

MHQ1005P24NHTD25 Datasheet

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DiGi Electronics Part Number	MHQ1005P24NHTD25-DG
Manufacturer	TDK Corporation
Manufacturer Product Number	MHQ1005P24NHTD25
Description	FIXED IND 24NH 230MA 1.2 OHM SMD
Detailed Description	24 nH Unshielded Multilayer Inductor 230 mA 1.20 hm Max 0402 (1006 Metric)



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Purchase and inquiry

Manufacturer Product Number:

MHQ1005P24NHTD25

Series:

MHQ-P

Type:

Multilayer

Inductance:

24 nH

Current Rating (Amps):

230 mA

Shielding:

Unshielded

Q @ Freq:

20 @ 250MHz

Ratings:

AEC-Q200

Inductance Frequency - Test:

100 MHz

Package / Case:

0402 (1006 Metric)

Size / Dimension:

0.039" L x 0.024" W (1.00mm x 0.60mm)

Manufacturer:

TDK Corporation

Product Status:

Active

Material - Core:

Ceramic, Non-Magnetic

Tolerance:

±3%

Current - Saturation (Isat):

-

DC Resistance (DCR):

1.2Ohm Max

Frequency - Self Resonant:

2GHz

Operating Temperature:

-55°C ~ 125°C

Mounting Type:

Surface Mount

Supplier Device Package:

1006 (0402)

Height - