TDK

January 2016

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	L×W×H Dimensions (mm)		Characteristics	Inductance (nH)		Inductance tolerance		Packaging style		Internal code
	0402	0.4×0.2×0.2	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	Individual weight
	Operating temperature (°C)	Storage temperature* (°C)	(pieces/reel)	(mg)
MHQ0402PSA	–55 to +125	–55 to +125	20000	0.07

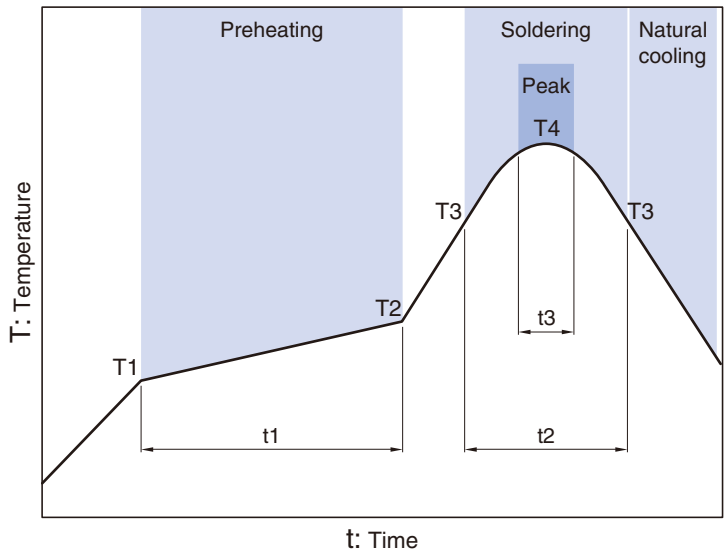
* The Storage temperature range is for after the circuit board is mounted.

- 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

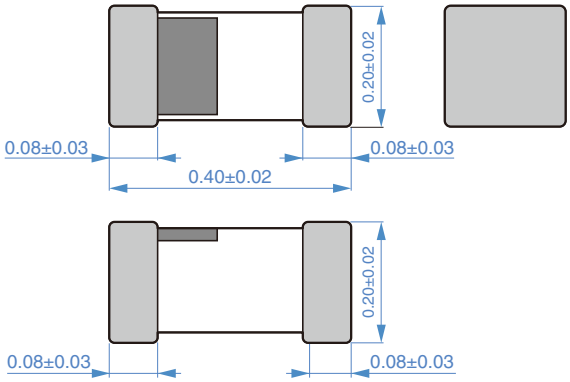


Preheating			Soldering		Peak	
Temp.		Time	Temp.	Time	Temp.	Time
T1	T2	t1	T3	t2	T4	t3
150°C	180°C	60 to 120s	230°C	30 to 60s	250 to 260°C	10s max.

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MHQ0402PSA Type

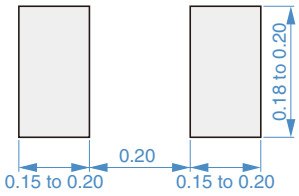
SHAPE & DIMENSIONS





Dimensions in mm

RECOMMENDED LAND PATTERN



Dimensions in mm

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

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

・ 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.

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

・ 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

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MHQ0402PSA Type

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

⚠ 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

■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.

⚠ 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

■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.

⚠ 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

■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.

