



Inductors for high frequency circuits

Multilayer ceramic

MHQ-P series (for automotive)

MHQ0603P_{type}

MHQ0603P

0603 [0201 inch]*

* Dimensions code: JIS[EIA]

REMINDERS FOR USING THESE PRODUCTS

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

SAFETY REMINDERS

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

REMINDERS

- The storage period is less than 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.
- Do not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, etc.).
- Before soldering, be sure to preheat components.
The preheating temperature should be set so that the temperature difference between the solder temperature and chip temperature does not exceed 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.
- 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.
- Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- Carefully lay out the coil for the circuit board design of the non-magnetic shield type.
A malfunction may occur due to magnetic interference.
- Use a wrist band to discharge static electricity in your body through the grounding wire.
- Do not expose the products to magnets or magnetic fields.
- Do not use for a purpose outside of the contents regulated in the delivery specifications.
- 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
- (2) Transportation equipment (electric trains, ships, etc.)
- (3) Medical equipment
- (4) Power-generation control equipment
- (5) Atomic energy-related equipment
- (6) Seabed equipment
- (7) Transportation control equipment

- (8) Public information-processing equipment
- (9) Military equipment
- (10) Electric heating apparatus, burning equipment
- (11) Disaster prevention/crime prevention equipment
- (12) Safety equipment
- (13) Other applications that are not considered general-purpose applications

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.

Inductors for high frequency circuits

Multilayer ceramic

Product compatible with RoHS directive
Halogen-free
Compatible with lead-free solders
AEC-Q200

Overview of 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.

APPLICATION

Automotive equipment, smart phones, tablet terminals, high frequency modules (PAs, VCOs, FEMs , etc.), Bluetooth, W-LAN, UWB, tuners and other high frequency circuits for the mobile communication industry

PART NUMBER CONSTRUCTION


MHQ	0603	P	0N6	B	T	D25		
Series name	LxWxH dimensions (mm)		Inductance (nH)		Inductance tolerance		Packaging style	Internal code
	0603	0.65x0.35x0.35	P		0N6 0.6		T	D25
			1N1	1.1	C	±0.2nH		
			11N	11	S	±0.3nH		
					H	±3%		
					J	±5%		

OPERATING TEMPERATURE RANGE, PACKAGE QUANTITY, PRODUCT WEIGHT

Type	Temperature range		Package quantity (pieces/reel)	Individual weight (mg)
	Operating temperature (°C)	Storage temperature* (°C)		
MHQ0603P	-55 to +125	-55 to +125	15000	0.2

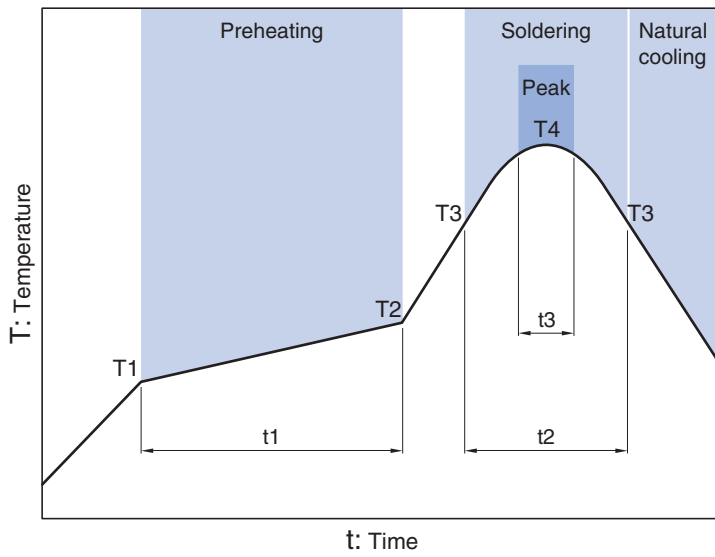
* The storage temperature range is for after the circuit board is mounted.

- RoHS Directive Compliant Product: See the following for more details.<https://product.tdk.com/info/en/environment/rohs/index.html>
- Halogen-free: Indicates that Cl content is less than 900ppm, Br content is less than 900ppm, and that the total Cl and Br content is less than 1500ppm.

 Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

MHQ0603P type

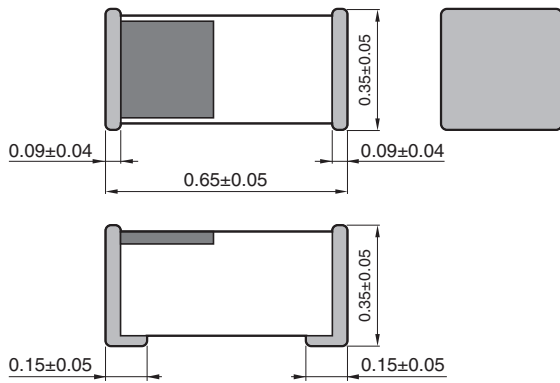
RECOMMENDED REFLOW PROFILE



Preheating			Soldering		Peak	
Temp.		Time	Temp.	Time	Temp.	Time
T1	T2	t1	T3	t2	T4	t3
150°C	180°C	60 to 120s	230°C	30 to 60s	250 to 260°C	10s max.

