



Inductors for High Frequency Circuits

Multilayer Ceramic

MHQ-PSA Series

MHQ0402PSA_{Type}

MHQ0402PSA 0402 [01005 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 these 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 (cars, 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

Overview of MHQ0402PSA Type

FEATURES

- Unique ceramic material and configuration allows for the realization of high Q characteristics.
- Multilayer method allows for a lineup with fine increments of inductance.

APPLICATION

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	0402		PSA	0N2		B		T		000
Series name	LxWxH Dimensions (mm)		Characteristics	Inductance (nH)		Inductance tolerance		Packaging style		Internal code
	0402	0.4x0.2x0.2	PSA	0N6	0.6	B	±0.1nH	T	Taping	000
				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)		
MHQ0402PSA	-55 to +125	-55 to +125	20000	0.07

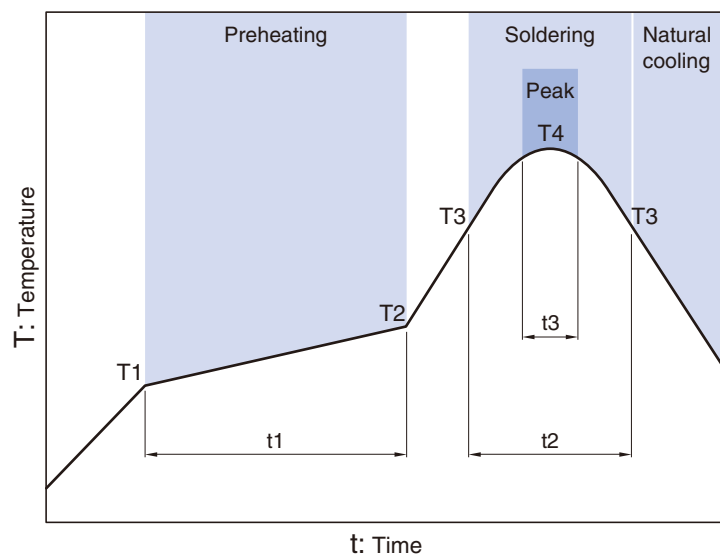
* The Storage temperature range is for after the circuit board is mounted.

- RoHS Directive Compliant Product: See the following for more details related to RoHS Directive compliant products. <http://product.tdk.com/en/environment/rohs/>
- 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.

MHQ0402PSA Type

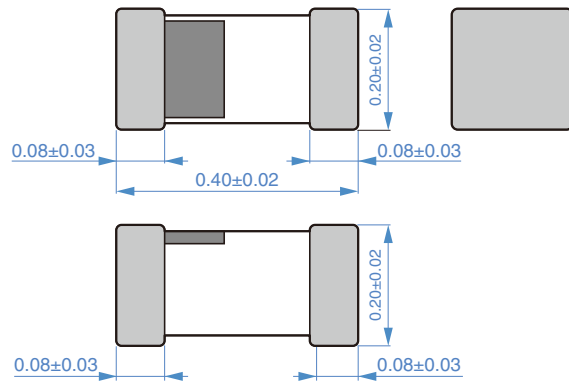
RECOMMENDED REFLOW PROFILE



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.

MHQ0402PSA Type

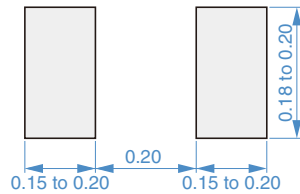
■ SHAPE & DIMENSIONS



Dimensions in mm



■ RECOMMENDED LAND PATTERN



Dimensions in mm

MHQ0402PSA 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. (Ω)typ.	(mA)max.			
0.2	± 0.1 nH	500	—	500	10 20.00	0.150 0.021	600			MHQ0402PSA0N2BT000
0.2	± 0.2 nH	500	—	500	10 20.00	0.150 0.021	600			MHQ0402PSA0N2CT000
0.3	± 0.1 nH	500	—	500	10 20.00	0.150 0.042	600			MHQ0402PSA0N3BT000
0.3	± 0.2 nH	500	—	500	10 20.00	0.150 0.042	600			MHQ0402PSA0N3CT000
0.4	± 0.1 nH	500	—	500	10 20.00	0.150 0.035	600			MHQ0402PSA0N4BT000
0.4	± 0.2 nH	500	—	500	10 20.00	0.150 0.035	600			MHQ0402PSA0N4CT000
0.4	± 0.3 nH	500	—	500	10 20.00	0.150 0.035	600			MHQ0402PSA0N4ST000
0.5	± 0.1 nH	500	—	500	10 20.00	0.150 0.035	600			MHQ0402PSA0N5BT000
0.5	± 0.2 nH	500	—	500	10 20.00	0.150 0.035	600			MHQ0402PSA0N5CT000
0.5	± 0.3 nH	500	—	500	10 20.00	0.150 0.035	600			MHQ0402PSA0N5ST000
0.6	± 0.1 nH	500	—	500	10 20.00	0.150 0.049	600			MHQ0402PSA0N6BT000
0.6	± 0.2 nH	500	—	500	10 20.00	0.150 0.049	600			MHQ0402PSA0N6CT000
0.6	± 0.3 nH	500	—	500	10 20.00	0.150 0.049	600			MHQ0402PSA0N6ST000
0.7	± 0.1 nH	500	—	500	10 20.00	0.150 0.057	600			MHQ0402PSA0N7BT000
0.7	± 0.2 nH	500	—	500	10 20.00	0.150 0.057	600			MHQ0402PSA0N7CT000
0.7	± 0.3 nH	500	—	500	10 20.00	0.150 0.057	600			MHQ0402PSA0N7ST000
0.8	± 0.1 nH	500	—	500	10 20.00	0.150 0.064	600			MHQ0402PSA0N8BT000
0.8	± 0.2 nH	500	—	500	10 20.00	0.150 0.064	600			MHQ0402PSA0N8CT000
0.8	± 0.3 nH	500	—	500	10 20.00	0.150 0.064	600			MHQ0402PSA0N8ST000
0.9	± 0.1 nH	500	—	500	10 20.00	0.150 0.076	600			MHQ0402PSA0N9BT000
0.9	± 0.2 nH	500	—	500	10 20.00	0.150 0.076	600			MHQ0402PSA0N9CT000
0.9	± 0.3 nH	500	—	500	10 20.00	0.150 0.076	600			MHQ0402PSA0N9ST000
1	± 0.1 nH	500	10	500	10 18.84	0.150 0.074	600			MHQ0402PSA1N0BT000
1	± 0.2 nH	500	10	500	10 18.84	0.150 0.074	600			MHQ0402PSA1N0CT000
1	± 0.3 nH	500	10	500	10 18.84	0.150 0.074	600			MHQ0402PSA1N0ST000
1.1	± 0.1 nH	500	10	500	10 20.00	0.150 0.109	500			MHQ0402PSA1N1BT000
1.1	± 0.2 nH	500	10	500	10 20.00	0.150 0.109	500			MHQ0402PSA1N1CT000
1.1	± 0.3 nH	500	10	500	10 20.00	0.150 0.109	500			MHQ0402PSA1N1ST000
1.2	± 0.1 nH	500	10	500	10 16.72	0.200 0.152	500			MHQ0402PSA1N2BT000
1.2	± 0.2 nH	500	10	500	10 16.72	0.200 0.152	500			MHQ0402PSA1N2CT000
1.2	± 0.3 nH	500	10	500	10 16.72	0.200 0.152	500			MHQ0402PSA1N2ST000
1.3	± 0.1 nH	500	10	500	10 16.61	0.200 0.130	400			MHQ0402PSA1N3BT000
1.3	± 0.2 nH	500	10	500	10 16.61	0.200 0.130	400			MHQ0402PSA1N3CT000
1.3	± 0.3 nH	500	10	500	10 16.61	0.200 0.130	400			MHQ0402PSA1N3ST000
1.4	± 0.1 nH	500	10	500	10 16.22	0.300 0.181	400			MHQ0402PSA1N4BT000
1.4	± 0.2 nH	500	10	500	10 16.22	0.300 0.181	400			MHQ0402PSA1N4CT000
1.4	± 0.3 nH	500	10	500	10 16.22	0.300 0.181	400			MHQ0402PSA1N4ST000
1.5	± 0.1 nH	500	10	500	10 14.74	0.200 0.148	400			MHQ0402PSA1N5BT000
1.5	± 0.2 nH	500	10	500	10 14.74	0.200 0.148	400			MHQ0402PSA1N5CT000
1.5	± 0.3 nH	500	10	500	10 14.74	0.200 0.148	400			MHQ0402PSA1N5ST000

