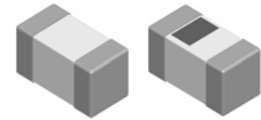


Multilayer Chip Ceramic Inductor – MHFL-D Series

Operating Temp. :MHFL0603&1005 series: -55 °C~+125 °C

MHFL1608&2012 series: -40 °C~+85 °C



FEATURES

- Monolithic structure for high reliability
- High self-resonant frequency
- Excellent solderability and high heat resistance

APPLICATIONS

- RF circuit in telecommunication and other equipments

PRODUCT IDENTIFICATION

MHFL

①

Type	
MHFL	Chip Ceramic Inductor

①

Nominal Inductance	
Example	Nominal Value
3N9	3.9nH
10N	10nH
R10	100nH
※R= Decimal Point, N=nH	

③

1608

②

10N

③

②

External Dimensions (LxW) (mm)	
0603 [0201]	0.6x0.3
1005 [0402]	1.0x0.5
1608 [0603]	1.6x0.8
2012 [0805]	2.0x1.25

④

Inductance Tolerance	
S	±0.3nH
J	±5%
K	±10%

SHAPE AND DIMENSIONS

Unit: mm [inch]

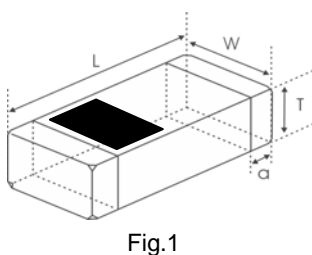


Fig.1

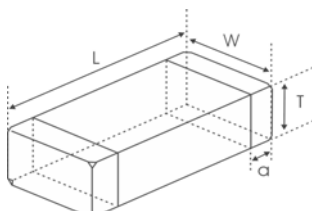


Fig.2

Type	L	W	T	a	
MHFL0603 [0201]	0.6±0.05 [.024±.002]	0.3±0.05 [.012±.002]	0.3±0.05 [.012±.002]	0.15±0.05 [.006±.002]	Fig.1.2
MHFL1005 [0402]	1.0±0.15 [.039±.006]	0.5±0.15 [.020±.006]	0.5±0.15 [.020±.006]	0.25±0.1 [.010±.004]	
MHFL1608 [0603]	1.6±0.15 [.063±.006] 1.65±0.15 [.065±.006]	0.8±0.15 [.031±.006]	0.8±0.15 [.031±.006]	0.3±0.2 [.012±.008]	Fig.1.2
MHFL2012 [0805]	2.0±0.2 [.079±.008]	1.25±0.2 [.049±.008]	0.85±0.2 [.033±.008]	0.5±0.2 [.020±.008]	