MHQ0603P type

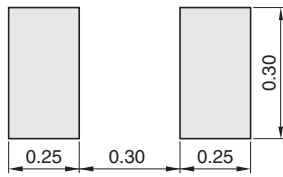
SHAPE & DIMENSIONS



Dimensions in mm



RECOMMENDED LAND PATTERN



Dimensions in mm

MHQ0603P type

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

L (nH)	L 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	MHQ0603P0N6BTD25
0.6	± 0.2 nH	500	—	500	10.0	20.0	0.07	0.02	1000	MHQ0603P0N6CTD25
0.7	± 0.1 nH	500	—	500	10.0	20.0	0.07	0.02	1000	MHQ0603P0N7BTD25
0.7	± 0.2 nH	500	—	500	10.0	20.0	0.07	0.02	1000	MHQ0603P0N7CTD25
0.8	± 0.1 nH	500	—	500	10.0	20.0	0.07	0.02	1000	MHQ0603P0N8BTD25
0.8	± 0.2 nH	500	—	500	10.0	20.0	0.07	0.02	1000	MHQ0603P0N8CTD25
0.9	± 0.1 nH	500	—	500	10.0	18.8	0.07	0.02	1000	MHQ0603P0N9BTD25
0.9	± 0.2 nH	500	—	500	10.0	18.8	0.07	0.02	1000	MHQ0603P0N9CTD25
1.0	± 0.1 nH	500	—	500	10.0	19.3	0.07	0.03	1000	MHQ0603P1N0BTD25
1.0	± 0.2 nH	500	—	500	10.0	19.3	0.07	0.03	1000	MHQ0603P1N0CTD25
1.0	± 0.3 nH	500	—	500	10.0	19.3	0.07	0.03	1000	MHQ0603P1N0STD25
1.1	± 0.1 nH	500	—	500	10.0	19.3	0.07	0.03	1000	MHQ0603P1N1BTD25
1.1	± 0.2 nH	500	—	500	10.0	19.3	0.07	0.03	1000	MHQ0603P1N1CTD25
1.1	± 0.3 nH	500	—	500	10.0	19.3	0.07	0.03	1000	MHQ0603P1N1STD25
1.2	± 0.1 nH	500	—	500	10.0	20.0	0.08	0.04	1000	MHQ0603P1N2BTD25
1.2	± 0.2 nH	500	—	500	10.0	20.0	0.08	0.04	1000	MHQ0603P1N2CTD25
1.2	± 0.3 nH	500	—	500	10.0	20.0	0.08	0.04	1000	MHQ0603P1N2STD25
1.3	± 0.1 nH	500	—	500	10.0	20.0	0.10	0.06	800	MHQ0603P1N3BTD25
1.3	± 0.2 nH	500	—	500	10.0	20.0	0.10	0.06	800	MHQ0603P1N3CTD25
1.3	± 0.3 nH	500	—	500	10.0	20.0	0.10	0.06	800	MHQ0603P1N3STD25
1.4	± 0.1 nH	500	—	500	10.0	18.6	0.10	0.06	800	MHQ0603P1N4BTD25
1.4	± 0.2 nH	500	—	500	10.0	18.6	0.10	0.06	800	MHQ0603P1N4CTD25
1.4	± 0.3 nH	500	—	500	10.0	18.6	0.10	0.06	800	MHQ0603P1N4STD25
1.5	± 0.1 nH	500	16	500	10.0	19.5	0.10	0.05	800	MHQ0603P1N5BTD25
1.5	± 0.2 nH	500	16	500	10.0	19.5	0.10	0.05	800	MHQ0603P1N5CTD25
1.5	± 0.3 nH	500	16	500	10.0	19.5	0.10	0.05	800	MHQ0603P1N5STD25
1.6	± 0.1 nH	500	16	500	10.0	17.5	0.10	0.06	800	MHQ0603P1N6BTD25
1.6	± 0.2 nH	500	16	500	10.0	17.5	0.10	0.06	800	MHQ0603P1N6CTD25
1.6	± 0.3 nH	500	16	500	10.0	17.5	0.10	0.06	800	MHQ0603P1N6STD25
1.7	± 0.1 nH	500	16	500	10.0	16.7	0.10	0.07	800	MHQ0603P1N7BTD25
1.7	± 0.2 nH	500	16	500	10.0	16.7	0.10	0.07	800	MHQ0603P1N7CTD25
1.7	± 0.3 nH	500	16	500	10.0	16.7	0.10	0.07	800	MHQ0603P1N7STD25
1.8	± 0.1 nH	500	16	500	10.0	15.8	0.12	0.07	700	MHQ0603P1N8BTD25
1.8	± 0.2 nH	500	16	500	10.0	15.8	0.12	0.07	700	MHQ0603P1N8CTD25
1.8	± 0.3 nH	500	16	500	10.0	15.8	0.12	0.07	700	MHQ0603P1N8STD25
1.9	± 0.1 nH	500	16	500	10.0	16.1	0.12	0.08	700	MHQ0603P1N9BTD25
1.9	± 0.2 nH	500	16	500	10.0	16.1	0.12	0.08	700	MHQ0603P1N9CTD25
1.9	± 0.3 nH	500	16	500	10.0	16.1	0.12	0.08	700	MHQ0603P1N9STD25
2.0	± 0.1 nH	500	16	500	10.0	13.8	0.12	0.08	700	MHQ0603P2N0BTD25
2.0	± 0.2 nH	500	16	500	10.0	13.8	0.12	0.08	700	MHQ0603P2N0CTD25
2.0	± 0.3 nH	500	16	500	10.0	13.8	0.12	0.08	700	MHQ0603P2N0STD25
2.1	± 0.1 nH	500	16	500	10.0	12.7	0.15	0.08	700	MHQ0603P2N1BTD25
2.1	± 0.2 nH	500	16	500	10.0	12.7	0.15	0.08	700	MHQ0603P2N1CTD25
2.1	± 0.3 nH	500	16	500	10.0	12.7	0.15	0.08	700	MHQ0603P2N1STD25