* Short bar residual inductance =0.11nH

Measurement equipment

Measurement item	Product No.	Manufacturer
L, Q	4991A+16196D	Keysight Technologies
Self-resonant frequency	8720C	Keysight Technologies
DC resistance	4338A	Yokogawa

* Equivalent measurement equipment may be used.

MHQ0402PSA 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. (Ω)typ.	(mA)max.			
1.6	± 0.1 nH	500	10	500	10 15.27	0.300 0.148	400			MHQ0402PSA1N6BT000
1.6	± 0.2 nH	500	10	500	10 15.27	0.300 0.148	400			MHQ0402PSA1N6CT000
1.6	± 0.3 nH	500	10	500	10 15.27	0.300 0.148	400			MHQ0402PSA1N6ST000
1.7	± 0.1 nH	500	10	500	10 14.22	0.400 0.213	400			MHQ0402PSA1N7BT000
1.7	± 0.2 nH	500	10	500	10 14.22	0.400 0.213	400			MHQ0402PSA1N7CT000
1.7	± 0.3 nH	500	10	500	10 14.22	0.400 0.213	400			MHQ0402PSA1N7ST000
1.8	± 0.1 nH	500	10	500	8 12.32	0.400 0.142	400			MHQ0402PSA1N8BT000
1.8	± 0.2 nH	500	10	500	8 12.32	0.400 0.142	400			MHQ0402PSA1N8CT000
1.8	± 0.3 nH	500	10	500	8 12.32	0.400 0.142	400			MHQ0402PSA1N8ST000
1.9	± 0.1 nH	500	10	500	8 12.69	0.400 0.138	400			MHQ0402PSA1N9BT000
1.9	± 0.2 nH	500	10	500	8 12.69	0.400 0.138	400			MHQ0402PSA1N9CT000
1.9	± 0.3 nH	500	10	500	8 12.69	0.400 0.138	400			MHQ0402PSA1N9ST000
2	± 0.1 nH	500	10	500	8 12.76	0.400 0.173	400			MHQ0402PSA2N0BT000
2	± 0.2 nH	500	10	500	8 12.76	0.400 0.173	400			MHQ0402PSA2N0CT000
2	± 0.3 nH	500	10	500	8 12.76	0.400 0.173	400			MHQ0402PSA2N0ST000
2.1	± 0.1 nH	500	10	500	8 12.32	0.400 0.225	400			MHQ0402PSA2N1BT000
2.1	± 0.2 nH	500	10	500	8 12.32	0.400 0.225	400			MHQ0402PSA2N1CT000
2.1	± 0.3 nH	500	10	500	8 12.32	0.400 0.225	400			MHQ0402PSA2N1ST000
2.2	± 0.1 nH	500	10	500	8 10.66	0.400 0.164	400			MHQ0402PSA2N2BT000
2.2	± 0.2 nH	500	10	500	8 10.66	0.400 0.164	400			MHQ0402PSA2N2CT000
2.2	± 0.3 nH	500	10	500	8 10.66	0.400 0.164	400			MHQ0402PSA2N2ST000
2.3	± 0.1 nH	500	10	500	8 11.33	0.400 0.229	300			MHQ0402PSA2N3BT000
2.3	± 0.2 nH	500	10	500	8 11.33	0.400 0.229	300			MHQ0402PSA2N3CT000
2.3	± 0.3 nH	500	10	500	8 11.33	0.400 0.229	300			MHQ0402PSA2N3ST000
2.4	± 0.1 nH	500	10	500	8 11.53	0.400 0.254	300			MHQ0402PSA2N4BT000
2.4	± 0.2 nH	500	10	500	8 11.53	0.400 0.254	300			MHQ0402PSA2N4CT000
2.4	± 0.3 nH	500	10	500	8 11.53	0.400 0.254	300			MHQ0402PSA2N4ST000
2.5	± 0.1 nH	500	10	500	8 10.92	0.400 0.231	300			MHQ0402PSA2N5BT000
2.5	± 0.2 nH	500	10	500	8 10.92	0.400 0.231	300			MHQ0402PSA2N5CT000
2.5	± 0.3 nH	500	10	500	8 10.92	0.400 0.231	300			MHQ0402PSA2N5ST000
2.6	± 0.1 nH	500	10	500	8 10.60	0.400 0.223	300			MHQ0402PSA2N6BT000
2.6	± 0.2 nH	500	10	500	8 10.60	0.400 0.223	300			MHQ0402PSA2N6CT000
2.6	± 0.3 nH	500	10	500	8 10.60	0.400 0.223	300			MHQ0402PSA2N6ST000
2.7	± 0.1 nH	500	10	500	8 10.73	0.400 0.239	300			MHQ0402PSA2N7BT000
2.7	± 0.2 nH	500	10	500	8 10.73	0.400 0.239	300			MHQ0402PSA2N7CT000
2.7	± 0.3 nH	500	10	500	8 10.73	0.400 0.239	300			MHQ0402PSA2N7ST000
2.8	± 0.1 nH	500	10	500	8 10.41	0.400 0.226	250			MHQ0402PSA2N8BT000
2.8	± 0.2 nH	500	10	500	8 10.41	0.400 0.226	250			MHQ0402PSA2N8CT000
2.8	± 0.3 nH	500	10	500	8 10.41	0.400 0.226	250			MHQ0402PSA2N8ST000

