

Inductors for high frequency circuits
Multilayer ceramic
MHQ-P series



MHQ0603P type



FEATURES

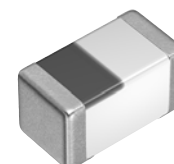
- Unique ceramic material and configuration allows for the realization of high Q characteristics that are equivalent to that of air core wound inductors.
- Multilayer method allows for a lineup with fine increments of inductance.
- Operating temperature range: -55 to +125°C

APPLICATION

- Smart phones, tablet terminals, high frequency modules, Bluetooth, W-LAN, UWB, tuners and other high frequency circuits for the mobile communication industry
- Application guides: [Smart phones/tablets](#)

PART NUMBER CONSTRUCTION

MHQ	0603	P	0N6	B	T	000
Series name	LxWxH dimensions 0.65x0.35x0.35 mm	Characteristics	Inductance (nH)	Inductance tolerance	Packaging style	Internal code



MHQ0603P type

CHARACTERISTICS SPECIFICATION TABLE

L (nH)	Tolerance	L measuring frequency (MHz)	Q min.	Q measuring frequency (MHz)	Self-resonant frequency		DC resistance		Rated current (mA)max.	Part No.
					(GHz)min.	(GHz)typ.	(Ω)max.	(Ω)typ.		
0.6	± 0.1 nH	500	—	500	10.0	20.0	0.07	0.02	1000	MHQ0603P0N6BT000
0.6	± 0.2 nH	500	—	500	10.0	20.0	0.07	0.02	1000	MHQ0603P0N6CT000
0.7	± 0.1 nH	500	—	500	10.0	20.0	0.07	0.02	1000	MHQ0603P0N7BT000
0.7	± 0.2 nH	500	—	500	10.0	20.0	0.07	0.02	1000	MHQ0603P0N7CT000
0.8	± 0.1 nH	500	—	500	10.0	20.0	0.07	0.02	1000	MHQ0603P0N8BT000
0.8	± 0.2 nH	500	—	500	10.0	20.0	0.07	0.02	1000	MHQ0603P0N8CT000
0.9	± 0.1 nH	500	—	500	10.0	18.8	0.07	0.02	1000	MHQ0603P0N9BT000
0.9	± 0.2 nH	500	—	500	10.0	18.8	0.07	0.02	1000	MHQ0603P0N9CT000
1.0	± 0.1 nH	500	—	500	10.0	19.3	0.07	0.03	1000	MHQ0603P1N0BT000
1.0	± 0.2 nH	500	—	500	10.0	19.3	0.07	0.03	1000	MHQ0603P1N0CT000
1.0	± 0.3 nH	500	—	500	10.0	19.3	0.07	0.03	1000	MHQ0603P1N0ST000
1.1	± 0.1 nH	500	—	500	10.0	19.3	0.07	0.03	1000	MHQ0603P1N1BT000
1.1	± 0.2 nH	500	—	500	10.0	19.3	0.07	0.03	1000	MHQ0603P1N1CT000
1.1	± 0.3 nH	500	—	500	10.0	19.3	0.07	0.03	1000	MHQ0603P1N1ST000
1.2	± 0.1 nH	500	—	500	10.0	20.0	0.08	0.04	1000	MHQ0603P1N2BT000
1.2	± 0.2 nH	500	—	500	10.0	20.0	0.08	0.04	1000	MHQ0603P1N2CT000
1.2	± 0.3 nH	500	—	500	10.0	20.0	0.08	0.04	1000	MHQ0603P1N2ST000
1.3	± 0.1 nH	500	—	500	10.0	20.0	0.10	0.06	800	MHQ0603P1N3BT000
1.3	± 0.2 nH	500	—	500	10.0	20.0	0.10	0.06	800	MHQ0603P1N3CT000
1.3	± 0.3 nH	500	—	500	10.0	20.0	0.10	0.06	800	MHQ0603P1N3ST000
1.4	± 0.1 nH	500	—	500	10.0	18.6	0.10	0.06	800	MHQ0603P1N4BT000
1.4	± 0.2 nH	500	—	500	10.0	18.6	0.10	0.06	800	MHQ0603P1N4CT000
1.4	± 0.3 nH	500	—	500	10.0	18.6	0.10	0.06	800	MHQ0603P1N4ST000
1.5	± 0.1 nH	500	16	500	10.0	19.5	0.10	0.05	800	MHQ0603P1N5BT000
1.5	± 0.2 nH	500	16	500	10.0	19.5	0.10	0.05	800	MHQ0603P1N5CT000
1.5	± 0.3 nH	500	16	500	10.0	19.5	0.10	0.05	800	MHQ0603P1N5ST000
1.6	± 0.1 nH	500	16	500	10.0	17.5	0.10	0.06	800	MHQ0603P1N6BT000
1.6	± 0.2 nH	500	16	500	10.0	17.5	0.10	0.06	800	MHQ0603P1N6CT000
1.6	± 0.3 nH	500	16	500	10.0	17.5	0.10	0.06	800	MHQ0603P1N6ST000
1.7	± 0.1 nH	500	16	500	10.0	16.7	0.10	0.07	800	MHQ0603P1N7BT000
1.7	± 0.2 nH	500	16	500	10.0	16.7	0.10	0.07	800	MHQ0603P1N7CT000
1.7	± 0.3 nH	500	16	500	10.0	16.7	0.10	0.07	800	MHQ0603P1N7ST000
1.8	± 0.1 nH	500	16	500	10.0	15.8	0.12	0.07	700	MHQ0603P1N8BT000
1.8	± 0.2 nH	500	16	500	10.0	15.8	0.12	0.07	700	MHQ0603P1N8CT000
1.8	± 0.3 nH	500	16	500	10.0	15.8	0.12	0.07	700	MHQ0603P1N8ST000
1.9	± 0.1 nH	500	16	500	10.0	16.1	0.12	0.08	700	MHQ0603P1N9BT000
1.9	± 0.2 nH	500	16	500	10.0	16.1	0.12	0.08	700	MHQ0603P1N9CT000
1.9	± 0.3 nH	500	16	500	10.0	16.1	0.12	0.08	700	MHQ0603P1N9ST000
2.0	± 0.1 nH	500	16	500	10.0	13.8	0.12	0.08	700	MHQ0603P2N0BT000
2.0	± 0.2 nH	500	16	500	10.0	13.8	0.12	0.08	700	MHQ0603P2N0CT000
2.0	± 0.3 nH	500	16	500	10.0	13.8	0.12	0.08	700	MHQ0603P2N0ST000
2.1	± 0.1 nH	500	16	500	10.0	12.7	0.15	0.08	700	MHQ0603P2N1BT000
2.1	± 0.2 nH	500	16	500	10.0	12.7	0.15	0.08	700	MHQ0603P2N1CT000
2.1	± 0.3 nH	500	16	500	10.0	12.7	0.15	0.08	700	MHQ0603P2N1ST000

· Short bar residual inductance =0.48nH

Measurement equipment

Measurement item	Product No.	Manufacturer
L, Q	4991A+16197A	Keysight Technologies
Self-resonant frequency	8720C	Keysight Technologies
DC resistance	Type-7561	Yokogawa

* Equivalent measurement equipment may be used.