· 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

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

L	L measuring frequency		Q	Q measuring frequency		Self-resonant frequency		DC resistance		Rated current	Part No.
	(nH)	Tolerance		(MHz)	min.	(MHz)	(GHz)min.	(GHz)typ.	(Ω)max.		
2.2	± 0.1 nH	500	16	500	10.0	13.2	0.15	0.09	700	MHQ0603P2N2BTD25	
2.2	± 0.2 nH	500	16	500	10.0	13.2	0.15	0.09	700	MHQ0603P2N2CTD25	
2.2	± 0.3 nH	500	16	500	10.0	13.2	0.15	0.09	700	MHQ0603P2N2STD25	
2.3	± 0.1 nH	500	16	500	10.0	12.5	0.15	0.08	700	MHQ0603P2N3BTD25	
2.3	± 0.2 nH	500	16	500	10.0	12.5	0.15	0.08	700	MHQ0603P2N3CTD25	
2.3	± 0.3 nH	500	16	500	10.0	12.5	0.15	0.08	700	MHQ0603P2N3STD25	
2.4	± 0.1 nH	500	16	500	8.0	11.7	0.15	0.08	700	MHQ0603P2N4BTD25	
2.4	± 0.2 nH	500	16	500	8.0	11.7	0.15	0.08	700	MHQ0603P2N4CTD25	
2.4	± 0.3 nH	500	16	500	8.0	11.7	0.15	0.08	700	MHQ0603P2N4STD25	
2.5	± 0.1 nH	500	16	500	8.0	11.1	0.25	0.17	500	MHQ0603P2N5BTD25	
2.5	± 0.2 nH	500	16	500	8.0	11.1	0.25	0.17	500	MHQ0603P2N5CTD25	
2.5	± 0.3 nH	500	16	500	8.0	11.1	0.25	0.17	500	MHQ0603P2N5STD25	
2.6	± 0.1 nH	500	16	500	8.0	11.1	0.25	0.16	500	MHQ0603P2N6BTD25	
2.6	± 0.2 nH	500	16	500	8.0	11.1	0.25	0.16	500	MHQ0603P2N6CTD25	
2.6	± 0.3 nH	500	16	500	8.0	11.1	0.25	0.16	500	MHQ0603P2N6STD25	
2.7	± 0.1 nH	500	16	500	8.0	10.5	0.25	0.16	500	MHQ0603P2N7BTD25	
2.7	± 0.2 nH	500	16	500	8.0	10.5	0.25	0.16	500	MHQ0603P2N7CTD25	
2.7	± 0.3 nH	500	16	500	8.0	10.5	0.25	0.16	500	MHQ0603P2N7STD25	
2.8	± 0.1 nH	500	16	500	8.0	10.6	0.25	0.18	500	MHQ0603P2N8BTD25	
2.8	± 0.2 nH	500	16	500	8.0	10.6	0.25	0.18	500	MHQ0603P2N8CTD25	
2.8	± 0.3 nH	500	16	500	8.0	10.6	0.25	0.18	500	MHQ0603P2N8STD25	
2.9	± 0.1 nH	500	16	500	8.0	10.8	0.30	0.19	450	MHQ0603P2N9BTD25	
2.9	± 0.2 nH	500	16	500	8.0	10.8	0.30	0.19	450	MHQ0603P2N9CTD25	
2.9	± 0.3 nH	500	16	500	8.0	10.8	0.30	0.19	450	MHQ0603P2N9STD25	
3.0	± 0.1 nH	500	16	500	8.0	10.3	0.30	0.19	450	MHQ0603P3N0BTD25	
3.0	± 0.2 nH	500	16	500	8.0	10.3	0.30	0.19	450	MHQ0603P3N0CTD25	
3.0	± 0.3 nH	500	16	500	8.0	10.3	0.30	0.19	450	MHQ0603P3N0STD25	
3.1	± 0.1 nH	500	16	500	8.0	10.5	0.30	0.19	450	MHQ0603P3N1BTD25	
3.1	± 0.2 nH	500	16	500	8.0	10.5	0.30	0.19	450	MHQ0603P3N1CTD25	
3.1	± 0.3 nH	500	16	500	8.0	10.5	0.30	0.19	450	MHQ0603P3N1STD25	
3.2	± 0.1 nH	500	16	500	7.0	9.5	0.20	0.13	550	MHQ0603P3N2BTD25	
3.2	± 0.2 nH	500	16	500	7.0	9.5	0.20	0.13	550	MHQ0603P3N2CTD25	
3.2	± 0.3 nH	500	16	500	7.0	9.5	0.20	0.13	550	MHQ0603P3N2STD25	
3.3	± 0.1 nH	500	16	500	7.0	9.6	0.25	0.15	500	MHQ0603P3N3BTD25	
3.3	± 0.2 nH	500	16	500	7.0	9.6	0.25	0.15	500	MHQ0603P3N3CTD25	
3.3	± 0.3 nH	500	16	500	7.0	9.6	0.25	0.15	500	MHQ0603P3N3STD25	
3.4	± 0.1 nH	500	16	500	6.5	9.3	0.25	0.14	500	MHQ0603P3N4BTD25	
3.4	± 0.2 nH	500	16	500	6.5	9.3	0.25	0.14	500	MHQ0603P3N4CTD25	
3.4	± 0.3 nH	500	16	500	6.5	9.3	0.25	0.14	500	MHQ0603P3N4STD25	
3.5	± 0.1 nH	500	16	500	6.5	9.5	0.25	0.17	500	MHQ0603P3N5BTD25	
3.5	± 0.2 nH	500	16	500	6.5	9.5	0.25	0.17	500	MHQ0603P3N5CTD25	
3.5	± 0.3 nH	500	16	500	6.5	9.5	0.25	0.17	500	MHQ0603P3N5STD25	
3.6	± 0.1 nH	500	16	500	6.5	9.1	0.25	0.16	500	MHQ0603P3N6BTD25	
3.6	± 0.2 nH	500	16	500	6.5	9.1	0.25	0.16	500	MHQ0603P3N6CTD25	
3.6	± 0.3 nH	500	16	500	6.5	9.1	0.25	0.16	500	MHQ0603P3N6STD25	

· 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

ELECTRICAL CHARACTERISTICS

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	MHQ0603P3N7BTD25
3.7	± 0.2 nH	500	16	500	6.5	9.1	0.25	0.17	450	MHQ0603P3N7CTD25
3.7	± 0.3 nH	500	16	500	6.5	9.1	0.25	0.17	450	MHQ0603P3N7STD25
3.8	± 0.1 nH	500	16	500	6.5	9.1	0.30	0.19	450	MHQ0603P3N8BTD25
3.8	± 0.2 nH	500	16	500	6.5	9.1	0.30	0.19	450	MHQ0603P3N8CTD25
3.8	± 0.3 nH	500	16	500	6.5	9.1	0.30	0.19	450	MHQ0603P3N8STD25
3.9	± 0.1 nH	500	16	500	6.5	9.2	0.35	0.23	400	MHQ0603P3N9BTD25
3.9	± 0.2 nH	500	16	500	6.5	9.2	0.35	0.23	400	MHQ0603P3N9CTD25
3.9	± 0.3 nH	500	16	500	6.5	9.2	0.35	0.23	400	MHQ0603P3N9STD25
4.0	± 0.1 nH	500	16	500	6.0	8.5	0.35	0.26	400	MHQ0603P4N0BTD25
4.0	± 0.2 nH	500	16	500	6.0	8.5	0.35	0.26	400	MHQ0603P4N0CTD25
4.0	± 0.3 nH	500	16	500	6.0	8.5	0.35	0.26	400	MHQ0603P4N0STD25
4.1	± 0.1 nH	500	16	500	6.0	8.3	0.35	0.22	400	MHQ0603P4N1BTD25
4.1	± 0.2 nH	500	16	500	6.0	8.3	0.35	0.22	400	MHQ0603P4N1CTD25
4.1	± 0.3 nH	500	16	500	6.0	8.3	0.35	0.22	400	MHQ0603P4N1STD25
4.2	± 0.1 nH	500	16	500	6.0	8.2	0.35	0.23	400	MHQ0603P4N2BTD25
4.2	± 0.2 nH	500	16	500	6.0	8.2	0.35	0.23	400	MHQ0603P4N2CTD25
4.2	± 0.3 nH	500	16	500	6.0	8.2	0.35	0.23	400	MHQ0603P4N2STD25
4.3	± 0.2 nH	500	16	500	6.0	8.2	0.35	0.23	400	MHQ0603P4N3CTD25
4.3	± 0.3 nH	500	16	500	6.0	8.2	0.35	0.23	400	MHQ0603P4N3STD25
4.3	$\pm 3\%$	500	16	500	6.0	8.2	0.35	0.23	400	MHQ0603P4N3HTD25
4.7	± 0.2 nH	500	16	500	5.5	7.9	0.40	0.25	350	MHQ0603P4N7CTD25
4.7	± 0.3 nH	500	16	500	5.5	7.9	0.40	0.25	350	MHQ0603P4N7STD25
4.7	$\pm 3\%$	500	16	500	5.5	7.9	0.40	0.25	350	MHQ0603P4N7HTD25
5.1	± 0.2 nH	500	16	500	5.5	7.8	0.40	0.24	350	MHQ0603P5N1CTD25
5.1	± 0.3 nH	500	16	500	5.5	7.8	0.40	0.24	350	MHQ0603P5N1STD25
5.1	$\pm 3\%$	500	16	500	5.5	7.8	0.40	0.24	350	MHQ0603P5N1HTD25
5.6	± 0.2 nH	500	16	500	5.0	7.1	0.40	0.29	350	MHQ0603P5N6CTD25
5.6	± 0.3 nH	500	16	500	5.0	7.1	0.40	0.29	350	MHQ0603P5N6STD25
5.6	$\pm 3\%$	500	16	500	5.0	7.1	0.40	0.29	350	MHQ0603P5N6HTD25
6.2	± 0.3 nH	500	16	500	4.0	6.7	0.70	0.52	300	MHQ0603P6N2STD25
6.2	$\pm 3\%$	500	16	500	4.0	6.7	0.70	0.52	300	MHQ0603P6N2HTD25
6.8	$\pm 3\%$	500	16	500	4.0	6.8	0.70	0.53	300	MHQ0603P6N8HTD25
6.8	$\pm 5\%$	500	16	500	4.0	6.8	0.70	0.53	300	MHQ0603P6N8JTD25
7.5	$\pm 3\%$	500	16	500	3.8	5.7	0.50	0.37	300	MHQ0603P7N5HTD25
7.5	$\pm 5\%$	500	16	500	3.8	5.7	0.50	0.37	300	MHQ0603P7N5JTD25
8.2	$\pm 3\%$	500	16	500	3.8	5.4	0.90	0.64	250	MHQ0603P8N2HTD25
8.2	$\pm 5\%$	500	16	500	3.8	5.4	0.90	0.64	250	MHQ0603P8N2JTD25
9.1	$\pm 3\%$	500	16	500	3.8	5.5	0.90	0.62	250	MHQ0603P9N1HTD25
9.1	$\pm 5\%$	500	16	500	3.8	5.5	0.90	0.62	250	MHQ0603P9N1JTD25
10	$\pm 3\%$	500	16	500	3.5	5.2	1.20	0.86	240	MHQ0603P10NHTD25
10	$\pm 5\%$	500	16	500	3.5	5.2	1.20	0.86	240	MHQ0603P10NJTD25
11	$\pm 3\%$	500	16	500	3.2	4.6	1.30	0.89	240	MHQ0603P11NHTD25
11	$\pm 5\%$	500	16	500	3.2	4.6	1.30	0.89	240	MHQ0603P11NJTD25