ˆ Short bar residual inductance =0.11nH

Measurement equipment

Measurement item	Product No.	Manufacturer
L, Q	4991A+16196D	Keysight Technologies
Self-resonant frequency	8720C	Keysight Technologies
DC resistance	4338A	Yokogawa

* Equivalent measurement equipment may be used.

MHQ0402PSA 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. (Ω)typ.	(mA)max.			
2.9	± 0.1 nH	500	10	500	8 10.49	0.600 0.316	250			MHQ0402PSA2N9BT000
2.9	± 0.2 nH	500	10	500	8 10.49	0.600 0.316	250			MHQ0402PSA2N9CT000
2.9	± 0.3 nH	500	10	500	8 10.49	0.600 0.316	250			MHQ0402PSA2N9ST000
3	± 0.1 nH	500	10	500	7 10.22	0.600 0.282	250			MHQ0402PSA3N0BT000
3	± 0.2 nH	500	10	500	7 10.22	0.600 0.282	250			MHQ0402PSA3N0CT000
3	± 0.3 nH	500	10	500	7 10.22	0.600 0.282	250			MHQ0402PSA3N0ST000
3.1	± 0.1 nH	500	10	500	7 10.17	0.650 0.343	250			MHQ0402PSA3N1BT000
3.1	± 0.2 nH	500	10	500	7 10.17	0.650 0.343	250			MHQ0402PSA3N1CT000
3.1	± 0.3 nH	500	10	500	7 10.17	0.650 0.343	250			MHQ0402PSA3N1ST000
3.2	± 0.1 nH	500	10	500	7 9.99	0.650 0.334	250			MHQ0402PSA3N2BT000
3.2	± 0.2 nH	500	10	500	7 9.99	0.650 0.334	250			MHQ0402PSA3N2CT000
3.2	± 0.3 nH	500	10	500	7 9.99	0.650 0.334	250			MHQ0402PSA3N2ST000
3.3	± 0.1 nH	500	10	500	7 9.46	0.650 0.300	250			MHQ0402PSA3N3BT000
3.3	± 0.2 nH	500	10	500	7 9.46	0.650 0.300	250			MHQ0402PSA3N3CT000
3.3	± 0.3 nH	500	10	500	7 9.46	0.650 0.300	250			MHQ0402PSA3N3ST000
3.4	± 0.1 nH	500	10	500	6 8.91	0.650 0.223	200			MHQ0402PSA3N4BT000
3.4	± 0.2 nH	500	10	500	6 8.91	0.650 0.223	200			MHQ0402PSA3N4CT000
3.4	± 0.3 nH	500	10	500	6 8.91	0.650 0.223	200			MHQ0402PSA3N4ST000
3.5	± 0.1 nH	500	10	500	6 9.18	0.650 0.265	200			MHQ0402PSA3N5BT000
3.5	± 0.2 nH	500	10	500	6 9.18	0.650 0.265	200			MHQ0402PSA3N5CT000
3.5	± 0.3 nH	500	10	500	6 9.18	0.650 0.265	200			MHQ0402PSA3N5ST000
3.6	± 0.1 nH	500	10	500	6 8.85	0.650 0.291	200			MHQ0402PSA3N6BT000
3.6	± 0.2 nH	500	10	500	6 8.85	0.650 0.291	200			MHQ0402PSA3N6CT000
3.6	± 0.3 nH	500	10	500	6 8.85	0.650 0.291	200			MHQ0402PSA3N6ST000
3.7	± 0.1 nH	500	10	500	6 9.07	0.750 0.314	200			MHQ0402PSA3N7BT000
3.7	± 0.2 nH	500	10	500	6 9.07	0.750 0.314	200			MHQ0402PSA3N7CT000
3.7	± 0.3 nH	500	10	500	6 9.07	0.750 0.314	200			MHQ0402PSA3N7ST000
3.8	± 0.1 nH	500	10	500	6 9.02	0.750 0.314	200			MHQ0402PSA3N8BT000
3.8	± 0.2 nH	500	10	500	6 9.02	0.750 0.314	200			MHQ0402PSA3N8CT000
3.8	± 0.3 nH	500	10	500	6 9.02	0.750 0.314	200			MHQ0402PSA3N8ST000
3.9	± 0.1 nH	500	10	500	6 8.91	0.750 0.315	200			MHQ0402PSA3N9BT000
3.9	± 0.2 nH	500	10	500	6 8.91	0.750 0.315	200			MHQ0402PSA3N9CT000
3.9	± 0.3 nH	500	10	500	6 8.91	0.750 0.315	200			MHQ0402PSA3N9ST000

ˆ Short bar residual inductance =0.11nH

Measurement equipment

Measurement item	Product No.	Manufacturer
L, Q	4991A+16196D	Keysight Technologies
Self-resonant frequency	8720C	Keysight Technologies
DC resistance	4338A	Yokogawa

* Equivalent measurement equipment may be used.