⚠ 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

■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

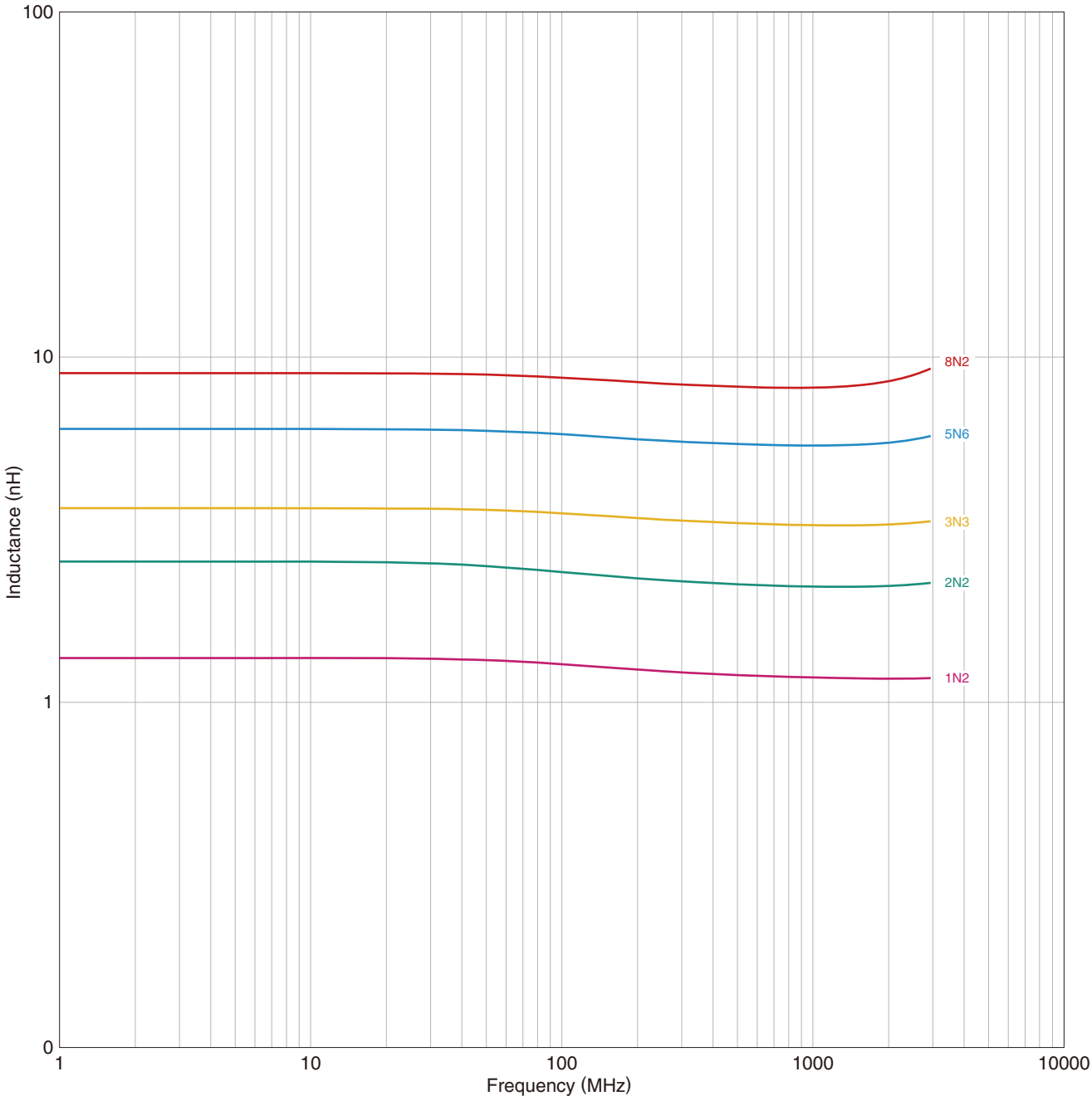
＊ Equivalent measurement equipment may be used.

⚠ 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.

MHQ0402PSAType

■ELECTRICAL CHARACTERISTICS

□L FREQUENCY CHARACTERISTICS GRAPH (EXAMPLE)