· 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.

Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.
Please note that the contents may change without any prior notice due to reasons such as upgrading.

MHQ0603P type

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

L	L measuring frequency		Q	Q measuring frequency		Self-resonant frequency		DC resistance		Rated current	Part No.
	(nH)	Tolerance		(MHz)	min.	(MHz)	(GHz)min.	(GHz)typ.	(Ω)max.		
12	$\pm 3\%$	500	16	500	3.2	4.6	1.40	0.77	240	MHQ0603P12NHTD25	
12	$\pm 5\%$	500	16	500	3.2	4.6	1.40	0.77	240	MHQ0603P12NJTD25	
13	$\pm 3\%$	500	16	500	3.2	4.5	1.50	1.01	180	MHQ0603P13NHTD25	
13	$\pm 5\%$	500	16	500	3.2	4.5	1.50	1.01	180	MHQ0603P13NJTD25	
15	$\pm 3\%$	500	16	500	2.8	4.2	1.50	1.05	180	MHQ0603P15NHTD25	
15	$\pm 5\%$	500	16	500	2.8	4.2	1.50	1.05	180	MHQ0603P15NJTD25	
16	$\pm 3\%$	500	16	500	2.5	4.0	1.70	1.21	180	MHQ0603P16NHTD25	
16	$\pm 5\%$	500	16	500	2.5	4.0	1.70	1.21	180	MHQ0603P16NJTD25	
18	$\pm 3\%$	500	16	500	2.4	3.7	1.70	1.21	180	MHQ0603P18NHTD25	
18	$\pm 5\%$	500	16	500	2.4	3.7	1.70	1.21	180	MHQ0603P18NJTD25	
20	$\pm 3\%$	500	16	500	2.4	3.5	2.00	1.38	160	MHQ0603P20NHTD25	
20	$\pm 5\%$	500	16	500	2.4	3.5	2.00	1.38	160	MHQ0603P20NJTD25	
22	$\pm 3\%$	500	16	500	2.2	3.3	2.00	1.40	160	MHQ0603P22NHTD25	
22	$\pm 5\%$	500	16	500	2.2	3.3	2.00	1.40	160	MHQ0603P22NJTD25	
24	$\pm 3\%$	500	16	500	2.1	3.1	2.20	1.55	160	MHQ0603P24NHTD25	
24	$\pm 5\%$	500	16	500	2.1	3.1	2.20	1.55	160	MHQ0603P24NJTD25	
27	$\pm 3\%$	500	16	500	2.0	2.9	2.20	1.55	160	MHQ0603P27NHTD25	
27	$\pm 5\%$	500	16	500	2.0	2.9	2.20	1.55	160	MHQ0603P27NJTD25	
30	$\pm 3\%$	500	16	500	1.9	2.7	2.70	1.98	160	MHQ0603P30NHTD25	
30	$\pm 5\%$	500	16	500	1.9	2.7	2.70	1.98	160	MHQ0603P30NJTD25	
33	$\pm 3\%$	300	14	300	1.8	2.5	2.80	2.06	160	MHQ0603P33NHTD25	
33	$\pm 5\%$	300	14	300	1.8	2.5	2.80	2.06	160	MHQ0603P33NJTD25	
36	$\pm 3\%$	300	14	300	1.7	2.4	2.80	2.08	160	MHQ0603P36NHTD25	
36	$\pm 5\%$	300	14	300	1.7	2.4	2.80	2.08	160	MHQ0603P36NJTD25	
39	$\pm 3\%$	300	14	300	1.6	2.3	3.00	2.24	160	MHQ0603P39NHTD25	
39	$\pm 5\%$	300	14	300	1.6	2.3	3.00	2.24	160	MHQ0603P39NJTD25	