MHQ0402PSA 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.		
4	± 0.1 nH	500	10	500	6	8.80	0.800	0.399	200	MHQ0402PSA4N0BT000
4	± 0.2 nH	500	10	500	6	8.80	0.800	0.399	200	MHQ0402PSA4N0CT000
4	± 0.3 nH	500	10	500	6	8.80	0.800	0.399	200	MHQ0402PSA4N0ST000
4.1	± 0.1 nH	500	10	500	6	8.65	0.800	0.396	200	MHQ0402PSA4N1BT000
4.1	± 0.2 nH	500	10	500	6	8.65	0.800	0.396	200	MHQ0402PSA4N1CT000
4.1	± 0.3 nH	500	10	500	6	8.65	0.800	0.396	200	MHQ0402PSA4N1ST000
4.2	± 0.1 nH	500	10	500	6	8.60	0.800	0.398	200	MHQ0402PSA4N2BT000
4.2	± 0.2 nH	500	10	500	6	8.60	0.800	0.398	200	MHQ0402PSA4N2CT000
4.2	± 0.3 nH	500	10	500	6	8.60	0.800	0.398	200	MHQ0402PSA4N2ST000
4.3	$\pm 3\%$	500	10	500	6	8.14	0.800	0.399	200	MHQ0402PSA4N3HT000
4.3	$\pm 5\%$	500	10	500	6	8.14	0.800	0.399	200	MHQ0402PSA4N3JT000
4.7	$\pm 3\%$	500	10	500	5	8.14	0.800	0.379	200	MHQ0402PSA4N7HT000
4.7	$\pm 5\%$	500	10	500	5	8.14	0.800	0.379	200	MHQ0402PSA4N7JT000
5.1	$\pm 3\%$	500	10	500	5	7.76	0.800	0.469	200	MHQ0402PSA5N1HT000
5.1	$\pm 5\%$	500	10	500	5	7.76	0.800	0.469	200	MHQ0402PSA5N1JT000
5.6	$\pm 3\%$	500	10	500	5	7.49	0.800	0.443	200	MHQ0402PSA5N6HT000
5.6	$\pm 5\%$	500	10	500	5	7.49	0.800	0.443	200	MHQ0402PSA5N6JT000
6.2	$\pm 3\%$	500	10	500	5	6.89	1.000	0.581	200	MHQ0402PSA6N2HT000
6.2	$\pm 5\%$	500	10	500	5	6.89	1.000	0.581	200	MHQ0402PSA6N2JT000
6.8	$\pm 3\%$	500	10	500	5	6.93	1.000	0.596	200	MHQ0402PSA6N8HT000
6.8	$\pm 5\%$	500	10	500	5	6.93	1.000	0.596	200	MHQ0402PSA6N8JT000
7.5	$\pm 3\%$	500	10	500	4	6.29	1.200	0.662	180	MHQ0402PSA7N5HT000
7.5	$\pm 5\%$	500	10	500	4	6.29	1.200	0.662	180	MHQ0402PSA7N5JT000
8.2	$\pm 3\%$	500	10	500	4	6.14	1.200	0.661	180	MHQ0402PSA8N2HT000
8.2	$\pm 5\%$	500	10	500	4	6.14	1.200	0.661	180	MHQ0402PSA8N2JT000

· Short bar residual inductance =0.11nH

Measurement equipment

Measurement item	Product No.	Manufacturer
L, Q	4991A+16196D	Keysight Technologies
Self-resonant frequency	8720C	Keysight Technologies
DC resistance	4338A	Yokogawa

* Equivalent measurement equipment may be used.

MHQ0402PSA 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	
0.2	0.2	0.2	0.2	0.2	28	40	62	65	70	MHQ0402PSA0N2BT000
0.2	0.2	0.2	0.2	0.2	28	40	62	65	70	MHQ0402PSA0N2CT000
0.3	0.3	0.3	0.3	0.3	29	37	71	77	91	MHQ0402PSA0N3BT000
0.3	0.3	0.3	0.3	0.3	29	37	71	77	91	MHQ0402PSA0N3CT000
0.4	0.4	0.4	0.4	0.4	18	23	41	44	51	MHQ0402PSA0N4BT000
0.4	0.4	0.4	0.4	0.4	18	23	41	44	51	MHQ0402PSA0N4CT000
0.4	0.4	0.4	0.4	0.4	18	23	41	44	51	MHQ0402PSA0N4ST000
0.5	0.5	0.5	0.5	0.5	18	23	40	43	49	MHQ0402PSA0N5BT000
0.5	0.5	0.5	0.5	0.5	18	23	40	43	49	MHQ0402PSA0N5CT000
0.5	0.5	0.5	0.5	0.5	18	23	40	43	49	MHQ0402PSA0N5ST000
0.6	0.6	0.6	0.6	0.6	16	21	35	38	44	MHQ0402PSA0N6BT000
0.6	0.6	0.6	0.6	0.6	16	21	35	38	44	MHQ0402PSA0N6CT000
0.6	0.6	0.6	0.6	0.6	16	21	35	38	44	MHQ0402PSA0N6ST000
0.7	0.7	0.7	0.7	0.7	17	21	35	38	43	MHQ0402PSA0N7BT000
0.7	0.7	0.7	0.7	0.7	17	21	35	38	43	MHQ0402PSA0N7CT000
0.7	0.7	0.7	0.7	0.7	17	21	35	38	43	MHQ0402PSA0N7ST000
0.8	0.8	0.8	0.8	0.8	17	21	35	38	43	MHQ0402PSA0N8BT000
0.8	0.8	0.8	0.8	0.8	17	21	35	38	43	MHQ0402PSA0N8CT000
0.8	0.8	0.8	0.8	0.8	17	21	35	38	43	MHQ0402PSA0N8ST000
0.9	0.9	0.9	0.9	0.9	17	21	35	38	43	MHQ0402PSA0N9BT000
0.9	0.9	0.9	0.9	0.9	17	21	35	38	43	MHQ0402PSA0N9CT000
0.9	0.9	0.9	0.9	0.9	17	21	35	38	43	MHQ0402PSA0N9ST000
1.0	1.0	1.0	1.0	1.0	16	20	31	33	37	MHQ0402PSA1N0BT000
1.0	1.0	1.0	1.0	1.0	16	20	31	33	37	MHQ0402PSA1N0CT000
1.0	1.0	1.0	1.0	1.0	16	20	31	33	37	MHQ0402PSA1N0ST000
1.1	1.1	1.1	1.1	1.1	14	18	31	33	37	MHQ0402PSA1N1BT000
1.1	1.1	1.1	1.1	1.1	14	18	31	33	37	MHQ0402PSA1N1CT000
1.1	1.1	1.1	1.1	1.1	14	18	31	33	37	MHQ0402PSA1N1ST000
1.2	1.2	1.2	1.2	1.2	14	18	31	33	37	MHQ0402PSA1N2BT000
1.2	1.2	1.2	1.2	1.2	14	18	31	33	37	MHQ0402PSA1N2CT000
1.2	1.2	1.2	1.2	1.2	14	18	31	33	37	MHQ0402PSA1N2ST000
1.3	1.3	1.3	1.3	1.3	14	18	29	31	35	MHQ0402PSA1N3BT000
1.3	1.3	1.3	1.3	1.3	14	18	29	31	35	MHQ0402PSA1N3CT000
1.3	1.3	1.3	1.3	1.3	14	18	29	31	35	MHQ0402PSA1N3ST000
1.4	1.4	1.4	1.4	1.4	14	18	30	32	36	MHQ0402PSA1N4BT000
1.4	1.4	1.4	1.4	1.4	14	18	30	32	36	MHQ0402PSA1N4CT000
1.4	1.4	1.4	1.4	1.4	14	18	30	32	36	MHQ0402PSA1N4ST000
1.5	1.5	1.5	1.5	1.5	15	19	30	31	35	MHQ0402PSA1N5BT000
1.5	1.5	1.5	1.5	1.5	15	19	30	31	35	MHQ0402PSA1N5CT000
1.5	1.5	1.5	1.5	1.5	15	19	30	31	35	MHQ0402PSA1N5ST000