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SPECIFICATIONS

MHFL0603-D TYPE

Part Number	Inductance	Min. Q _{dry} Factr	L, Q Test Freq. L/Q	Typical Q @ Freq. (MHz)						Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current	Thickness
				100	300	500	800	1000	1800				
Units	nH	-	MHz	-						MHz	Ω	mA	mm [inch]
Symbol	L	Q	Freq	Q						S.R.F	DCR	I _r	T
MHFL0603-1N0S	1.0±0.3	4	100	5	8	12	16	18	23	>6000	0.15	550	0.3±0.05 [.012±.002]
MHFL0603-1N1S	1.1±0.3	4	100	5	8	11	15	17	22	>6000	0.15	550	
MHFL0603-1N2S	1.2±0.3	4	100	5	8	11	14	16	21	>6000	0.16	550	
MHFL0603-1N3S	1.3±0.3	4	100	5	8	11	14	16	21	>6000	0.16	550	
MHFL0603-1N5S	1.5±0.3	4.5	100	5	8	11	14	16	21	>6000	0.20	500	
MHFL0603-1N6S	1.6±0.3	4.5	100	5	8	11	14	16	20	>6000	0.22	440	
MHFL0603-1N8S	1.8±0.3	4.5	100	5	8	11	15	17	21	>6000	0.25	420	
MHFL0603-2N0S	2.0±0.3	4.5	100	5	9	11	15	17	21	>6000	0.25	400	
MHFL0603-2N2S	2.2±0.3	4.5	100	5	9	12	16	18	22	>6000	0.26	400	
MHFL0603-2N4S	2.4±0.3	4.5	100	5	9	12	16	18	22	>6000	0.26	380	
MHFL0603-2N7S	2.7±0.3	4.5	100	5	9	12	16	18	22	>6000	0.28	350	
MHFL0603-3N0S	3.0±0.3	4.5	100	5	9	12	16	18	22	6000	0.32	300	
MHFL0603-3N3S	3.3±0.3	4.5	100	5	10	13	17	19	23	5800	0.35	300	
MHFL0603-3N6S	3.6±0.3	4.5	100	5	10	13	17	19	23	5500	0.35	300	
MHFL0603-3N9S	3.9±0.3	4.5	100	5	9	12	16	18	22	5200	0.40	280	
MHFL0603-4N3S	4.3±0.3	4.5	100	5	9	12	16	18	22	4800	0.40	280	
MHFL0603-4N7S	4.7±0.3	4.5	100	5	9	12	15	17	21	4600	0.45	250	
MHFL0603-5N1S	5.1±0.3	5	100	6	10	13	17	19	22	4500	0.45	250	
MHFL0603-5N6S	5.6±0.3	5	100	6	10	13	17	19	21	4200	0.48	250	
MHFL0603-6N2S	6.2±0.3	5	100	6	10	12	16	18	20	4000	0.50	250	
MHFL0603-6N8J	6.8	5	100	6	10	12	16	18	20	3800	0.55	240	
MHFL0603-7N5J	7.5	5	100	6	10	12	16	18	20	3500	0.65	220	
MHFL0603-8N2J	8.2	5	100	6	10	12	16	18	20	3300	0.70	200	
MHFL0603-9N1J	9.1	5	100	6	10	12	16	18	20	3200	0.80	180	
MHFL0603-10NJ	10	5	100	6	10	13	16	18	19	3000	0.85	180	
MHFL0603-12NJ	12	5	100	6	10	13	16	18	18	2500	1.00	180	
MHFL0603-15NJ	15	5	100	6	12	15	19	21	18	2200	1.30	160	
MHFL0603-18NJ	18	6	100	7	12	15	19	20	17	2000	1.40	150	
MHFL0603-22NJ	22	6	100	7	13	15	19	20	15	1800	1.50	140	
MHFL0603-27NJ	27	6	100	7	13	15	19	20	13	1700	1.60	120	
MHFL0603-33NJ	33	6	100	7	10	12	14	15	9	1600	2.20	80	
MHFL0603-39NJ	39	6	100	7	10	12	14	14	8	1500	2.30	80	
MHFL0603-47NJ	47	6	100	7	10	12	13	13	5	1400	2.60	80	
MHFL0603-56NJ	56	6	100	7	10	12	12	11	-	1200	3.00	50	
MHFL0603-68NJ	68	6	100	7	10	12	11	10	-	1200	3.20	50	
MHFL0603-82NJ	82	6	100	7	10	12	11	9	-	1000	3.50	50	
MHFL0603-R10J	100	6	100	7	10	11	9	5	-	1000	4.30	50	

※□: Please specify the inductance tolerance code (J=±5%, K=±10%). The product with tolerance less than ±5%, ±10% is also available. Please contact your local sales.