MHQ0603P type

CHARACTERISTICS SPECIFICATION TABLE

L (nH)	Tolerance	L measuring frequency (MHz)	Q min.	Q measuring frequency (MHz)	Self-resonant frequency		DC resistance		Rated current (mA)max.	Part No.
					(GHz)min.	(GHz)typ.	(Ω)max.	(Ω)typ.		
2.2	± 0.1 nH	500	16	500	10.0	13.2	0.15	0.09	700	MHQ0603P2N2BT000
2.2	± 0.2 nH	500	16	500	10.0	13.2	0.15	0.09	700	MHQ0603P2N2CT000
2.2	± 0.3 nH	500	16	500	10.0	13.2	0.15	0.09	700	MHQ0603P2N2ST000
2.3	± 0.1 nH	500	16	500	10.0	12.5	0.15	0.08	700	MHQ0603P2N3BT000
2.3	± 0.2 nH	500	16	500	10.0	12.5	0.15	0.08	700	MHQ0603P2N3CT000
2.3	± 0.3 nH	500	16	500	10.0	12.5	0.15	0.08	700	MHQ0603P2N3ST000
2.4	± 0.1 nH	500	16	500	8.0	11.7	0.15	0.08	700	MHQ0603P2N4BT000
2.4	± 0.2 nH	500	16	500	8.0	11.7	0.15	0.08	700	MHQ0603P2N4CT000
2.4	± 0.3 nH	500	16	500	8.0	11.7	0.15	0.08	700	MHQ0603P2N4ST000
2.5	± 0.1 nH	500	16	500	8.0	11.1	0.25	0.17	500	MHQ0603P2N5BT000
2.5	± 0.2 nH	500	16	500	8.0	11.1	0.25	0.17	500	MHQ0603P2N5CT000
2.5	± 0.3 nH	500	16	500	8.0	11.1	0.25	0.17	500	MHQ0603P2N5ST000
2.6	± 0.1 nH	500	16	500	8.0	11.1	0.25	0.16	500	MHQ0603P2N6BT000
2.6	± 0.2 nH	500	16	500	8.0	11.1	0.25	0.16	500	MHQ0603P2N6CT000
2.6	± 0.3 nH	500	16	500	8.0	11.1	0.25	0.16	500	MHQ0603P2N6ST000
2.7	± 0.1 nH	500	16	500	8.0	10.5	0.25	0.16	500	MHQ0603P2N7BT000
2.7	± 0.2 nH	500	16	500	8.0	10.5	0.25	0.16	500	MHQ0603P2N7CT000
2.7	± 0.3 nH	500	16	500	8.0	10.5	0.25	0.16	500	MHQ0603P2N7ST000
2.8	± 0.1 nH	500	16	500	8.0	10.6	0.25	0.18	500	MHQ0603P2N8BT000
2.8	± 0.2 nH	500	16	500	8.0	10.6	0.25	0.18	500	MHQ0603P2N8CT000
2.8	± 0.3 nH	500	16	500	8.0	10.6	0.25	0.18	500	MHQ0603P2N8ST000
2.9	± 0.1 nH	500	16	500	8.0	10.8	0.30	0.19	450	MHQ0603P2N9BT000
2.9	± 0.2 nH	500	16	500	8.0	10.8	0.30	0.19	450	MHQ0603P2N9CT000
2.9	± 0.3 nH	500	16	500	8.0	10.8	0.30	0.19	450	MHQ0603P2N9ST000
3.0	± 0.1 nH	500	16	500	8.0	10.3	0.30	0.19	450	MHQ0603P3N0BT000
3.0	± 0.2 nH	500	16	500	8.0	10.3	0.30	0.19	450	MHQ0603P3N0CT000
3.0	± 0.3 nH	500	16	500	8.0	10.3	0.30	0.19	450	MHQ0603P3N0ST000
3.1	± 0.1 nH	500	16	500	8.0	10.5	0.30	0.19	450	MHQ0603P3N1BT000
3.1	± 0.2 nH	500	16	500	8.0	10.5	0.30	0.19	450	MHQ0603P3N1CT000
3.1	± 0.3 nH	500	16	500	8.0	10.5	0.30	0.19	450	MHQ0603P3N1ST000
3.2	± 0.1 nH	500	16	500	7.0	9.5	0.20	0.13	550	MHQ0603P3N2BT000
3.2	± 0.2 nH	500	16	500	7.0	9.5	0.20	0.13	550	MHQ0603P3N2CT000
3.2	± 0.3 nH	500	16	500	7.0	9.5	0.20	0.13	550	MHQ0603P3N2ST000
3.3	± 0.1 nH	500	16	500	7.0	9.6	0.25	0.15	500	MHQ0603P3N3BT000
3.3	± 0.2 nH	500	16	500	7.0	9.6	0.25	0.15	500	MHQ0603P3N3CT000
3.3	± 0.3 nH	500	16	500	7.0	9.6	0.25	0.15	500	MHQ0603P3N3ST000
3.4	± 0.1 nH	500	16	500	6.5	9.3	0.25	0.14	500	MHQ0603P3N4BT000
3.4	± 0.2 nH	500	16	500	6.5	9.3	0.25	0.14	500	MHQ0603P3N4CT000
3.4	± 0.3 nH	500	16	500	6.5	9.3	0.25	0.14	500	MHQ0603P3N4ST000
3.5	± 0.1 nH	500	16	500	6.5	9.5	0.25	0.17	500	MHQ0603P3N5BT000
3.5	± 0.2 nH	500	16	500	6.5	9.5	0.25	0.17	500	MHQ0603P3N5CT000
3.5	± 0.3 nH	500	16	500	6.5	9.5	0.25	0.17	500	MHQ0603P3N5ST000
3.6	± 0.1 nH	500	16	500	6.5	9.1	0.25	0.16	500	MHQ0603P3N6BT000
3.6	± 0.2 nH	500	16	500	6.5	9.1	0.25	0.16	500	MHQ0603P3N6CT000
3.6	± 0.3 nH	500	16	500	6.5	9.1	0.25	0.16	500	MHQ0603P3N6ST000

· Short bar residual inductance =0.48nH

Measurement equipment

Measurement item	Product No.	Manufacturer
L, Q	4991A+16197A	Keysight Technologies
Self-resonant frequency	8720C	Keysight Technologies
DC resistance	Type-7561	Yokogawa

* Equivalent measurement equipment may be used.