○ Measurement equipment

Measurement item	Product No.	Manufacturer
L, Q	4991A+16196D	Keysight Technologies
Self-resonant frequency	8720C	Keysight Technologies
DC resistance	4338A	Yokogawa

* Equivalent measurement equipment may be used.

MHQ0402PSA 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	
1.6	1.6	1.6	1.6	1.6	14	18	30	32	36	MHQ0402PSA1N6BT000
1.6	1.6	1.6	1.6	1.6	14	18	30	32	36	MHQ0402PSA1N6CT000
1.6	1.6	1.6	1.6	1.6	14	18	30	32	36	MHQ0402PSA1N6ST000
1.7	1.7	1.7	1.7	1.7	15	19	31	33	37	MHQ0402PSA1N7BT000
1.7	1.7	1.7	1.7	1.7	15	19	31	33	37	MHQ0402PSA1N7CT000
1.7	1.7	1.7	1.7	1.7	15	19	31	33	37	MHQ0402PSA1N7ST000
1.8	1.8	1.8	1.8	1.8	14	18	30	31	35	MHQ0402PSA1N8BT000
1.8	1.8	1.8	1.8	1.8	14	18	30	31	35	MHQ0402PSA1N8CT000
1.8	1.8	1.8	1.8	1.8	14	18	30	31	35	MHQ0402PSA1N8ST000
1.9	1.9	1.9	1.9	1.9	14	18	29	31	35	MHQ0402PSA1N9BT000
1.9	1.9	1.9	1.9	1.9	14	18	29	31	35	MHQ0402PSA1N9CT000
1.9	1.9	1.9	1.9	1.9	14	18	29	31	35	MHQ0402PSA1N9ST000
2.0	2.0	1.9	1.9	1.9	14	18	30	31	35	MHQ0402PSA2N0BT000
2.0	2.0	1.9	1.9	1.9	14	18	30	31	35	MHQ0402PSA2N0CT000
2.0	2.0	1.9	1.9	1.9	14	18	30	31	35	MHQ0402PSA2N0ST000
2.1	2.1	2.1	2.1	2.1	13	17	29	30	34	MHQ0402PSA2N1BT000
2.1	2.1	2.1	2.1	2.1	13	17	29	30	34	MHQ0402PSA2N1CT000
2.1	2.1	2.1	2.1	2.1	13	17	29	30	34	MHQ0402PSA2N1ST000
2.2	2.2	2.2	2.2	2.2	14	18	29	30	34	MHQ0402PSA2N2BT000
2.2	2.2	2.2	2.2	2.2	14	18	29	30	34	MHQ0402PSA2N2CT000
2.2	2.2	2.2	2.2	2.2	14	18	29	30	34	MHQ0402PSA2N2ST000
2.3	2.3	2.3	2.3	2.3	13	17	29	31	35	MHQ0402PSA2N3BT000
2.3	2.3	2.3	2.3	2.3	13	17	29	31	35	MHQ0402PSA2N3CT000
2.3	2.3	2.3	2.3	2.3	13	17	29	31	35	MHQ0402PSA2N3ST000
2.4	2.4	2.4	2.4	2.4	14	18	29	30	33	MHQ0402PSA2N4BT000
2.4	2.4	2.4	2.4	2.4	14	18	29	30	33	MHQ0402PSA2N4CT000
2.4	2.4	2.4	2.4	2.4	14	18	29	30	33	MHQ0402PSA2N4ST000
2.5	2.5	2.5	2.5	2.5	14	19	31	33	37	MHQ0402PSA2N5BT000
2.5	2.5	2.5	2.5	2.5	14	19	31	33	37	MHQ0402PSA2N5CT000
2.5	2.5	2.5	2.5	2.5	14	19	31	33	37	MHQ0402PSA2N5ST000
2.6	2.6	2.6	2.6	2.6	14	18	30	32	36	MHQ0402PSA2N6BT000
2.6	2.6	2.6	2.6	2.6	14	18	30	32	36	MHQ0402PSA2N6CT000
2.6	2.6	2.6	2.6	2.6	14	18	30	32	36	MHQ0402PSA2N6ST000
2.7	2.7	2.7	2.7	2.7	14	18	29	31	35	MHQ0402PSA2N7BT000
2.7	2.7	2.7	2.7	2.7	14	18	29	31	35	MHQ0402PSA2N7CT000
2.7	2.7	2.7	2.7	2.7	14	18	29	31	35	MHQ0402PSA2N7ST000
2.8	2.8	2.8	2.8	2.8	14	18	29	31	35	MHQ0402PSA2N8BT000
2.8	2.8	2.8	2.8	2.8	14	18	29	31	35	MHQ0402PSA2N8CT000
2.8	2.8	2.8	2.8	2.8	14	18	29	31	35	MHQ0402PSA2N8ST000

○ Measurement equipment

Measurement item	Product No.	Manufacturer
L, Q	4991A+16196D	Keysight Technologies
Self-resonant frequency	8720C	Keysight Technologies
DC resistance	4338A	Yokogawa

* Equivalent measurement equipment may be used.