· 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

ELECTRICAL CHARACTERISTICS

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.	MHQ0603P0N6BTD25
0.6	0.6	0.6	0.6	0.6	29min.	38min.	58min.	60min.	66min.	MHQ0603P0N6CTD25
0.7	0.7	0.7	0.7	0.7	29min.	38min.	58min.	60min.	66min.	MHQ0603P0N7BTD25
0.7	0.7	0.7	0.7	0.7	29min.	38min.	58min.	60min.	66min.	MHQ0603P0N7CTD25
0.8	0.8	0.8	0.8	0.8	29min.	38min.	58min.	60min.	66min.	MHQ0603P0N8BTD25
0.8	0.8	0.8	0.8	0.8	29min.	38min.	58min.	60min.	66min.	MHQ0603P0N8CTD25
0.9	0.9	0.9	0.9	0.9	29min.	38min.	58min.	60min.	66min.	MHQ0603P0N9BTD25
0.9	0.9	0.9	0.9	0.9	29min.	38min.	58min.	60min.	66min.	MHQ0603P0N9CTD25
1.0	1.0	1.0	1.0	1.0	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N0BTD25
1.0	1.0	1.0	1.0	1.0	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N0CTD25
1.0	1.0	1.0	1.0	1.0	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N0STD25
1.1	1.1	1.1	1.1	1.1	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N1BTD25
1.1	1.1	1.1	1.1	1.1	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N1CTD25
1.1	1.1	1.1	1.1	1.1	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N1STD25
1.2	1.2	1.2	1.2	1.2	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N2BTD25
1.2	1.2	1.2	1.2	1.2	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N2CTD25
1.2	1.2	1.2	1.2	1.2	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N2STD25
1.3	1.3	1.3	1.3	1.3	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N3BTD25
1.3	1.3	1.3	1.3	1.3	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N3CTD25
1.3	1.3	1.3	1.3	1.3	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N3STD25
1.4	1.4	1.4	1.4	1.4	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N4BTD25
1.4	1.4	1.4	1.4	1.4	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N4CTD25
1.4	1.4	1.4	1.4	1.4	29min.	38min.	58min.	60min.	66min.	MHQ0603P1N4STD25
1.5	1.5	1.5	1.5	1.5	29	38	58	60	66	MHQ0603P1N5BTD25
1.5	1.5	1.5	1.5	1.5	29	38	58	60	66	MHQ0603P1N5CTD25
1.5	1.5	1.5	1.5	1.5	29	38	58	60	66	MHQ0603P1N5STD25
1.6	1.6	1.6	1.6	1.6	28	37	56	60	66	MHQ0603P1N6BTD25
1.6	1.6	1.6	1.6	1.6	28	37	56	60	66	MHQ0603P1N6CTD25
1.6	1.6	1.6	1.6	1.6	28	37	56	60	66	MHQ0603P1N6STD25
1.7	1.7	1.7	1.7	1.7	30	39	62	65	71	MHQ0603P1N7BTD25
1.7	1.7	1.7	1.7	1.7	30	39	62	65	71	MHQ0603P1N7CTD25
1.7	1.7	1.7	1.7	1.7	30	39	62	65	71	MHQ0603P1N7STD25
1.8	1.8	1.8	1.8	1.8	29	38	59	62	69	MHQ0603P1N8BTD25
1.8	1.8	1.8	1.8	1.8	29	38	59	62	69	MHQ0603P1N8CTD25
1.8	1.8	1.8	1.8	1.8	29	38	59	62	69	MHQ0603P1N8STD25
1.9	1.9	1.9	1.9	1.9	28	38	57	60	66	MHQ0603P1N9BTD25
1.9	1.9	1.9	1.9	1.9	28	38	57	60	66	MHQ0603P1N9CTD25
1.9	1.9	1.9	1.9	1.9	28	38	57	60	66	MHQ0603P1N9STD25
2.0	2.0	2.0	2.0	2.0	27	35	55	58	64	MHQ0603P2N0BTD25
2.0	2.0	2.0	2.0	2.0	27	35	55	58	64	MHQ0603P2N0CTD25
2.0	2.0	2.0	2.0	2.0	27	35	55	58	64	MHQ0603P2N0STD25
2.1	2.1	2.1	2.1	2.2	29	37	58	62	68	MHQ0603P2N1BTD25
2.1	2.1	2.1	2.1	2.2	29	37	58	62	68	MHQ0603P2N1CTD25
2.1	2.1	2.1	2.1	2.2	29	37	58	62	68	MHQ0603P2N1STD25

○ Measurement equipment

Product No.	Manufacturer
4291B+16193A	Keysight Technologies

* Equivalent measurement equipment may be used.

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

MHQ0603P type

ELECTRICAL CHARACTERISTICS

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	MHQ0603P2N2BTD25
2.2	2.2	2.2	2.2	2.3	28	37	57	61	68	MHQ0603P2N2CTD25
2.2	2.2	2.2	2.2	2.3	28	37	57	61	68	MHQ0603P2N2STD25
2.3	2.3	2.3	2.3	2.4	31	40	61	64	71	MHQ0603P2N3BTD25
2.3	2.3	2.3	2.3	2.4	31	40	61	64	71	MHQ0603P2N3CTD25
2.3	2.3	2.3	2.3	2.4	31	40	61	64	71	MHQ0603P2N3STD25
2.4	2.4	2.4	2.4	2.5	31	41	62	64	71	MHQ0603P2N4BTD25
2.4	2.4	2.4	2.4	2.5	31	41	62	64	71	MHQ0603P2N4CTD25
2.4	2.4	2.4	2.4	2.5	31	41	62	64	71	MHQ0603P2N4STD25
2.5	2.5	2.5	2.6	2.6	25	32	51	53	59	MHQ0603P2N5BTD25
2.5	2.5	2.5	2.6	2.6	25	32	51	53	59	MHQ0603P2N5CTD25
2.5	2.5	2.5	2.6	2.6	25	32	51	53	59	MHQ0603P2N5STD25
2.6	2.6	2.6	2.7	2.7	26	34	54	56	62	MHQ0603P2N6BTD25
2.6	2.6	2.6	2.7	2.7	26	34	54	56	62	MHQ0603P2N6CTD25
2.6	2.6	2.6	2.7	2.7	26	34	54	56	62	MHQ0603P2N6STD25
2.7	2.7	2.7	2.8	2.8	26	34	54	57	63	MHQ0603P2N7BTD25
2.7	2.7	2.7	2.8	2.8	26	34	54	57	63	MHQ0603P2N7CTD25
2.7	2.7	2.7	2.8	2.8	26	34	54	57	63	MHQ0603P2N7STD25
2.8	2.8	2.8	2.9	2.9	26	35	54	55	62	MHQ0603P2N8BTD25
2.8	2.8	2.8	2.9	2.9	26	35	54	55	62	MHQ0603P2N8CTD25
2.8	2.8	2.8	2.9	2.9	26	35	54	55	62	MHQ0603P2N8STD25
2.9	2.9	2.9	3.0	3.0	24	31	48	51	56	MHQ0603P2N9BTD25
2.9	2.9	2.9	3.0	3.0	24	31	48	51	56	MHQ0603P2N9CTD25
2.9	2.9	2.9	3.0	3.0	24	31	48	51	56	MHQ0603P2N9STD25
3.0	3.0	3.0	3.1	3.1	23	30	46	48	52	MHQ0603P3N0BTD25
3.0	3.0	3.0	3.1	3.1	23	30	46	48	52	MHQ0603P3N0CTD25
3.0	3.0	3.0	3.1	3.1	23	30	46	48	52	MHQ0603P3N0STD25
3.1	3.1	3.2	3.2	3.2	24	32	49	51	57	MHQ0603P3N1BTD25
3.1	3.1	3.2	3.2	3.2	24	32	49	51	57	MHQ0603P3N1CTD25
3.1	3.1	3.2	3.2	3.2	24	32	49	51	57	MHQ0603P3N1STD25
3.2	3.2	3.3	3.3	3.4	27	35	53	55	61	MHQ0603P3N2BTD25
3.2	3.2	3.3	3.3	3.4	27	35	53	55	61	MHQ0603P3N2CTD25
3.2	3.2	3.3	3.3	3.4	27	35	53	55	61	MHQ0603P3N2STD25
3.3	3.3	3.4	3.4	3.5	25	32	48	50	54	MHQ0603P3N3BTD25
3.3	3.3	3.4	3.4	3.5	25	32	48	50	54	MHQ0603P3N3CTD25
3.3	3.3	3.4	3.4	3.5	25	32	48	50	54	MHQ0603P3N3STD25
3.4	3.4	3.5	3.5	3.6	27	35	53	55	61	MHQ0603P3N4BTD25
3.4	3.4	3.5	3.5	3.6	27	35	53	55	61	MHQ0603P3N4CTD25
3.4	3.4	3.5	3.5	3.6	27	35	53	55	61	MHQ0603P3N4STD25
3.5	3.5	3.6	3.6	3.7	25	33	50	52	57	MHQ0603P3N5BTD25
3.5	3.5	3.6	3.6	3.7	25	33	50	52	57	MHQ0603P3N5CTD25
3.5	3.5	3.6	3.6	3.7	25	33	50	52	57	MHQ0603P3N5STD25
3.6	3.6	3.7	3.7	3.8	26	33	50	52	57	MHQ0603P3N6BTD25
3.6	3.6	3.7	3.7	3.8	26	33	50	52	57	MHQ0603P3N6CTD25
3.6	3.6	3.7	3.7	3.8	26	33	50	52	57	MHQ0603P3N6STD25