MHQ0603P type

CHARACTERISTICS SPECIFICATION TABLE

L (nH)	Tolerance	L measuring frequency (MHz)	Q min.	Q measuring frequency (MHz)	Self-resonant frequency		DC resistance		Rated current (mA)max.	Part No.
					(GHz)min.	(GHz)typ.	(Ω)max.	(Ω)typ.		
3.7	± 0.1 nH	500	16	500	6.5	9.1	0.25	0.17	450	MHQ0603P3N7BT000
3.7	± 0.2 nH	500	16	500	6.5	9.1	0.25	0.17	450	MHQ0603P3N7CT000
3.7	± 0.3 nH	500	16	500	6.5	9.1	0.25	0.17	450	MHQ0603P3N7ST000
3.8	± 0.1 nH	500	16	500	6.5	9.1	0.30	0.19	450	MHQ0603P3N8BT000
3.8	± 0.2 nH	500	16	500	6.5	9.1	0.30	0.19	450	MHQ0603P3N8CT000
3.8	± 0.3 nH	500	16	500	6.5	9.1	0.30	0.19	450	MHQ0603P3N8ST000
3.9	± 0.1 nH	500	16	500	6.5	9.2	0.35	0.23	400	MHQ0603P3N9BT000
3.9	± 0.2 nH	500	16	500	6.5	9.2	0.35	0.23	400	MHQ0603P3N9CT000
3.9	± 0.3 nH	500	16	500	6.5	9.2	0.35	0.23	400	MHQ0603P3N9ST000
4.0	± 0.1 nH	500	16	500	6.0	8.5	0.35	0.26	400	MHQ0603P4N0BT000
4.0	± 0.2 nH	500	16	500	6.0	8.5	0.35	0.26	400	MHQ0603P4N0CT000
4.0	± 0.3 nH	500	16	500	6.0	8.5	0.35	0.26	400	MHQ0603P4N0ST000
4.1	± 0.1 nH	500	16	500	6.0	8.3	0.35	0.22	400	MHQ0603P4N1BT000
4.1	± 0.2 nH	500	16	500	6.0	8.3	0.35	0.22	400	MHQ0603P4N1CT000
4.1	± 0.3 nH	500	16	500	6.0	8.3	0.35	0.22	400	MHQ0603P4N1ST000
4.2	± 0.1 nH	500	16	500	6.0	8.2	0.35	0.23	400	MHQ0603P4N2BT000
4.2	± 0.2 nH	500	16	500	6.0	8.2	0.35	0.23	400	MHQ0603P4N2CT000
4.2	± 0.3 nH	500	16	500	6.0	8.2	0.35	0.23	400	MHQ0603P4N2ST000
4.3	± 0.2 nH	500	16	500	6.0	8.2	0.35	0.23	400	MHQ0603P4N3CT000
4.3	± 0.3 nH	500	16	500	6.0	8.2	0.35	0.23	400	MHQ0603P4N3ST000
4.3	$\pm 3\%$	500	16	500	6.0	8.2	0.35	0.23	400	MHQ0603P4N3HT000
4.7	± 0.2 nH	500	16	500	5.5	7.9	0.40	0.25	350	MHQ0603P4N7CT000
4.7	± 0.3 nH	500	16	500	5.5	7.9	0.40	0.25	350	MHQ0603P4N7ST000
4.7	$\pm 3\%$	500	16	500	5.5	7.9	0.40	0.25	350	MHQ0603P4N7HT000
5.1	± 0.2 nH	500	16	500	5.5	7.8	0.40	0.24	350	MHQ0603P5N1CT000
5.1	± 0.3 nH	500	16	500	5.5	7.8	0.40	0.24	350	MHQ0603P5N1ST000
5.1	$\pm 3\%$	500	16	500	5.5	7.8	0.40	0.24	350	MHQ0603P5N1HT000
5.6	± 0.2 nH	500	16	500	5.0	7.1	0.40	0.29	350	MHQ0603P5N6CT000
5.6	± 0.3 nH	500	16	500	5.0	7.1	0.40	0.29	350	MHQ0603P5N6ST000
5.6	$\pm 3\%$	500	16	500	5.0	7.1	0.40	0.29	350	MHQ0603P5N6HT000
6.2	± 0.3 nH	500	16	500	4.0	6.7	0.70	0.52	300	MHQ0603P6N2ST000
6.2	$\pm 3\%$	500	16	500	4.0	6.7	0.70	0.52	300	MHQ0603P6N2HT000
6.8	$\pm 3\%$	500	16	500	4.0	6.8	0.70	0.53	300	MHQ0603P6N8HT000
6.8	$\pm 5\%$	500	16	500	4.0	6.8	0.70	0.53	300	MHQ0603P6N8JT000
7.5	$\pm 3\%$	500	16	500	3.8	5.7	0.50	0.37	300	MHQ0603P7N5HT000
7.5	$\pm 5\%$	500	16	500	3.8	5.7	0.50	0.37	300	MHQ0603P7N5JT000
8.2	$\pm 3\%$	500	16	500	3.8	5.4	0.90	0.64	250	MHQ0603P8N2HT000
8.2	$\pm 5\%$	500	16	500	3.8	5.4	0.90	0.64	250	MHQ0603P8N2JT000
9.1	$\pm 3\%$	500	16	500	3.8	5.5	0.90	0.62	250	MHQ0603P9N1HT000
9.1	$\pm 5\%$	500	16	500	3.8	5.5	0.90	0.62	250	MHQ0603P9N1JT000
10	$\pm 3\%$	500	16	500	3.5	5.2	1.20	0.86	240	MHQ0603P10NHT000
10	$\pm 5\%$	500	16	500	3.5	5.2	1.20	0.86	240	MHQ0603P10NJT000
11	$\pm 3\%$	500	16	500	3.2	4.6	1.30	0.89	240	MHQ0603P11NHT000
11	$\pm 5\%$	500	16	500	3.2	4.6	1.30	0.89	240	MHQ0603P11NJT000

· Short bar residual inductance =0.48nH

Measurement equipment

Measurement item	Product No.	Manufacturer
L, Q	4991A+16197A	Keysight Technologies
Self-resonant frequency	8720C	Keysight Technologies
DC resistance	Type-7561	Yokogawa

* Equivalent measurement equipment may be used.

MHQ0603P type

CHARACTERISTICS SPECIFICATION TABLE

L (nH)	Tolerance	L measuring frequency (MHz)	Q min.	Q measuring frequency (MHz)	Self-resonant frequency		DC resistance		Rated current (mA)max.	Part No.
					(GHz)min.	(GHz)typ.	(Ω)max.	(Ω)typ.		
12	±3%	500	16	500	3.2	4.6	1.40	0.77	240	MHQ0603P12NHT000
12	±5%	500	16	500	3.2	4.6	1.40	0.77	240	MHQ0603P12NJT000
13	±3%	500	16	500	3.2	4.5	1.50	1.01	180	MHQ0603P13NHT000
13	±5%	500	16	500	3.2	4.5	1.50	1.01	180	MHQ0603P13NJT000
15	±3%	500	16	500	2.8	4.2	1.50	1.05	180	MHQ0603P15NHT000
15	±5%	500	16	500	2.8	4.2	1.50	1.05	180	MHQ0603P15NJT000
16	±3%	500	16	500	2.5	4.0	1.70	1.21	180	MHQ0603P16NHT000
16	±5%	500	16	500	2.5	4.0	1.70	1.21	180	MHQ0603P16NJT000
18	±3%	500	16	500	2.4	3.7	1.70	1.21	180	MHQ0603P18NHT000
18	±5%	500	16	500	2.4	3.7	1.70	1.21	180	MHQ0603P18NJT000
20	±3%	500	16	500	2.4	3.5	2.00	1.38	160	MHQ0603P20NHT000
20	±5%	500	16	500	2.4	3.5	2.00	1.38	160	MHQ0603P20NJT000
22	±3%	500	16	500	2.2	3.3	2.00	1.40	160	MHQ0603P22NHT000
22	±5%	500	16	500	2.2	3.3	2.00	1.40	160	MHQ0603P22NJT000
24	±3%	500	16	500	2.1	3.1	2.20	1.55	160	MHQ0603P24NHT000
24	±5%	500	16	500	2.1	3.1	2.20	1.55	160	MHQ0603P24NJT000
27	±3%	500	16	500	2.0	2.9	2.20	1.55	160	MHQ0603P27NHT000
27	±5%	500	16	500	2.0	2.9	2.20	1.55	160	MHQ0603P27NJT000
30	±3%	500	16	500	1.9	2.7	2.70	1.98	160	MHQ0603P30NHT000
30	±5%	500	16	500	1.9	2.7	2.70	1.98	160	MHQ0603P30NJT000
33	±3%	300	14	300	1.8	2.5	2.80	2.06	160	MHQ0603P33NHT000
33	±5%	300	14	300	1.8	2.5	2.80	2.06	160	MHQ0603P33NJT000
36	±3%	300	14	300	1.7	2.4	2.80	2.08	160	MHQ0603P36NHT000
36	±5%	300	14	300	1.7	2.4	2.80	2.08	160	MHQ0603P36NJT000
39	±3%	300	14	300	1.6	2.3	3.00	2.24	160	MHQ0603P39NHT000
39	±5%	300	14	300	1.6	2.3	3.00	2.24	160	MHQ0603P39NJT000