MHQ0402PSA 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	
2.9	2.9	2.9	2.9	2.9	14	19	31	33	37	MHQ0402PSA2N9BT000
2.9	2.9	2.9	2.9	2.9	14	19	31	33	37	MHQ0402PSA2N9CT000
2.9	2.9	2.9	2.9	2.9	14	19	31	33	37	MHQ0402PSA2N9ST000
3.0	3.0	3.0	3.0	3.0	14	18	31	33	37	MHQ0402PSA3N0BT000
3.0	3.0	3.0	3.0	3.0	14	18	31	33	37	MHQ0402PSA3N0CT000
3.0	3.0	3.0	3.0	3.0	14	18	31	33	37	MHQ0402PSA3N0ST000
3.1	3.1	3.1	3.1	3.1	14	18	30	32	36	MHQ0402PSA3N1BT000
3.1	3.1	3.1	3.1	3.1	14	18	30	32	36	MHQ0402PSA3N1CT000
3.1	3.1	3.1	3.1	3.1	14	18	30	32	36	MHQ0402PSA3N1ST000
3.2	3.2	3.2	3.2	3.2	14	18	29	31	34	MHQ0402PSA3N2BT000
3.2	3.2	3.2	3.2	3.2	14	18	29	31	34	MHQ0402PSA3N2CT000
3.2	3.2	3.2	3.2	3.2	14	18	29	31	34	MHQ0402PSA3N2ST000
3.3	3.3	3.3	3.3	3.3	14	18	30	32	35	MHQ0402PSA3N3BT000
3.3	3.3	3.3	3.3	3.3	14	18	30	32	35	MHQ0402PSA3N3CT000
3.3	3.3	3.3	3.3	3.3	14	18	30	32	35	MHQ0402PSA3N3ST000
3.4	3.4	3.4	3.4	3.4	14	18	30	32	36	MHQ0402PSA3N4BT000
3.4	3.4	3.4	3.4	3.4	14	18	30	32	36	MHQ0402PSA3N4CT000
3.4	3.4	3.4	3.4	3.4	14	18	30	32	36	MHQ0402PSA3N4ST000
3.5	3.5	3.4	3.4	3.5	15	18	29	31	34	MHQ0402PSA3N5BT000
3.5	3.5	3.4	3.4	3.5	15	18	29	31	34	MHQ0402PSA3N5CT000
3.5	3.5	3.4	3.4	3.5	15	18	29	31	34	MHQ0402PSA3N5ST000
3.6	3.6	3.6	3.6	3.6	14	18	29	31	35	MHQ0402PSA3N6BT000
3.6	3.6	3.6	3.6	3.6	14	18	29	31	35	MHQ0402PSA3N6CT000
3.6	3.6	3.6	3.6	3.6	14	18	29	31	35	MHQ0402PSA3N6ST000
3.7	3.7	3.7	3.7	3.7	14	18	30	31	35	MHQ0402PSA3N7BT000
3.7	3.7	3.7	3.7	3.7	14	18	30	31	35	MHQ0402PSA3N7CT000
3.7	3.7	3.7	3.7	3.7	14	18	30	31	35	MHQ0402PSA3N7ST000
3.8	3.8	3.8	3.8	3.8	15	19	31	33	37	MHQ0402PSA3N8BT000
3.8	3.8	3.8	3.8	3.8	15	19	31	33	37	MHQ0402PSA3N8CT000
3.8	3.8	3.8	3.8	3.8	15	19	31	33	37	MHQ0402PSA3N8ST000
3.9	3.9	3.9	3.9	4.0	14	19	31	33	36	MHQ0402PSA3N9BT000
3.9	3.9	3.9	3.9	4.0	14	19	31	33	36	MHQ0402PSA3N9CT000
3.9	3.9	3.9	3.9	4.0	14	19	31	33	36	MHQ0402PSA3N9ST000

○ Measurement equipment

Measurement item	Product No.	Manufacturer
L, Q	4991A+16196D	Keysight Technologies
Self-resonant frequency	8720C	Keysight Technologies
DC resistance	4338A	Yokogawa

* Equivalent measurement equipment may be used.

MHQ0402PSA 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	
4.0	4.0	4.0	4.0	4.1	14	19	30	32	36	MHQ0402PSA4N0BT000
4.0	4.0	4.0	4.0	4.1	14	19	30	32	36	MHQ0402PSA4N0CT000
4.0	4.0	4.0	4.0	4.1	14	19	30	32	36	MHQ0402PSA4N0ST000
4.1	4.1	4.1	4.1	4.1	14	19	31	32	36	MHQ0402PSA4N1BT000
4.1	4.1	4.1	4.1	4.1	14	19	31	32	36	MHQ0402PSA4N1CT000
4.1	4.1	4.1	4.1	4.1	14	19	31	32	36	MHQ0402PSA4N1ST000
4.2	4.2	4.2	4.2	4.3	14	18	30	32	36	MHQ0402PSA4N2BT000
4.2	4.2	4.2	4.2	4.3	14	18	30	32	36	MHQ0402PSA4N2CT000
4.2	4.2	4.2	4.2	4.3	14	18	30	32	36	MHQ0402PSA4N2ST000
4.3	4.3	4.3	4.3	4.3	14	19	30	32	35	MHQ0402PSA4N3HT000
4.3	4.3	4.3	4.3	4.3	14	19	30	32	35	MHQ0402PSA4N3JT000
4.7	4.7	4.7	4.7	4.8	14	18	29	31	34	MHQ0402PSA4N7HT000
4.7	4.7	4.7	4.7	4.8	14	18	29	31	34	MHQ0402PSA4N7JT000
5.1	5.1	5.1	5.2	5.3	14	18	29	31	34	MHQ0402PSA5N1HT000
5.1	5.1	5.1	5.2	5.3	14	18	29	31	34	MHQ0402PSA5N1JT000
5.6	5.6	5.6	5.7	5.8	14	19	30	31	35	MHQ0402PSA5N6HT000
5.6	5.6	5.6	5.7	5.8	14	19	30	31	35	MHQ0402PSA5N6JT000
6.2	6.1	6.2	6.3	6.4	15	19	29	31	34	MHQ0402PSA6N2HT000
6.2	6.1	6.2	6.3	6.4	15	19	29	31	34	MHQ0402PSA6N2JT000
6.8	6.8	6.9	7.0	7.1	15	19	30	32	35	MHQ0402PSA6N8HT000
6.8	6.8	6.9	7.0	7.1	15	19	30	32	35	MHQ0402PSA6N8JT000
7.5	7.5	7.7	7.8	8.0	14	19	29	30	33	MHQ0402PSA7N5HT000
7.5	7.5	7.7	7.8	8.0	14	19	29	30	33	MHQ0402PSA7N5JT000
8.2	8.2	8.4	8.5	8.8	15	19	29	30	33	MHQ0402PSA8N2HT000
8.2	8.2	8.4	8.5	8.8	15	19	29	30	33	MHQ0402PSA8N2JT000