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SPECIFICATIONS

MHFL1005-D TYPE

Part Number	Inductance	Min. Quality Factor	L,Q Test Freq. L/Q	Typical Q @ Freq. (MHz)			Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current	Thickness
				100	800	1000				
Units	nH	-	MHz	-			MHz	Ω	mA	mm [inch]
Symbol	L	Q	Freq	Q			S.R.F	DCR	I _r	T
MHFL1005-1N0S	1.0±0.3	8	100	11	34	36	10000	0.10	400	0.5±0.15 [.020±.006]
MHFL1005-1N1S	1.1±0.3	8	100	11	34	36	10000	0.10	400	
MHFL1005-1N2S	1.2±0.3	8	100	11	34	36	10000	0.10	400	
MHFL1005-1N3S	1.3±0.3	8	100	11	34	36	10000	0.10	400	
MHFL1005-1N5S	1.5±0.3	8	100	11	34	36	6000	0.10	300	
MHFL1005-1N6S	1.6±0.3	8	100	11	32	35	6000	0.10	300	
MHFL1005-1N8S	1.8±0.3	8	100	11	30	34	6000	0.10	300	
MHFL1005-2N0S	2.0±0.3	8	100	10	29	33	6000	0.20	300	
MHFL1005-2N2S	2.2±0.3	8	100	10	29	33	6000	0.20	300	
MHFL1005-2N4S	2.4±0.3	8	100	10	29	32	6000	0.20	300	
MHFL1005-2N7S	2.7±0.3	8	100	10	29	32	6000	0.20	300	
MHFL1005-3N0S	3.0±0.3	8	100	10	29	32	6000	0.20	300	
MHFL1005-3N3S	3.3±0.3	8	100	10	29	32	6000	0.20	300	
MHFL1005-3N6S	3.6±0.3	8	100	10	28	31	4000	0.20	300	
MHFL1005-3N9S	3.9±0.3	8	100	10	28	31	4000	0.20	300	
MHFL1005-4N3S	4.3±0.3	8	100	10	28	31	4000	0.20	300	
MHFL1005-4N7S	4.7±0.3	8	100	10	28	31	4000	0.20	300	
MHFL1005-5N1S	5.1±0.3	8	100	10	28	30	4000	0.30	300	
MHFL1005-5N6S	5.6±0.3	8	100	10	28	30	4000	0.30	300	
MHFL1005-6N2S	6.2±0.3	8	100	10	27	30	3900	0.30	300	
MHFL1005-6N8J	6.8	8	100	10	27	30	3900	0.30	300	
MHFL1005-7N5J	7.5	8	100	10	27	30	3700	0.40	300	
MHFL1005-8N2J	8.2	8	100	10	27	30	3600	0.40	300	
MHFL1005-9N1J	9.1	8	100	10	27	30	3400	0.40	300	
MHFL1005-10NJ	10	8	100	10	27	30	3200	0.40	300	
MHFL1005-12NJ	12	8	100	10	26	29	2700	0.50	300	
MHFL1005-15NJ	15	8	100	10	26	28	2300	0.50	300	
MHFL1005-18NJ	18	8	100	10	25	27	2100	0.60	300	
MHFL1005-20NJ	20	8	100	10	25	26	2000	0.60	300	
MHFL1005-22NJ	22	8	100	10	25	25	1900	0.60	300	
MHFL1005-27NJ	27	8	100	10	25	23	1600	0.70	300	
MHFL1005-33NJ	33	8	100	10	22	22	1300	0.80	200	
MHFL1005-39NJ	39	8	100	10	22	19	1200	1.00	200	
MHFL1005-43NJ	43	8	100	10	21	16	1100	1.10	200	
MHFL1005-47NJ	47	8	100	10	21	16	1000	1.10	200	
MHFL1005-56NJ	56	8	100	10	18	13	750	1.20	200	
MHFL1005-68NJ	68	8	100	10	18	9	750	1.40	180	
MHFL1005-82NJ	82	8	100	10	13	-	750	2.40	150	
MHFL1005-R10J	100	8	100	10	12	-	700	2.60	150	
MHFL1005-R12J	120	8	100	10	-	-	600	2.80	150	
MHFL1005-R15J	150	8	100	10	-	-	550	3.20	100	
MHFL1005-R18J	180	8	100	10	-	-	500	3.70	100	
MHFL1005-R22J	220	8	100	12	-	-	450	4.00	100	
MHFL1005-R27J	270	8	100	12	-	-	400	4.50	100	
MHFL1005-R33J	330	6	50	-	-	-	350	7.00	50	

※□: Please specify the inductance tolerance code (J=±5%, K=±10%). The product with tolerance less than ±5%, ±10% is also available. Please contact your local sales.



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SPECIFICATIONS

MHFL1608-D TYPE

Part Number	Inductance	Min. Quality Factor	L,Q Test Freq. L/Q	Typical Q @ Freq. (MHz)			Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current	Thickness
				100	800	1000				
Units	nH	-	MHz	-			MHz	Ω	mA	mm [inch]
Symbol	L	Q	Freq	Q			S.R.F	DCR	I _r	T
MHFL1608-1N0S	1.0±0.3	8	100	13	70	80	10000	0.05	500	0.8±0.15 [.031±.006]
MHFL1608-1N2S	1.2±0.3	8	100	13	60	70	10000	0.05	500	
MHFL1608-1N5S	1.5±0.3	8	100	13	47	68	6000	0.10	500	
MHFL1608-1N8S	1.8±0.3	8	100	13	45	61	6000	0.10	500	
MHFL1608-2N2S	2.2±0.3	8	100	13	45	60	6000	0.10	500	
MHFL1608-2N7S	2.7±0.3	10	100	13	44	55	6000	0.12	500	
MHFL1608-3N3S	3.3±0.3	10	100	13	43	50	6000	0.15	500	
MHFL1608-3N9S	3.9±0.3	10	100	13	43	50	6000	0.16	500	
MHFL1608-4N7S	4.7±0.3	10	100	13	43	50	6000	0.20	500	
MHFL1608-5N6S	5.6±0.3	10	100	14	42	48	5000	0.25	500	
MHFL1608-6N8J	6.8	10	100	14	43	50	5000	0.30	500	
MHFL1608-8N2J	8.2	10	100	14	43	48	4500	0.35	500	
MHFL1608-10NJ	10	12	100	15	45	50	3500	0.40	300	
MHFL1608-12NJ	12	12	100	18	48	50	3000	0.45	300	
MHFL1608-15NJ	15	12	100	18	48	50	2300	0.50	300	
MHFL1608-18NJ	18	12	100	16	48	51	2200	0.55	300	
MHFL1608-22NJ	22	12	100	16	45	48	2000	0.60	300	
MHFL1608-27NJ	27	12	100	16	45	45	1700	0.65	300	
MHFL1608-33NJ	33	12	100	16	45	41	1500	0.70	300	
MHFL1608-39NJ	39	12	100	17	40	48	1400	0.70	300	
MHFL1608-47NJ	47	12	100	17	35	35	1200	0.70	300	
MHFL1608-56NJ	56	12	100	17	35	30	1100	0.75	300	
MHFL1608-68NJ	68	12	100	17	30	20	900	0.85	300	
MHFL1608-82NJ	82	8	100	15	22	-	800	1.00	300	
MHFL1608-R10J	100	8	100	15	16	-	700	1.20	300	
MHFL1608-R12J	120	8	50	15	-	-	600	1.40	200	
MHFL1608-R15J	150	8	50	15	-	-	500	1.60	200	
MHFL1608-R18J	180	8	50	15	-	-	400	1.90	200	
MHFL1608-R22J	220	8	50	15	-	-	350	2.40	200	
MHFL1608-R27J	270	8	50	16	-	-	350	2.60	150	
MHFL1608-R33J	330	8	50	16	-	-	350	2.80	150	
MHFL1608-R39J	390	8	50	16	-	-	300	3.20	150	
MHFL1608-R43J	430	8	50	16	-	-	280	3.40	150	
MHFL1608-R47J	470	8	50	15	-	-	250	3.60	150	
MHFL1608-R56J	560	8	50	15	-	-	250	4.00	100	
MHFL1608-R68J	680	8	50	15	-	-	250	4.50	100	