· Short bar residual inductance =0.48nH

Measurement equipment

Measurement item	Product No.	Manufacturer
L, Q	4991A+16197A	Keysight Technologies
Self-resonant frequency	8720C	Keysight Technologies
DC resistance	Type-7561	Yokogawa

* Equivalent measurement equipment may be used.

MHQ0603P type

L, Q FREQUENCY CHARACTERISTICS TABLE

L(nH)typ.					Q typ.					Part No.
500MHz	800MHz	1.8GHz	2.0GHz	2.4GHz	500MHz	800MHz	1.8GHz	2.0GHz	2.4GHz	
0.6	0.6	0.6	0.6	0.6	29min.	38min.	58min.	60min.	66min.	MHQ0603P0N6BT000
0.6	0.6	0.6	0.6	0.6	29min.	38min.	58min.	60min.	66min.	MHQ0603P0N6CT000
0.7	0.7	0.7	0.7	0.7	29min.	38min.	58min.	60min.	66min.	MHQ0603P0N7BT000
0.7	0.7	0.7	0.7	0.7	29min.	38min.	58min.	60min.	66min.	MHQ0603P0N7CT000
0.8	0.8	0.8	0.8	0.8	29min.	38min.	58min.	60min.	66min.	MHQ0603P0N8BT000
0.8	0.8	0.8	0.8	0.8	29min.	38min.	58min.	60min.	66min.	MHQ0603P0N8CT000
0.9	0.9	0.9	0.9	0.9	29min.	38min.	58min.	60min.	66min.	MHQ0603P0N9BT000
0.9	0.9	0.9	0.9	0.9	29min.	38min.	58min.	60min.	66min.	MHQ0603P0N9CT000
1.0	1.0	1.0	1.0	1.0	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N0BT000
1.0	1.0	1.0	1.0	1.0	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N0CT000
1.0	1.0	1.0	1.0	1.0	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N0ST000
1.1	1.1	1.1	1.1	1.1	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N1BT000
1.1	1.1	1.1	1.1	1.1	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N1CT000
1.1	1.1	1.1	1.1	1.1	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N1ST000
1.2	1.2	1.2	1.2	1.2	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N2BT000
1.2	1.2	1.2	1.2	1.2	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N2CT000
1.2	1.2	1.2	1.2	1.2	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N2ST000
1.3	1.3	1.3	1.3	1.3	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N3BT000
1.3	1.3	1.3	1.3	1.3	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N3CT000
1.3	1.3	1.3	1.3	1.3	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N3ST000
1.4	1.4	1.4	1.4	1.4	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N4BT000
1.4	1.4	1.4	1.4	1.4	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N4CT000
1.4	1.4	1.4	1.4	1.4	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N4ST000
1.5	1.5	1.5	1.5	1.5	29	38	58	60	66	MHQ0603P1N5BT000
1.5	1.5	1.5	1.5	1.5	29	38	58	60	66	MHQ0603P1N5CT000
1.5	1.5	1.5	1.5	1.5	29	38	58	60	66	MHQ0603P1N5ST000
1.6	1.6	1.6	1.6	1.6	28	37	56	60	66	MHQ0603P1N6BT000
1.6	1.6	1.6	1.6	1.6	28	37	56	60	66	MHQ0603P1N6CT000
1.6	1.6	1.6	1.6	1.6	28	37	56	60	66	MHQ0603P1N6ST000
1.7	1.7	1.7	1.7	1.7	30	39	62	65	71	MHQ0603P1N7BT000
1.7	1.7	1.7	1.7	1.7	30	39	62	65	71	MHQ0603P1N7CT000
1.7	1.7	1.7	1.7	1.7	30	39	62	65	71	MHQ0603P1N7ST000
1.8	1.8	1.8	1.8	1.8	29	38	59	62	69	MHQ0603P1N8BT000
1.8	1.8	1.8	1.8	1.8	29	38	59	62	69	MHQ0603P1N8CT000
1.8	1.8	1.8	1.8	1.8	29	38	59	62	69	MHQ0603P1N8ST000
1.9	1.9	1.9	1.9	1.9	28	38	57	60	66	MHQ0603P1N9BT000
1.9	1.9	1.9	1.9	1.9	28	38	57	60	66	MHQ0603P1N9CT000
1.9	1.9	1.9	1.9	1.9	28	38	57	60	66	MHQ0603P1N9ST000
2.0	2.0	2.0	2.0	2.0	27	35	55	58	64	MHQ0603P2N0BT000
2.0	2.0	2.0	2.0	2.0	27	35	55	58	64	MHQ0603P2N0CT000
2.0	2.0	2.0	2.0	2.0	27	35	55	58	64	MHQ0603P2N0ST000
2.1	2.1	2.1	2.1	2.2	29	37	58	62	68	MHQ0603P2N1BT000
2.1	2.1	2.1	2.1	2.2	29	37	58	62	68	MHQ0603P2N1CT000
2.1	2.1	2.1	2.1	2.2	29	37	58	62	68	MHQ0603P2N1ST000

Measurement equipment

Product No.	Manufacturer
4291B+16193A	Keysight Technologies

* Equivalent measurement equipment may be used.

