	37	6600	0.85	190
UHQ0402H9N1 □ P01	9.1	13	500	17	23	32	35	36	5900	0.95	170
UHQ0402H10N □ P01	10	13	500	16	22	29	33	35	5900	0.95	170
UHQ0402H11N □ P01	11	13	500	16	22	28	29	32	3500	1.1	140
UHQ0402H12N □ P01	12	13	500	16	22	28	29	32	3500	1.2	140
UHQ0402H13N □ P01	13	12	500	16	22	26	28	29	3000	1.3	140
UHQ0402H15N □ P01	15	12	500	16	21	26	28	29	3000	1.4	140
UHQ0402H16N □ P01	16	12	500	16	21	26	28	29	3000	1.4	140
UHQ0402H18N □ P01	18	10	500	16	21	26	28	29	2500	1.5	140
UHQ0402H20N □ P01	20	10	500	16	19	24	25	26	2500	1.5	140

UHQ0402SL Series

Part Number	Inductance	Min. Quality Factor	L, Q Test Freq.	Typical Q @ Freq. (GHz)					Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
				0.5	0.8	1.8	2.0	2.4			
Units	nH	-	MHz	-					MHz	Ω	mA
Symbol	L	Q	Freq.	Q					S.R.F	DCR	I _r
UHQ0402SL0N3 □ P01	0.3		500	-	-	-	-	-	19000	0.01	1000
UHQ0402SL0N4 □ P01	0.4		500	-	-	-	-	-	19000	0.02	1000
UHQ0402SL0N5 □ P01	0.5		500						19000	0.11	1000
UHQ0402SL0N6 □ P01	0.6	14	500	28	31	44	51	60	19000	0.03	1000
UHQ0402SL0N7 □ P01	0.7	14	500	28	31	44	47	56	19000	0.05	1000
UHQ0402SL0N8 □ P01	0.8	14	500	28	31	44	47	56	19000	0.04	1000
UHQ0402SL0N9 □ P01	0.9	14	500	28	31	44	47	56	18000	0.05	1000
UHQ0402SL1N0 □ P01	1.0	14	500	25	28	42	45	52	18000	0.06	800
UHQ0402SL1N1 □ P01	1.1	14	500	25	28	42	45	52	18000	0.09	800
UHQ0402SL1N2 □ P01	1.2	14	500	25	28	42	45	52	16000	0.08	750
UHQ0402SL1N3 □ P01	1.3	14	500	22	26	41	44	48	16000	0.08	700
UHQ0402SL1N4 □ P01	1.4	14	500	22	26	41	44	48	16000	0.08	700
UHQ0402SL1N5 □ P01	1.5	14	500	22	25	39	42	47	15000	0.09	700
UHQ0402SL1N6 □ P01	1.6	14	500	22	26	40	43	48	15000	0.08	700
UHQ0402SL1N7 □ P01	1.7	14	500	22	26	40	43	48	15000	0.12	650
UHQ0402SL1N8 □ P01	1.8	14	500	22	25	39	42	47	14000	0.14	550
UHQ0402SL1N9 □ P01	1.9	14	500	22	25	39	42	47	14000	0.14	550
UHQ0402SL2N0 □ P01	2.0	14	500	22	25	39	42	47	14000	0.18	550
UHQ0402SL2N1 □ P01	2.1	14	500	22	25	39	42	47	14000	0.17	550
UHQ0402SL2N2 □ P01	2.2	14	500	22	25	39	42	47	14000	0.20	550
UHQ0402SL2N3 □ P01	2.3	14	500	22	25	39	42	47	14000	0.14	550
UHQ0402SL2N4 □ P01	2.4	14	500	21	25	38	41	47	13000	0.14	550
UHQ0402SL2N5 □ P01	2.5	14	500	21	25	38	41	47	11000	0.15	550
UHQ0402SL2N6 □ P01	2.6	14	500	21	25	38	41	47	11000	0.14	550
UHQ0402SL2N7 □ P01	2.7	14	500	21	25	38	41	47	11000	0.19	500
UHQ0402SL2N8 □ P01	2.8	14	500	21	25	38	41	47	11000	0.18	500
UHQ0402SL2N9 □ P01	2.9	14	500	21	25	38	41	47	11000	0.18	500
UHQ0402SL3N0 □ P01	3.0	14	500	21	25	38	41	47	10000	0.18	500
UHQ0402SL3N1 □ P01	3.1	14	500	21	25	38	41	46	9500	0.24	450
UHQ0402SL3N2 □ P01	3.2	14	500	20	25	38	41	46	9500	0.24	450

