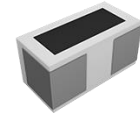


Multilayer Ultra High Q Chip Ceramic Inductor – UHQ-H Series

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

UHQ

①

Type	
UHQ	Super High Q Chip Inductor

0402

②

H

③

External Dimensions (LxW) (mm)	
0402[01005]	0.4x0.2

3N9

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
G	±2%
H	±3%
J	±5%

B

⑤

P

⑥

Characteristics Code	
H	Chip Thickness=0.20mm

⑥

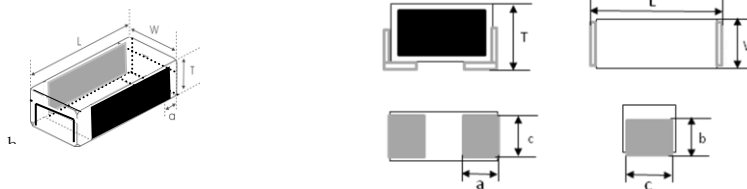
Packing	
P	Plastic Tape Carrier Package

⑦

Serial Code	
01	Internal code

SHAPE AND DIMENSIONS

Unit: mm [inch]



Type	L	W	T	a	b	c
0402 [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]

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	3.0	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

※□: Please specify the inductance tolerance. For $L \leq 4.2\text{nH}$, choose $B = \pm 0.1\text{nH}$, $C = \pm 0.2\text{nH}$ or $S = \pm 0.3\text{nH}$; For $4.2\text{nH} < L < 5.6\text{nH}$, choose, $H = \pm 3\%$, $J = \pm 5\%$ or $S = \pm 0.3\text{nH}$; For $L \geq 5.6\text{nH}$, choose, $H = \pm 3\%$, $J = \pm 5\%$

※: Please refer to "Measurement Notice for RF Inductors".