MHQ0603P type

L, Q FREQUENCY CHARACTERISTICS TABLE

L(nH)typ.					Q typ.					Part No.
500MHz	800MHz	1.8GHz	2.0GHz	2.4GHz	500MHz	800MHz	1.8GHz	2.0GHz	2.4GHz	
2.2	2.2	2.2	2.2	2.3	28	37	57	61	68	MHQ0603P2N2BT000
2.2	2.2	2.2	2.2	2.3	28	37	57	61	68	MHQ0603P2N2CT000
2.2	2.2	2.2	2.2	2.3	28	37	57	61	68	MHQ0603P2N2ST000
2.3	2.3	2.3	2.3	2.4	31	40	61	64	71	MHQ0603P2N3BT000
2.3	2.3	2.3	2.3	2.4	31	40	61	64	71	MHQ0603P2N3CT000
2.3	2.3	2.3	2.3	2.4	31	40	61	64	71	MHQ0603P2N3ST000
2.4	2.4	2.4	2.4	2.5	31	41	62	64	71	MHQ0603P2N4BT000
2.4	2.4	2.4	2.4	2.5	31	41	62	64	71	MHQ0603P2N4CT000
2.4	2.4	2.4	2.4	2.5	31	41	62	64	71	MHQ0603P2N4ST000
2.5	2.5	2.5	2.6	2.6	25	32	51	53	59	MHQ0603P2N5BT000
2.5	2.5	2.5	2.6	2.6	25	32	51	53	59	MHQ0603P2N5CT000
2.5	2.5	2.5	2.6	2.6	25	32	51	53	59	MHQ0603P2N5ST000
2.6	2.6	2.6	2.7	2.7	26	34	54	56	62	MHQ0603P2N6BT000
2.6	2.6	2.6	2.7	2.7	26	34	54	56	62	MHQ0603P2N6CT000
2.6	2.6	2.6	2.7	2.7	26	34	54	56	62	MHQ0603P2N6ST000
2.7	2.7	2.7	2.8	2.8	26	34	54	57	63	MHQ0603P2N7BT000
2.7	2.7	2.7	2.8	2.8	26	34	54	57	63	MHQ0603P2N7CT000
2.7	2.7	2.7	2.8	2.8	26	34	54	57	63	MHQ0603P2N7ST000
2.8	2.8	2.8	2.9	2.9	26	35	54	55	62	MHQ0603P2N8BT000
2.8	2.8	2.8	2.9	2.9	26	35	54	55	62	MHQ0603P2N8CT000
2.8	2.8	2.8	2.9	2.9	26	35	54	55	62	MHQ0603P2N8ST000
2.9	2.9	2.9	3.0	3.0	24	31	48	51	56	MHQ0603P2N9BT000
2.9	2.9	2.9	3.0	3.0	24	31	48	51	56	MHQ0603P2N9CT000
2.9	2.9	2.9	3.0	3.0	24	31	48	51	56	MHQ0603P2N9ST000
3.0	3.0	3.0	3.1	3.1	23	30	46	48	52	MHQ0603P3N0BT000
3.0	3.0	3.0	3.1	3.1	23	30	46	48	52	MHQ0603P3N0CT000
3.0	3.0	3.0	3.1	3.1	23	30	46	48	52	MHQ0603P3N0ST000
3.1	3.1	3.2	3.2	3.2	24	32	49	51	57	MHQ0603P3N1BT000
3.1	3.1	3.2	3.2	3.2	24	32	49	51	57	MHQ0603P3N1CT000
3.1	3.1	3.2	3.2	3.2	24	32	49	51	57	MHQ0603P3N1ST000
3.2	3.2	3.3	3.3	3.4	27	35	53	55	61	MHQ0603P3N2BT000
3.2	3.2	3.3	3.3	3.4	27	35	53	55	61	MHQ0603P3N2CT000
3.2	3.2	3.3	3.3	3.4	27	35	53	55	61	MHQ0603P3N2ST000
3.3	3.3	3.4	3.4	3.5	25	32	48	50	54	MHQ0603P3N3BT000
3.3	3.3	3.4	3.4	3.5	25	32	48	50	54	MHQ0603P3N3CT000
3.3	3.3	3.4	3.4	3.5	25	32	48	50	54	MHQ0603P3N3ST000
3.4	3.4	3.5	3.5	3.6	27	35	53	55	61	MHQ0603P3N4BT000
3.4	3.4	3.5	3.5	3.6	27	35	53	55	61	MHQ0603P3N4CT000
3.4	3.4	3.5	3.5	3.6	27	35	53	55	61	MHQ0603P3N4ST000
3.5	3.5	3.6	3.6	3.7	25	33	50	52	57	MHQ0603P3N5BT000
3.5	3.5	3.6	3.6	3.7	25	33	50	52	57	MHQ0603P3N5CT000
3.5	3.5	3.6	3.6	3.7	25	33	50	52	57	MHQ0603P3N5ST000
3.6	3.6	3.7	3.7	3.8	26	33	50	52	57	MHQ0603P3N6BT000
3.6	3.6	3.7	3.7	3.8	26	33	50	52	57	MHQ0603P3N6CT000
3.6	3.6	3.7	3.7	3.8	26	33	50	52	57	MHQ0603P3N6ST000

Measurement equipment

Product No.	Manufacturer
4291B+16193A	Keysight Technologies

* Equivalent measurement equipment may be used.

MHQ0603P type

L, Q FREQUENCY CHARACTERISTICS TABLE

L(nH)typ.					Q typ.					Part No.
500MHz	800MHz	1.8GHz	2.0GHz	2.4GHz	500MHz	800MHz	1.8GHz	2.0GHz	2.4GHz	
3.7	3.7	3.8	3.8	3.9	26	34	51	52	58	MHQ0603P3N7BT000
3.7	3.7	3.8	3.8	3.9	26	34	51	52	58	MHQ0603P3N7CT000
3.7	3.7	3.8	3.8	3.9	26	34	51	52	58	MHQ0603P3N7ST000
3.8	3.8	3.9	3.9	4.0	24	32	49	51	56	MHQ0603P3N8BT000
3.8	3.8	3.9	3.9	4.0	24	32	49	51	56	MHQ0603P3N8CT000
3.8	3.8	3.9	3.9	4.0	24	32	49	51	56	MHQ0603P3N8ST000
3.9	3.9	4.0	4.1	4.2	23	30	47	49	54	MHQ0603P3N9BT000
3.9	3.9	4.0	4.1	4.2	23	30	47	49	54	MHQ0603P3N9CT000
3.9	3.9	4.0	4.1	4.2	23	30	47	49	54	MHQ0603P3N9ST000
4.0	4.0	4.1	4.2	4.3	26	34	52	53	59	MHQ0603P4N0BT000
4.0	4.0	4.1	4.2	4.3	26	34	52	53	59	MHQ0603P4N0CT000
4.0	4.0	4.1	4.2	4.3	26	34	52	53	59	MHQ0603P4N0ST000
4.1	4.1	4.2	4.3	4.4	23	30	46	48	52	MHQ0603P4N1BT000
4.1	4.1	4.2	4.3	4.4	23	30	46	48	52	MHQ0603P4N1CT000
4.1	4.1	4.2	4.3	4.4	23	30	46	48	52	MHQ0603P4N1ST000
4.2	4.2	4.3	4.4	4.5	24	31	46	48	52	MHQ0603P4N2BT000
4.2	4.2	4.3	4.4	4.5	24	31	46	48	52	MHQ0603P4N2CT000
4.2	4.2	4.3	4.4	4.5	24	31	46	48	52	MHQ0603P4N2ST000
4.3	4.3	4.4	4.5	4.6	25	33	49	51	56	MHQ0603P4N3CT000
4.3	4.3	4.4	4.5	4.6	25	33	49	51	56	MHQ0603P4N3ST000
4.3	4.3	4.4	4.5	4.6	25	33	49	51	56	MHQ0603P4N3HT000
4.7	4.7	4.9	4.9	5.1	24	31	47	49	54	MHQ0603P4N7CT000
4.7	4.7	4.9	4.9	5.1	24	31	47	49	54	MHQ0603P4N7ST000
4.7	4.7	4.9	4.9	5.1	24	31	47	49	54	MHQ0603P4N7HT000
5.1	5.1	5.3	5.4	5.5	25	32	49	51	56	MHQ0603P5N1CT000
5.1	5.1	5.3	5.4	5.5	25	32	49	51	56	MHQ0603P5N1ST000
5.1	5.1	5.3	5.4	5.5	25	32	49	51	56	MHQ0603P5N1HT000
5.6	5.6	5.9	6.0	6.2	24	31	46	48	52	MHQ0603P5N6CT000
5.6	5.6	5.9	6.0	6.2	24	31	46	48	52	MHQ0603P5N6ST000
5.6	5.6	5.9	6.0	6.2	24	31	46	48	52	MHQ0603P5N6HT000
6.2	6.2	6.6	6.7	7.0	21	28	42	43	47	MHQ0603P6N2ST000
6.2	6.2	6.6	6.7	7.0	21	28	42	43	47	MHQ0603P6N2HT000
6.8	6.8	7.2	7.4	7.7	22	28	43	44	48	MHQ0603P6N8HT000
6.8	6.8	7.2	7.4	7.7	22	28	43	44	48	MHQ0603P6N8JT000
7.5	7.5	8.1	8.3	8.8	24	30	44	45	48	MHQ0603P7N5HT000
7.5	7.5	8.1	8.3	8.8	24	30	44	45	48	MHQ0603P7N5JT000
8.2	8.2	8.9	9.2	9.7	21	27	39	40	42	MHQ0603P8N2HT000
8.2	8.2	8.9	9.2	9.7	21	27	39	40	42	MHQ0603P8N2JT000
9.1	9.2	9.9	10.2	10.9	23	29	42	44	46	MHQ0603P9N1HT000
9.1	9.2	9.9	10.2	10.9	23	29	42	44	46	MHQ0603P9N1JT000
10.0	10.0	11.0	11.0	12.0	22	28	41	42	43	MHQ0603P10NHT000
10.0	10.0	11.0	11.0	12.0	22	28	41	42	43	MHQ0603P10NJT000
11.0	11.0	12.0	13.0	14.0	21	27	37	38	39	MHQ0603P11NHT000
11.0	11.0	12.0	13.0	14.0	21	27	37	38	39	MHQ0603P11NJT000