Multilayer Chip Ferrite Inductor
Multilayer Chip Inductor for Choke
Multilayer Chip Power Inductor
Multilayer Ultra High Q Chip Ceramic Inductor
Multilayer High Q Chip Ceramic Inductor
Multilayer Chip Ceramic Inductor
Multilayer High Frequency Chip Ceramic Inductor
Wire Wound Chip Ferrite Inductor
SMD Power Inductor

SPECIFICATIONS UHQ0402SL Series

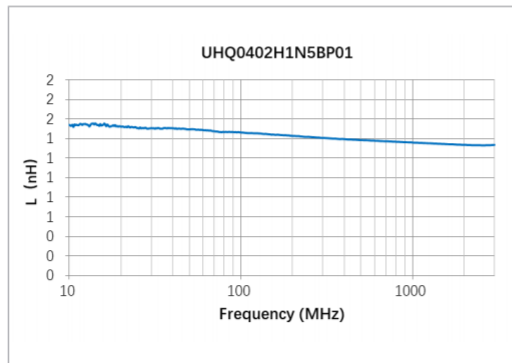
Part Number	Inductance	Min. Quality Factor	L, Q Test Freq.	Typical Q @ Freq. (GHz)					Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
				0.5	0.8	1.8	2.0	2.4			
Units	nH	-	MHz	-					MHz	Ω	mA
Symbol	L	Q	Freq.	Q					S.R.F	DCR	I _r
UHQ0402SL3N3 □ P01	3.3	14	500	20	24	36	40	44	8800	0.24	450
UHQ0402SL3N4 □ P01	3.4	14	500	20	24	36	40	44	8800	0.22	450
UHQ0402SL3N5 □ P01	3.5	14	500	20	24	36	40	44	8800	0.21	450
UHQ0402SL3N6 □ P01	3.6	14	500	20	24	36	40	44	7500	0.21	450
UHQ0402SL3N7 □ P01	3.7	14	500	20	24	35	38	42	7500	0.24	400
UHQ0402SL3N8 □ P01	3.8	14	500	20	24	35	38	42	7500	0.213	400
UHQ0402SL3N9 □ P01	3.9	14	500	20	24	35	38	42	7500	0.225	400
UHQ0402SL4N0 □ P01	4.0	14	500	20	24	35	38	42	6500	0.29	400
UHQ0402SL4N1 □ P01	4.1	14	500	20	24	35	38	42	6500	0.34	350
UHQ0402SL4N2 □ P01	4.2	14	500	20	24	35	38	42	6500	0.33	350
UHQ0402SL4N3 □ P01	4.3	14	500	20	24	35	38	42	6000	0.25	350
UHQ0402SL4N7 □ P01	4.7	14	500	19	23	34	37	39	6000	0.35	350
UHQ0402SL5N1 □ P01	5.1	14	500	19	23	34	37	39	6000	0.51	350
UHQ0402SL5N6 □ P01	5.6	14	500	19	23	34	37	39	5500	0.42	300
UHQ0402SL6N2 □ P01	6.2	14	500	18	24	33	35	37	5500	0.42	300
UHQ0402SL6N8 □ P01	6.8	14	500	18	24	33	35	37	5500	0.52	300
UHQ0402SL7N5 □ P01	7.5	14	500	18	24	33	35	37	5500	0.60	300
UHQ0402SL8N2 □ P01	8.2	14	500	18	24	32	34	35	4500	0.61	300
UHQ0402SL9N1 □ P01	9.1	14	500	18	24	32	34	35	4500	0.79	300
UHQ0402SL10N □ P01	10	14	500	18	24	32	34	35	4500	0.85	250
UHQ0402SL11N □ P01	11	14	500	18	24	32	34	35	4500	0.75	250
UHQ0402SL12N □ P01	12	14	500	18	24	31	33	32	4300	0.81	250
UHQ0402SL13N □ P01	13	13	500	17	23	30	32	31	4300	0.82	250
UHQ0402SL14N □ P01	14	13	500	17	22	30	31	31	4000	1.3	140
UHQ0402SL15N □ P01	15	13	500	17	22	29	31	30	3500	1.4	140
UHQ0402SL16N □ P01	16	13	500	17	22	29	31	30	3500	1.38	140
UHQ0402SL18N □ P01	18	13	500	17	21	27	30	29	3500	1.52	140
UHQ0402SL19N □ P01	19	13	500	17	21	27	30	29	3000	1.74	140
UHQ0402SL20N □ P01	20	12	500	17	20	26	27	25	3000	1.5	140
UHQ0402SL22N □ P01	22	12	500	17	20	26	27	25	3000	1.5	140