※□: Please specify the inductance tolerance code (J=±5%, K=±10%). The product with tolerance less than ±5%, ±10% is also available. Please contact your local sales.
 ※*: The length: 1.65±0.15mm, for others: 1.60±0.15mm.



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SPECIFICATIONS

MHFL2012-D TYPE

Part Number	Inductance	Min. Quality Factor	L,Q Test Freq. L/Q	Typical Q @ Freq. (MHz)			Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current	Thickness
				100	800	1000				
Units	nH	-	MHz	-			MHz	Ω	mA	mm [inch]
Symbol	L	Q	Freq	Q			S.R.F	DCR	Ir	T
MHFL2012-1N5S	1.5±0.3	10	100	21	61	85	6000	0.10	500	0.85±0.2 [.033±.008]
MHFL2012-1N8S	1.8±0.3	10	100	20	55	80	6000	0.10	500	
MHFL2012-2N2S	2.2±0.3	10	100	20	53	75	6000	0.10	500	
MHFL2012-2N7S	2.7±0.3	12	100	18	56	70	5500	0.10	500	
MHFL2012-3N3S	3.3±0.3	12	100	18	54	65	5000	0.13	500	
MHFL2012-3N9S	3.9±0.3	12	100	18	54	60	4500	0.15	500	
MHFL2012-4N7S	4.7±0.3	12	100	18	55	65	4000	0.20	500	
MHFL2012-5N6S	5.6±0.3	15	100	18	60	66	3500	0.23	500	
MHFL2012-6N8J	6.8	15	100	18	63	68	3000	0.25	500	
MHFL2012-8N2J	8.2	15	100	20	63	70	2500	0.28	500	
MHFL2012-10NJ	10	15	100	21	60	70	2200	0.30	500	
MHFL2012-12NJ	12	15	100	20	60	70	2000	0.35	500	
MHFL2012-15NJ	15	15	100	20	63	65	1800	0.40	500	
MHFL2012-18NJ	18	15	100	22	63	60	1600	0.45	300	
MHFL2012-22NJ	22	15	100	19	60	45	1500	0.50	300	
MHFL2012-27NJ	27	15	100	19	58	38	1400	0.55	300	
MHFL2012-33NJ	33	15	100	19	55	30	1300	0.60	300	
MHFL2012-39NJ	39	15	100	19	47	26	1100	0.65	300	
MHFL2012-47NJ	47	18	100	23	43	20	1000	0.70	300	
MHFL2012-56NJ	56	18	100	22	39	10	900	0.75	300	
MHFL2012-68NJ	68	18	100	22	30	-	850	0.80	300	
MHFL2012-82NJ	82	18	100	22	-	-	800	0.90	300	
MHFL2012-R10J	100	18	100	22	-	-	700	0.90	300	
MHFL2012-R12J	120	13	50	19	-	-	600	0.95	300	
MHFL2012-R15J	150	13	50	19	-	-	550	1.20	300	
MHFL2012-R18J	180	13	50	19	-	-	500	1.30	300	
MHFL2012-R22J	220	12	50	20	-	-	400	1.50	300	
MHFL2012-R27J	270	12	50	20	-	-	350	1.80	300	
MHFL2012-R33J	330	12	50	18	-	-	300	2.00	300	
MHFL2012-R39J	390	10	50	17	-	-	250	2.00	300	
MHFL2012-R47J	470	10	50	17	-	-	200	2.00	300	

※□: Please specify the inductance tolerance code (J=±5%, K=±10%). The product with tolerance less than ±5%, ±10% is also available. Please contact your local sales.



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