Measurement equipment

Product No.	Manufacturer
4291B+16193A	Keysight Technologies

* Equivalent measurement equipment may be used.

MHQ0603P type

L, Q FREQUENCY CHARACTERISTICS TABLE

L(nH)typ.		Q typ.					Part No.			
500MHz	800MHz	1.8GHz	2.0GHz	2.4GHz	500MHz	800MHz		1.8GHz	2.0GHz	2.4GHz
12.0	12.0	14.0	14.0	16.0	23	29	41	41	41	MHQ0603P12NHT000
12.0	12.0	14.0	14.0	16.0	23	29	41	41	41	MHQ0603P12NJT000
13.0	13.0	15.0	16.0	18.0	21	27	36	36	36	MHQ0603P13NHT000
13.0	13.0	15.0	16.0	18.0	21	27	36	36	36	MHQ0603P13NJT000
15.0	15.0	18.0	19.0	21.0	23	29	37	37	36	MHQ0603P15NHT000
15.0	15.0	18.0	19.0	21.0	23	29	37	37	36	MHQ0603P15NJT000
16.0	16.0	19.0	20.0	23.0	22	28	37	37	35	MHQ0603P16NHT000
16.0	16.0	19.0	20.0	23.0	22	28	37	37	35	MHQ0603P16NJT000
18.0	18.0	22.0	24.0	28.0	23	28	36	35	33	MHQ0603P18NHT000
18.0	18.0	22.0	24.0	28.0	23	28	36	35	33	MHQ0603P18NJT000
20.0	21.0	26.0	28.0	34.0	22	27	33	32	27	MHQ0603P20NHT000
20.0	21.0	26.0	28.0	34.0	22	27	33	32	27	MHQ0603P20NJT000
22.0	23.0	29.0	32.0	40.0	23	29	34	33	28	MHQ0603P22NHT000
22.0	23.0	29.0	32.0	40.0	23	29	34	33	28	MHQ0603P22NJT000
24.0	25.0	34.0	38.0	—	22	26	29	27	—	MHQ0603P24NHT000
24.0	25.0	34.0	38.0	—	22	26	29	27	—	MHQ0603P24NJT000
27.0	28.0	38.0	44.0	—	23	28	30	28	—	MHQ0603P27NHT000
27.0	28.0	38.0	44.0	—	23	28	30	28	—	MHQ0603P27NJT000
30.0	32.0	47.0	—	—	22	27	—	—	—	MHQ0603P30NHT000
30.0	32.0	47.0	—	—	22	27	—	—	—	MHQ0603P30NJT000
33.0	35.0	55.0	—	—	22	27	—	—	—	MHQ0603P33NHT000
33.0	35.0	55.0	—	—	22	27	—	—	—	MHQ0603P33NJT000
36.0	38.0	67.0	—	—	22	26	—	—	—	MHQ0603P36NHT000
36.0	38.0	67.0	—	—	22	26	—	—	—	MHQ0603P36NJT000
39.0	42.0	79.0	—	—	23	26	—	—	—	MHQ0603P39NHT000
39.0	42.0	79.0	—	—	23	26	—	—	—	MHQ0603P39NJT000