○ Measurement equipment

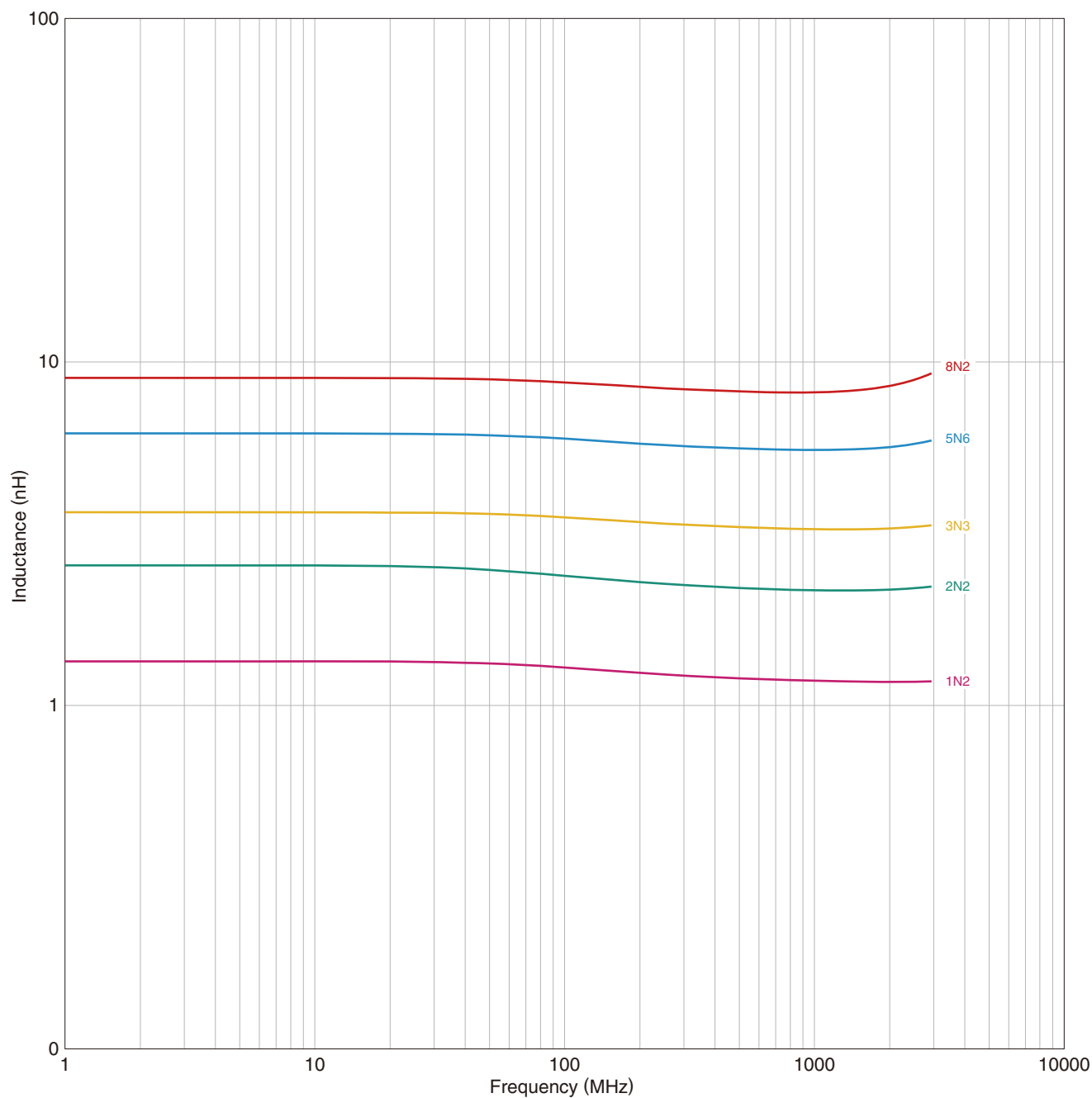
Measurement item	Product No.	Manufacturer
L, Q	4991A+16196D	Keysight Technologies
Self-resonant frequency	8720C	Keysight Technologies
DC resistance	4338A	Yokogawa

* Equivalent measurement equipment may be used.

MHQ0402PSAType

ELECTRICAL CHARACTERISTICS

L FREQUENCY CHARACTERISTICS GRAPH (EXAMPLE)