※ □: Please specify the inductance tolerance. For L≤4.2nH, choose B=±0.1nH, C=±0.2nH or S=±0.3nH; For 4.2nH < L < 5.6nH, choose, H=±3%, J=±5% or S=±0.3nH; For L≥5.6nH, choose, H=±3%, J=±5%
 ※: Please refer to "Measurement Notice for RF Inductors".

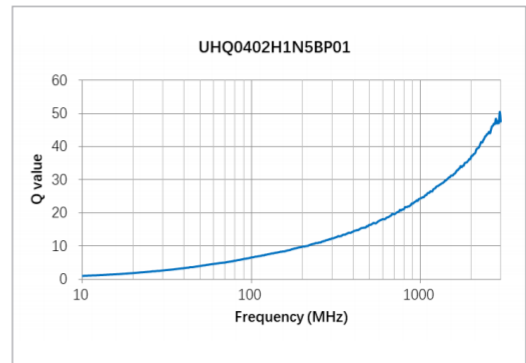
TYPICAL ELECTRICAL CHARACTERISTICS

UHQ0402H Series

Inductance-Frequency Characteristics(Typ.)

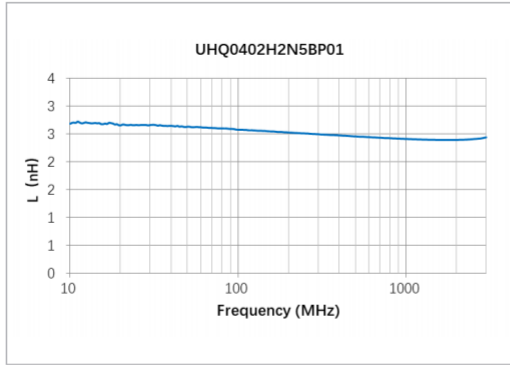


Q-Frequency Characteristics(Typ.)