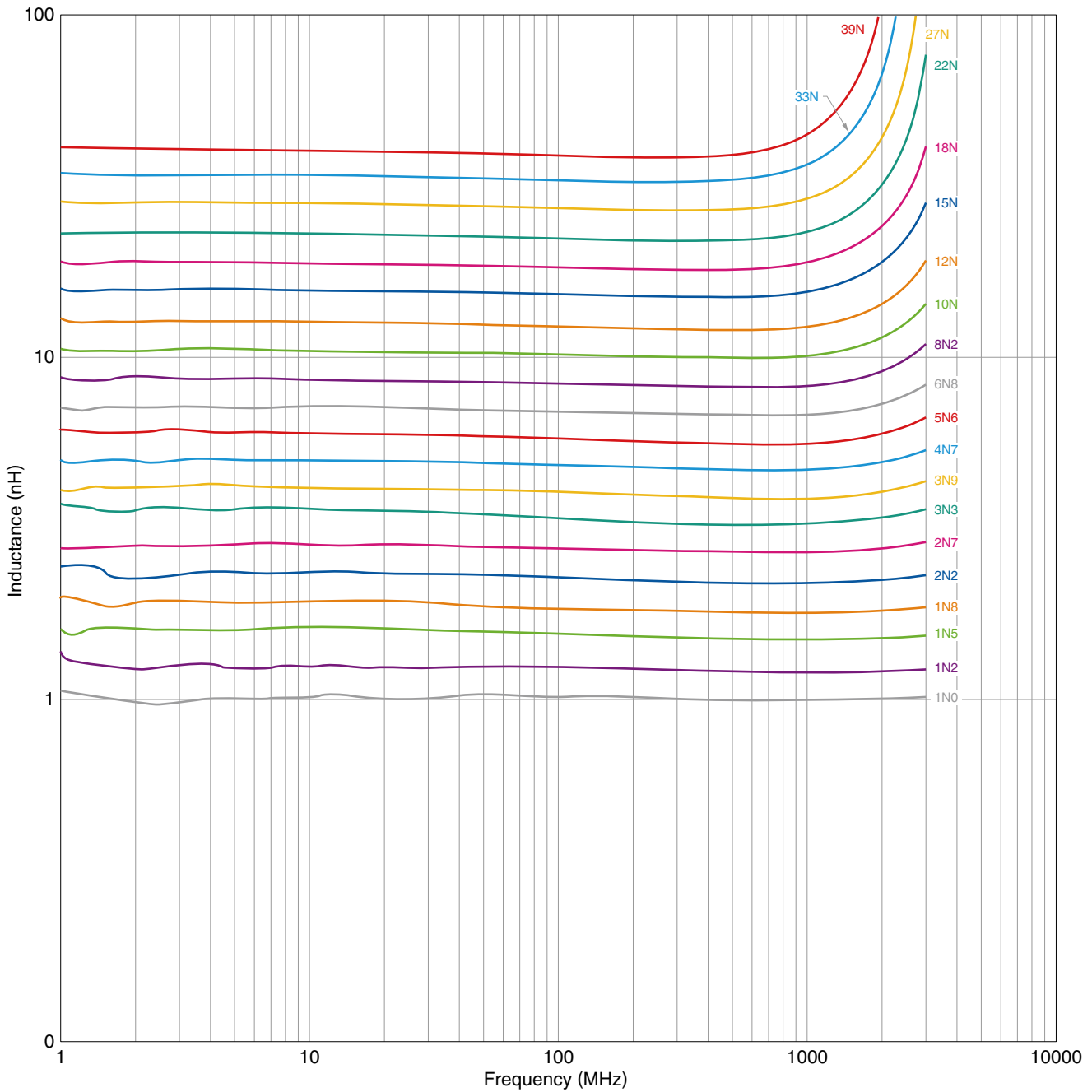
Measurement equipment

Product No.	Manufacturer
4291B+16193A	Keysight Technologies

* Equivalent measurement equipment may be used.

MHQ0603P type

■ L FREQUENCY CHARACTERISTICS (EXAMPLE)



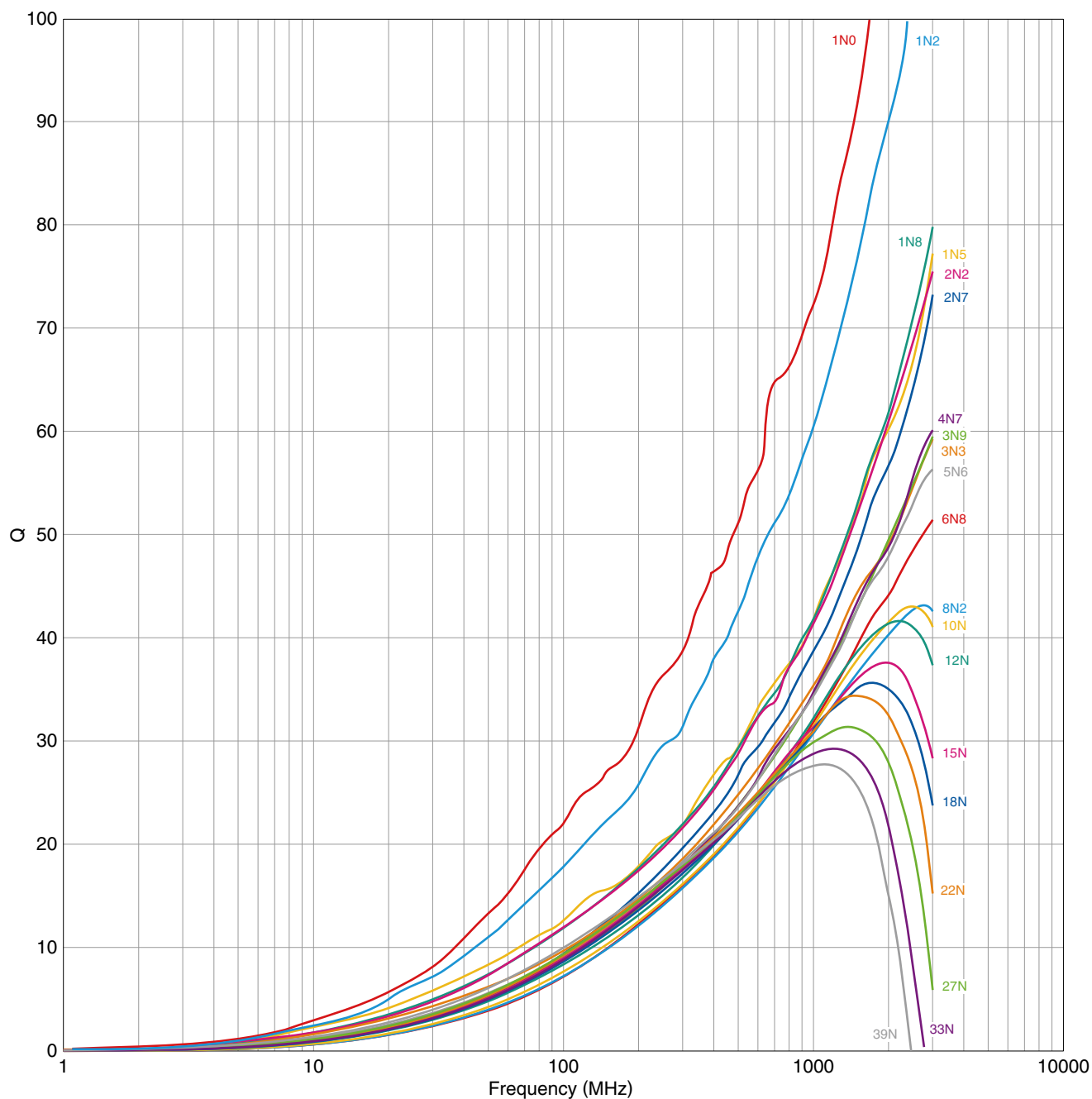
Measurement equipment

Product No.	Manufacturer
E4991+16193A	Keysight Technologies

* Equivalent measurement equipment may be used.

MHQ0603P type

Q FREQUENCY CHARACTERISTICS (EXAMPLE)



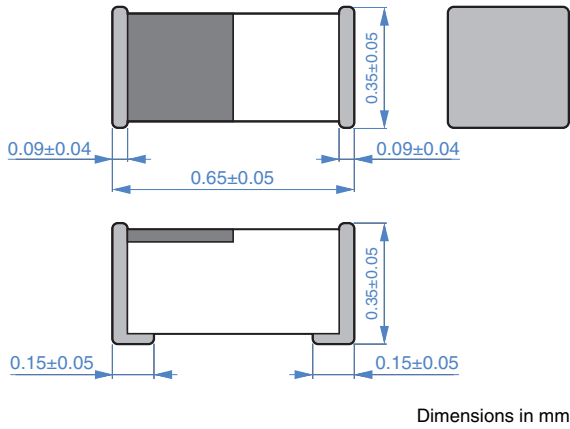
Measurement equipment

Product No.	Manufacturer
E4991+16193A	Keysight Technologies

* Equivalent measurement equipment may be used.