○ Measurement equipment

Product No.	Manufacturer
E4991A+16196D	Keysight Technologies

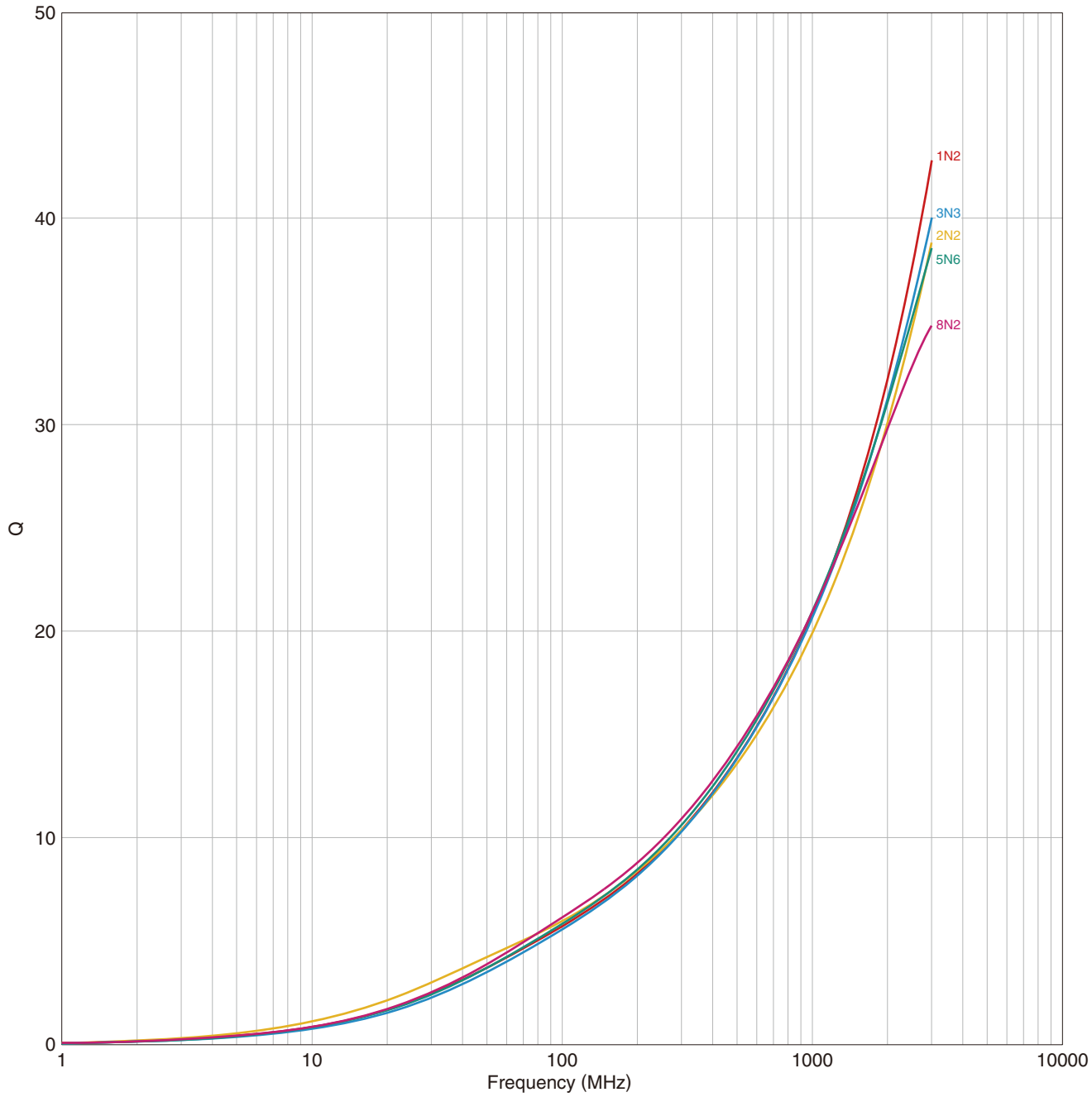
＊ Equivalent measurement equipment may be used.

⚠ 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.

MHQ0402PSA Type

■ELECTRICAL CHARACTERISTICS

□Q FREQUENCY CHARACTERISTICS GRAPH (EXAMPLE)



○ Measurement equipment

Product No.	Manufacturer
E4991A+16196D	Keysight Technologies

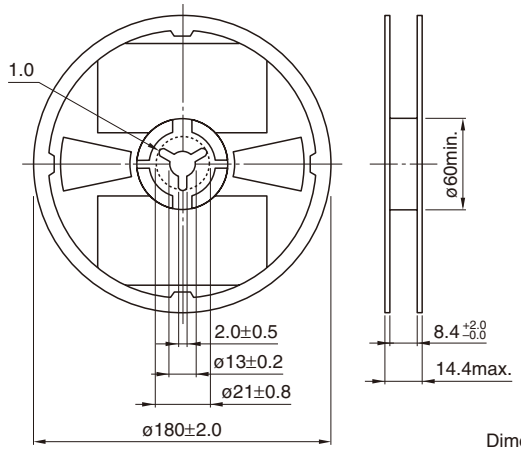
＊ Equivalent measurement equipment may be used.

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MHQ0402PSA Type

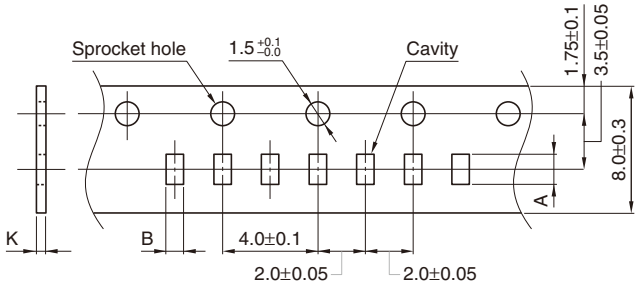
■PACKAGING STYLE

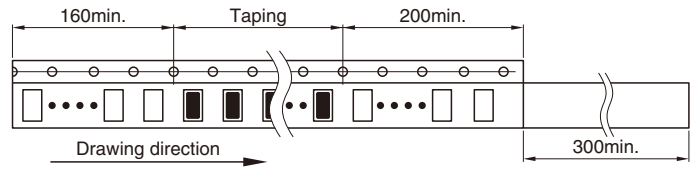
□REEL DIMENSIONS



Dimensions in mm

□TAPE DIMENSIONS





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

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