○ Measurement equipment

Product No.	Manufacturer
4291B+16193A	Keysight Technologies

* Equivalent measurement equipment may be used.

MHQ0603P type

ELECTRICAL CHARACTERISTICS

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	MHQ0603P3N7BTD25
3.7	3.7	3.8	3.8	3.9	26	34	51	52	58	MHQ0603P3N7CTD25
3.7	3.7	3.8	3.8	3.9	26	34	51	52	58	MHQ0603P3N7STD25
3.8	3.8	3.9	3.9	4.0	24	32	49	51	56	MHQ0603P3N8BTD25
3.8	3.8	3.9	3.9	4.0	24	32	49	51	56	MHQ0603P3N8CTD25
3.8	3.8	3.9	3.9	4.0	24	32	49	51	56	MHQ0603P3N8STD25
3.9	3.9	4.0	4.1	4.2	23	30	47	49	54	MHQ0603P3N9BTD25
3.9	3.9	4.0	4.1	4.2	23	30	47	49	54	MHQ0603P3N9CTD25
3.9	3.9	4.0	4.1	4.2	23	30	47	49	54	MHQ0603P3N9STD25
4.0	4.0	4.1	4.2	4.3	26	34	52	53	59	MHQ0603P4N0BTD25
4.0	4.0	4.1	4.2	4.3	26	34	52	53	59	MHQ0603P4N0CTD25
4.0	4.0	4.1	4.2	4.3	26	34	52	53	59	MHQ0603P4N0STD25
4.1	4.1	4.2	4.3	4.4	23	30	46	48	52	MHQ0603P4N1BTD25
4.1	4.1	4.2	4.3	4.4	23	30	46	48	52	MHQ0603P4N1CTD25
4.1	4.1	4.2	4.3	4.4	23	30	46	48	52	MHQ0603P4N1STD25
4.2	4.2	4.3	4.4	4.5	24	31	46	48	52	MHQ0603P4N2BTD25
4.2	4.2	4.3	4.4	4.5	24	31	46	48	52	MHQ0603P4N2CTD25
4.2	4.2	4.3	4.4	4.5	24	31	46	48	52	MHQ0603P4N2STD25
4.3	4.3	4.4	4.5	4.6	25	33	49	51	56	MHQ0603P4N3CTD25
4.3	4.3	4.4	4.5	4.6	25	33	49	51	56	MHQ0603P4N3STD25
4.3	4.3	4.4	4.5	4.6	25	33	49	51	56	MHQ0603P4N3HTD25
4.7	4.7	4.9	4.9	5.1	24	31	47	49	54	MHQ0603P4N7CTD25
4.7	4.7	4.9	4.9	5.1	24	31	47	49	54	MHQ0603P4N7STD25
4.7	4.7	4.9	4.9	5.1	24	31	47	49	54	MHQ0603P4N7HTD25
5.1	5.1	5.3	5.4	5.5	25	32	49	51	56	MHQ0603P5N1CTD25
5.1	5.1	5.3	5.4	5.5	25	32	49	51	56	MHQ0603P5N1STD25
5.1	5.1	5.3	5.4	5.5	25	32	49	51	56	MHQ0603P5N1HTD25
5.6	5.6	5.9	6.0	6.2	24	31	46	48	52	MHQ0603P5N6CTD25
5.6	5.6	5.9	6.0	6.2	24	31	46	48	52	MHQ0603P5N6STD25
5.6	5.6	5.9	6.0	6.2	24	31	46	48	52	MHQ0603P5N6HTD25
6.2	6.2	6.6	6.7	7.0	21	28	42	43	47	MHQ0603P6N2STD25
6.2	6.2	6.6	6.7	7.0	21	28	42	43	47	MHQ0603P6N2HTD25
6.8	6.8	7.2	7.4	7.7	22	28	43	44	48	MHQ0603P6N8HTD25
6.8	6.8	7.2	7.4	7.7	22	28	43	44	48	MHQ0603P6N8JTD25
7.5	7.5	8.1	8.3	8.8	24	30	44	45	48	MHQ0603P7N5HTD25
7.5	7.5	8.1	8.3	8.8	24	30	44	45	48	MHQ0603P7N5JTD25
8.2	8.2	8.9	9.2	9.7	21	27	39	40	42	MHQ0603P8N2HTD25
8.2	8.2	8.9	9.2	9.7	21	27	39	40	42	MHQ0603P8N2JTD25
9.1	9.2	9.9	10.2	10.9	23	29	42	44	46	MHQ0603P9N1HTD25
9.1	9.2	9.9	10.2	10.9	23	29	42	44	46	MHQ0603P9N1JTD25
10.0	10.0	11.0	11.0	12.0	22	28	41	42	43	MHQ0603P10NHTD25
10.0	10.0	11.0	11.0	12.0	22	28	41	42	43	MHQ0603P10NJTD25
11.0	11.0	12.0	13.0	14.0	21	27	37	38	39	MHQ0603P11NHTD25
11.0	11.0	12.0	13.0	14.0	21	27	37	38	39	MHQ0603P11NJTD25

○ Measurement equipment

Product No.	Manufacturer
4291B+16193A	Keysight Technologies

* Equivalent measurement equipment may be used.