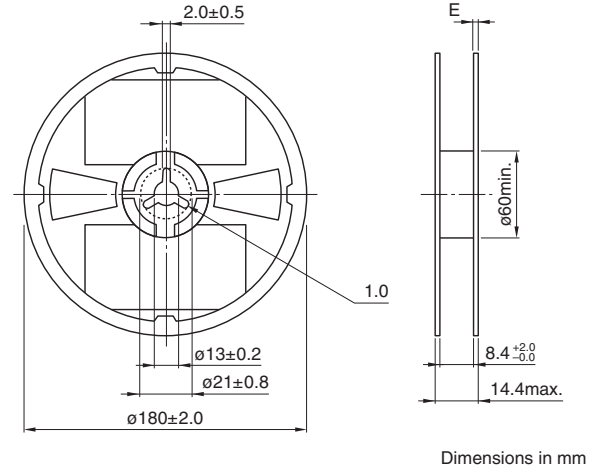
MHQ0603P type

SHAPE & DIMENSIONS

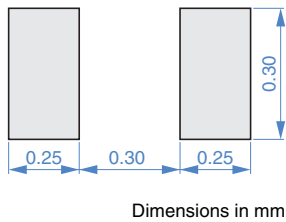


PACKAGING STYLE

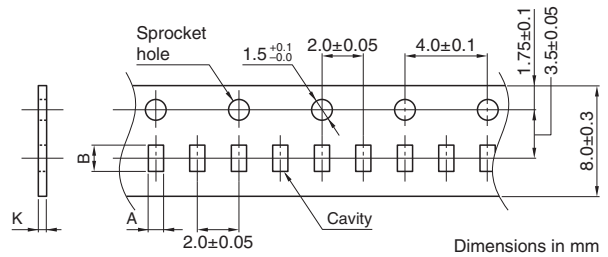
REEL DIMENSIONS



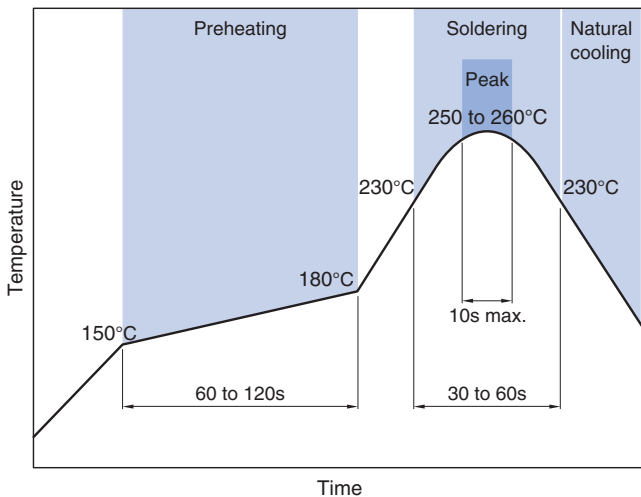
RECOMMENDED LAND PATTERN



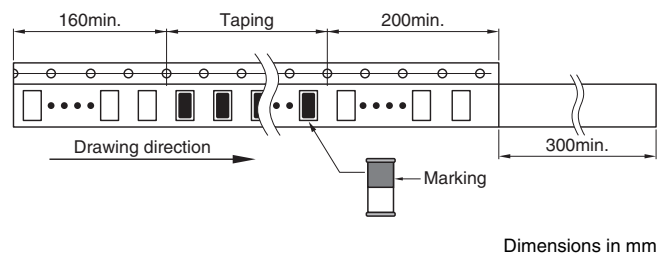
TAPE DIMENSIONS



RECOMMENDED REFLOW PROFILE



Type	A	B	K
MHQ0603P	0.44 ± 0.05	0.74 ± 0.05	0.60 max.



PACKAGE QUANTITY

Package quantity	15000 pcs/reel
------------------	----------------

TEMPERATURE RANGE, INDIVIDUAL WEIGHT

Operating temperature range	Storage temperature range*	Individual weight
$-55 \text{ to } +125^\circ\text{C}$	$-55 \text{ to } +125^\circ\text{C}$	0.2 mg

* The storage temperature range is for after the assembly.

- REMINDERS FOR USING THESE PRODUCTS -

Before using these products, be sure to request the delivery specifications.

REMINDERS

1. Introduction

This product is a multilayer inductor designed for high-frequency applications, with a lineup tailored to various purposes. By following proper handling and usage conditions, you can maximize product performance and prevent failures or safety issues.

2. General Precautions

- Do not use the product beyond its rated current. Overcurrent may cause degradation of performance or damage.
- Use the product within the operating temperature range specified in the product datasheet.
Failure to do so may lead to performance degradation or solder deterioration.
- Do not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, etc.).
- Please use a wrist strap to discharge static electricity from the human body to the ground.
- Do not expose the products to magnets or magnetic fields.
- Do not use the product beyond the specifications described in the delivery specifications or product datasheet.

3. Precautions for Mounting and Implementation

- Applying excessive external impact to the product may cause cracks or chipping.
- When embedding a printed circuit board where a chip is mounted to a set, be sure that residual stress is not given to the chip due to the overall distortion of the printed circuit board and partial distortion such as at screw tightening portions.
- For products with direction marks, the orientation of the mark may affect the set characteristics. Please verify the performance of the set in advance.
- Use the reflow soldering conditions specified in the product datasheet.
- Be sure to preheat the product before soldering.
The temperature difference between the solder and the product during preheating should be within 150°C.
- Soldering corrections after mounting should be within the range of the conditions determined in the specifications.
If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.
Some products do not support rework by manual soldering.
- Land pattern design affects mountability. If you change it from the recommended design, please verify it before use.
- Thermal and mechanical stress from the board can be affected by the type and amount of solder, potentially degrading performance.
Solder Type: Use lead-free solder SAC305.
Solder Amount: Solder with an appropriate fillet shape to avoid excessive solder.
- The original characteristics may not be achieved due to the influence of other components mounted around the product.
In such cases, please consider changing the layout or combining inductors with different winding structures.
- The storage period is within 12 months. Be sure to follow the storage conditions (temperature: 5 to 40°C, humidity: 10 to 75% RH or less).
If the storage period elapses, the soldering of the terminal electrodes may deteriorate.
- Avoid drops or strong impacts during transport, and avoid high temperatures caused by direct sunlight. Excessive heat can degrade the quality of packaging materials such as boxes, reels, and tapes.

4. Disclaimer

These precautions are based on general usage conditions.

For detailed specifications and conditions for each product, please refer to the product datasheet and delivery specifications.

Our company assumes no responsibility for any direct or indirect damage resulting from use based on these precautions.

The contents are subject to change without notice due to improvements or other reasons.

- SAFETY REMINDERS -

Please pay sufficient attention to the warnings for safe designing when using this products

REMINDERS

The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.

The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property.

If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in the each catalog, please contact us.

- | | |
|---|--|
| (1) Aerospace/aviation equipment | (8) Public information-processing equipment |
| (2) Transportation equipment (cars, electric trains, ships, etc.) | (9) Military equipment |
| (3) Medical equipment | (10) Electric heating apparatus, burning equipment |
| (4) Power-generation control equipment | (11) Disaster prevention/crime prevention equipment |
| (5) Atomic energy-related equipment | (12) Safety equipment |
| (6) Seabed equipment | (13) Other applications that are not considered general-purpose applications |
| (7) Transportation control equipment | |

When designing your equipment even for general-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.