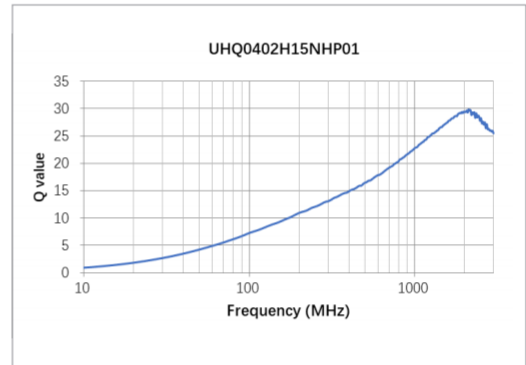
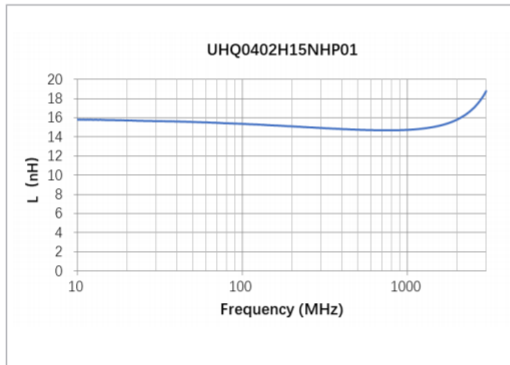
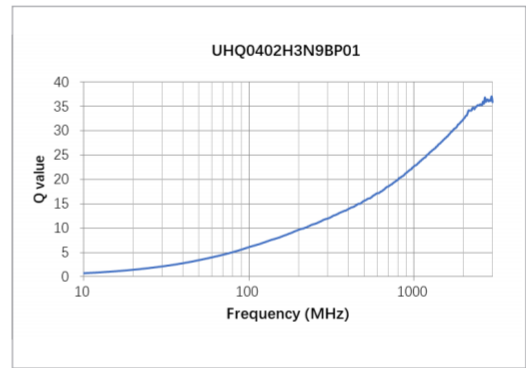
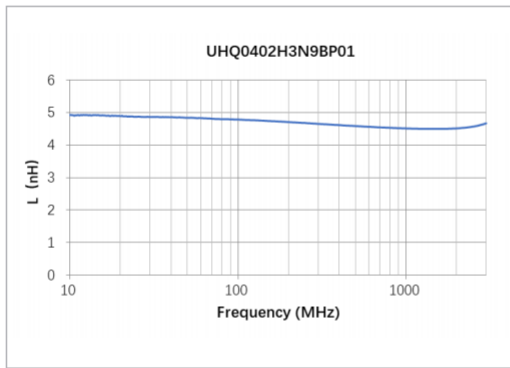
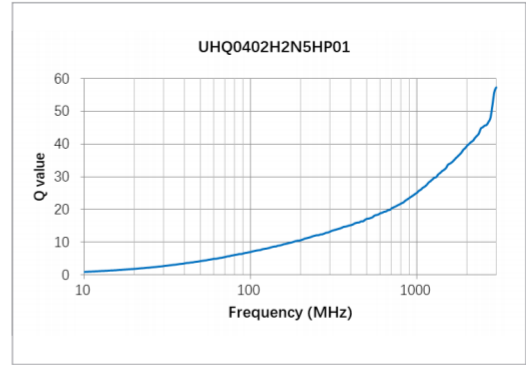


TYPICAL ELECTRICAL CHARACTERISTICS

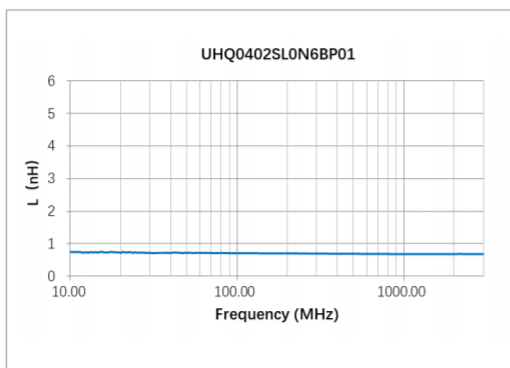
UHQ0402H Series Inductance-Frequency Characteristics(Typ.)



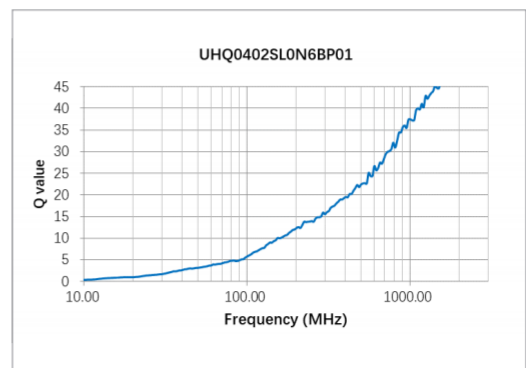
Q-Frequency Characteristics(Typ.)



UHQ0402SL Series Inductance-Frequency Characteristics(Typ.)



Q-Frequency Characteristics(Typ.)



TYPICAL ELECTRICAL CHARACTERISTICS

UHQ0402SL Series Inductance-Frequency Characteristics(Typ.)

Q-Frequency Characteristics(Typ.)