MHQ0603P type

ELECTRICAL CHARACTERISTICS

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	MHQ0603P12NHTD25
12.0	12.0	14.0	14.0	16.0	23	29	41	41	41	MHQ0603P12NJTD25
13.0	13.0	15.0	16.0	18.0	21	27	36	36	36	MHQ0603P13NHTD25
13.0	13.0	15.0	16.0	18.0	21	27	36	36	36	MHQ0603P13NJTD25
15.0	15.0	18.0	19.0	21.0	23	29	37	37	36	MHQ0603P15NHTD25
15.0	15.0	18.0	19.0	21.0	23	29	37	37	36	MHQ0603P15NJTD25
16.0	16.0	19.0	20.0	23.0	22	28	37	37	35	MHQ0603P16NHTD25
16.0	16.0	19.0	20.0	23.0	22	28	37	37	35	MHQ0603P16NJTD25
18.0	18.0	22.0	24.0	28.0	23	28	36	35	33	MHQ0603P18NHTD25
18.0	18.0	22.0	24.0	28.0	23	28	36	35	33	MHQ0603P18NJTD25
20.0	21.0	26.0	28.0	34.0	22	27	33	32	27	MHQ0603P20NHTD25
20.0	21.0	26.0	28.0	34.0	22	27	33	32	27	MHQ0603P20NJTD25
22.0	23.0	29.0	32.0	40.0	23	29	34	33	28	MHQ0603P22NHTD25
22.0	23.0	29.0	32.0	40.0	23	29	34	33	28	MHQ0603P22NJTD25
24.0	25.0	34.0	38.0	—	22	26	29	27	—	MHQ0603P24NHTD25
24.0	25.0	34.0	38.0	—	22	26	29	27	—	MHQ0603P24NJTD25
27.0	28.0	38.0	44.0	—	23	28	30	28	—	MHQ0603P27NHTD25
27.0	28.0	38.0	44.0	—	23	28	30	28	—	MHQ0603P27NJTD25
30.0	32.0	47.0	—	—	22	27	—	—	—	MHQ0603P30NHTD25
30.0	32.0	47.0	—	—	22	27	—	—	—	MHQ0603P30NJTD25
33.0	35.0	55.0	—	—	22	27	—	—	—	MHQ0603P33NHTD25
33.0	35.0	55.0	—	—	22	27	—	—	—	MHQ0603P33NJTD25
36.0	38.0	67.0	—	—	22	26	—	—	—	MHQ0603P36NHTD25
36.0	38.0	67.0	—	—	22	26	—	—	—	MHQ0603P36NJTD25
39.0	42.0	79.0	—	—	23	26	—	—	—	MHQ0603P39NHTD25
39.0	42.0	79.0	—	—	23	26	—	—	—	MHQ0603P39NJTD25

○ Measurement equipment

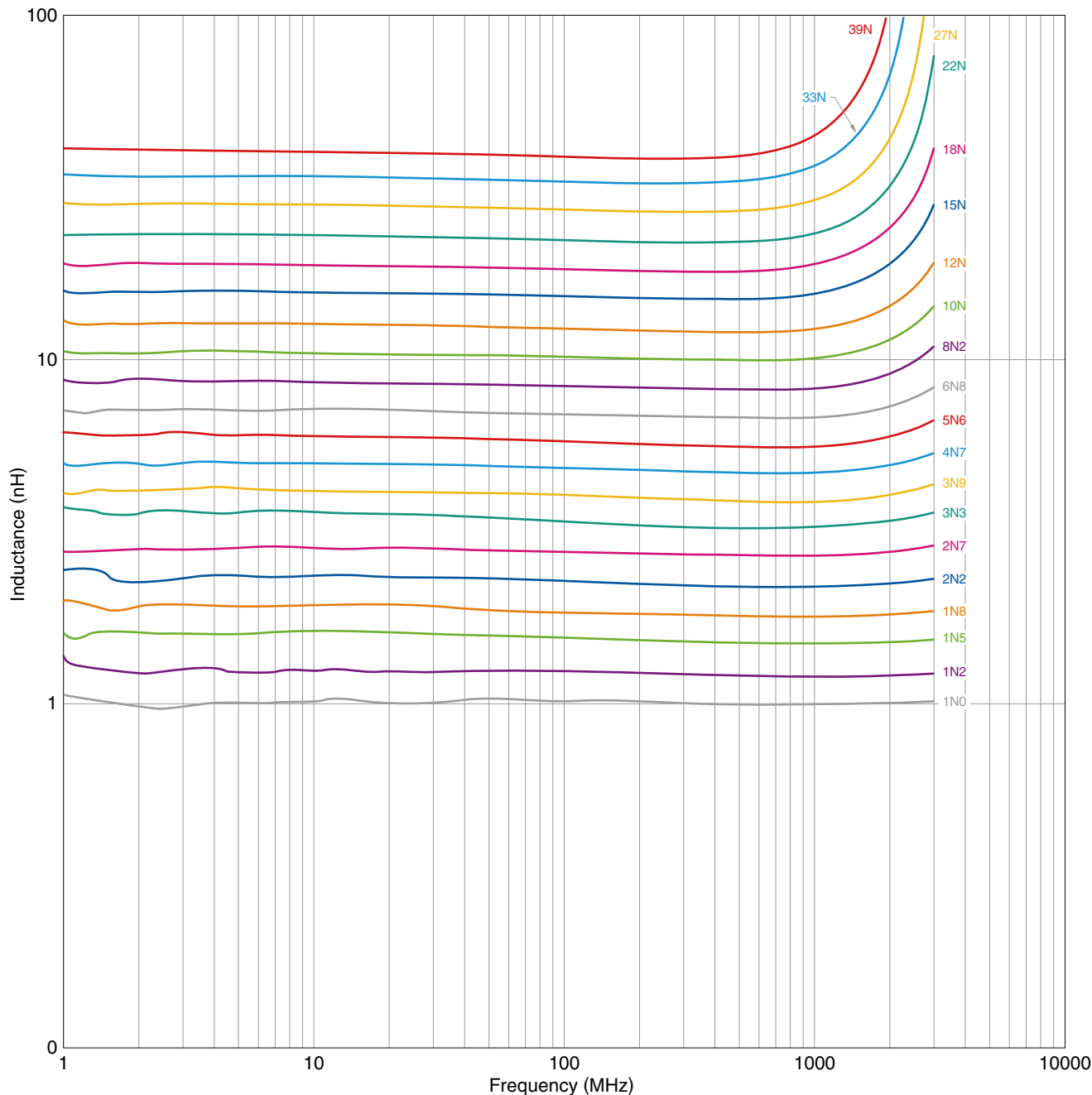
Product No.	Manufacturer
4291B+16193A	Keysight Technologies

* Equivalent measurement equipment may be used.