○ Measurement equipment

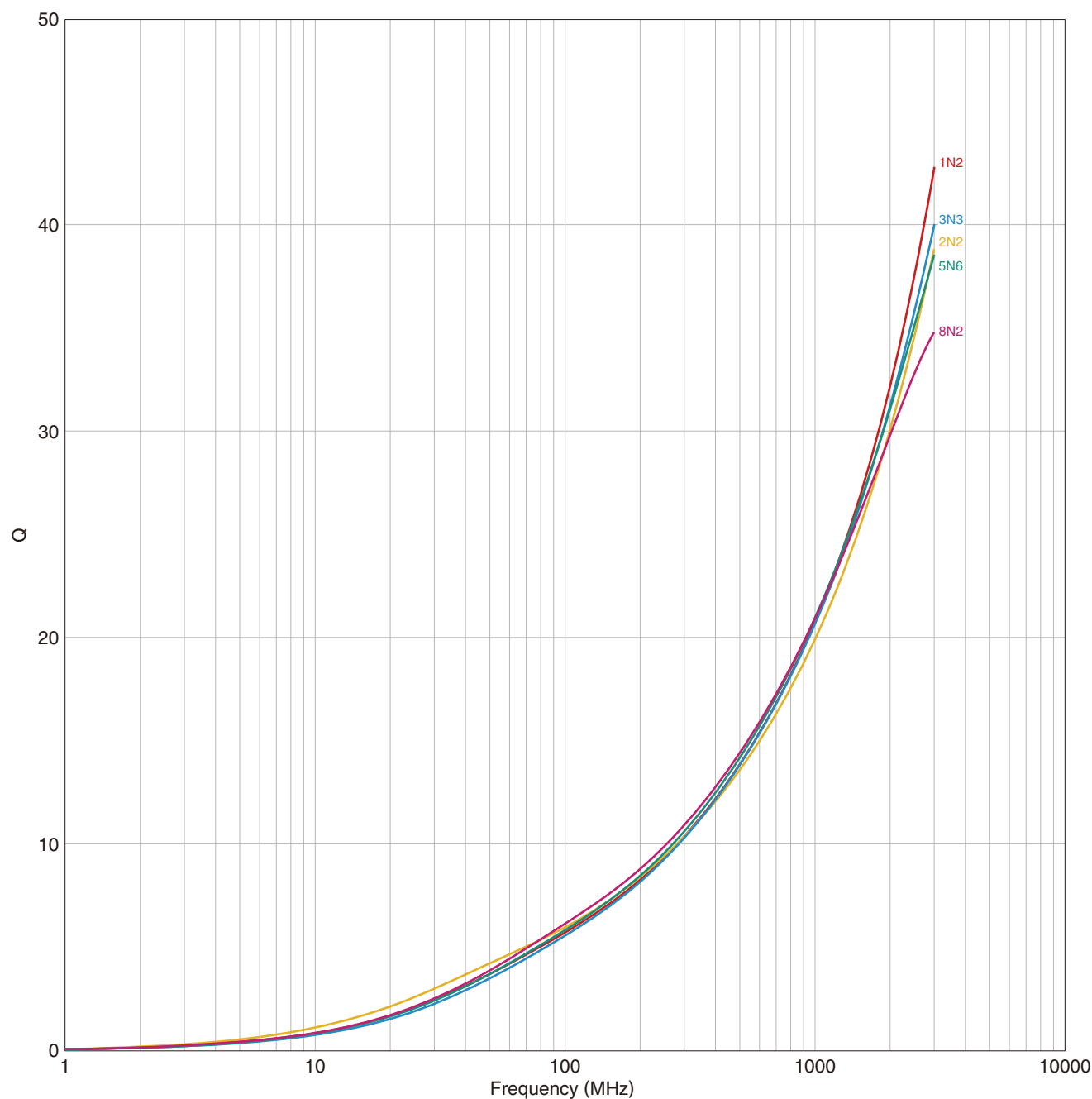
Product No.	Manufacturer
E4991A+16196D	Keysight Technologies

* Equivalent measurement equipment may be used.

MHQ0402PSA Type

ELECTRICAL CHARACTERISTICS

Q FREQUENCY CHARACTERISTICS GRAPH (EXAMPLE)

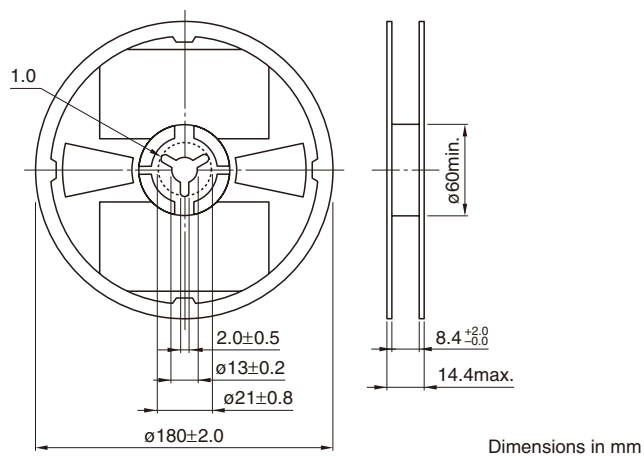


○ Measurement equipment

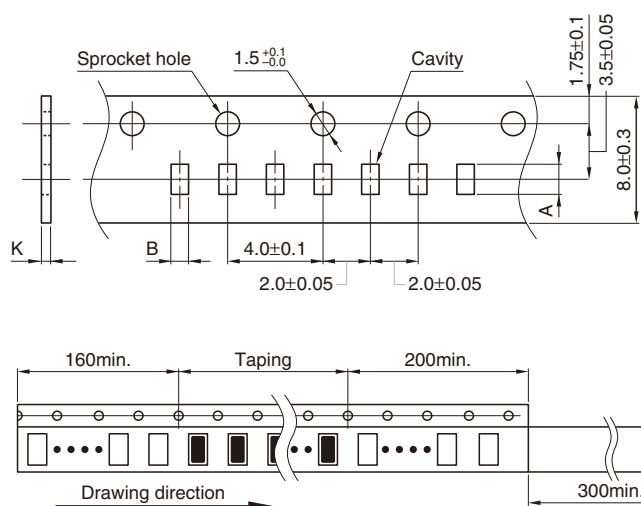
Product No.	Manufacturer
E4991A+16196D	Keysight Technologies

* Equivalent measurement equipment may be used.

REEL DIMENSIONS



□ TAPE DIMENSIONS



Type	A	B	K
MHQ0402PSA	0.48±0.02	0.28±0.02	0.40 max.

Mouser Electronics

Authorized Distributor

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TDK:

MHQ0402PSA1N4CT000	MHQ0402PSA0N5ST000	MHQ0402PSA8N2HT000	MHQ0402PSA2N0BT000
MHQ0402PSA0N7BT000	MHQ0402PSA1N9ST000	MHQ0402PSA3N8CT000	MHQ0402PSA2N2CT000
MHQ0402PSA3N9CT000	MHQ0402PSA0N8CT000	MHQ0402PSA3N3CT000	MHQ0402PSA5N1HT000
MHQ0402PSA0N2BT000	MHQ0402PSA3N6BT000	MHQ0402PSA4N1CT000	MHQ0402PSA2N3BT000
MHQ0402PSA4N3HT000	MHQ0402PSA1N1ST000	MHQ0402PSA3N2CT000	MHQ0402PSA1N5CT000
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