MHQ0603P type

ELECTRICAL CHARACTERISTICS

L FREQUENCY CHARACTERISTICS GRAPH (EXAMPLE)



○ Measurement equipment

Product No.	Manufacturer
E4991+16193A	Keysight Technologies

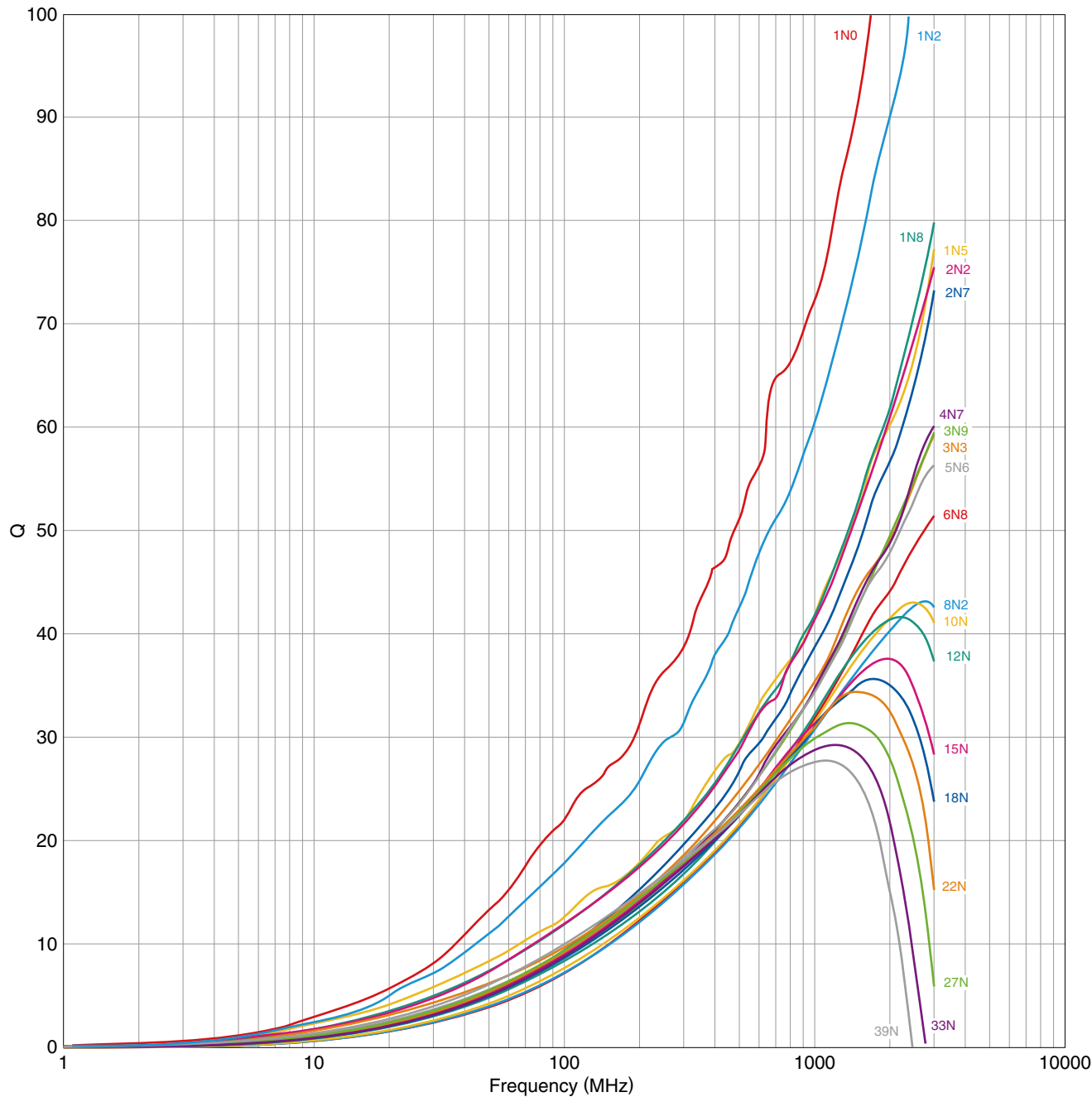
* Equivalent measurement equipment may be used.

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.
Please note that the contents may change without any prior notice due to reasons such as upgrading.

MHQ0603P type

ELECTRICAL CHARACTERISTICS

Q FREQUENCY CHARACTERISTICS GRAPH (EXAMPLE)



○ Measurement equipment

Product No.	Manufacturer
E4991+16193A	Keysight Technologies

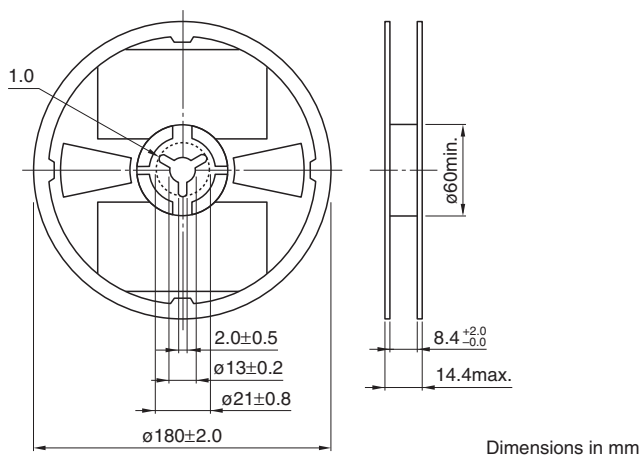
* Equivalent measurement equipment may be used.

Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

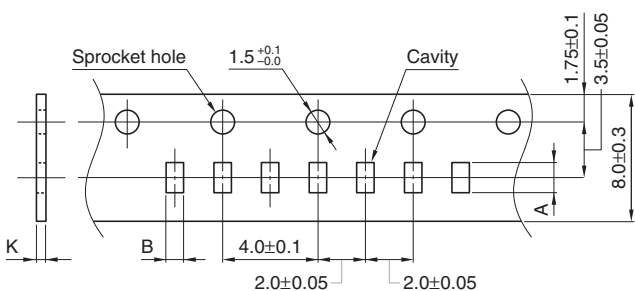
MHQ0603P type

PACKAGING STYLE

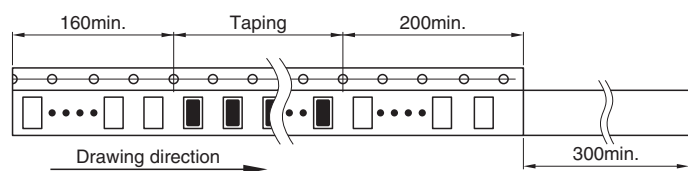
REEL DIMENSIONS



TAPE DIMENSIONS



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



⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.
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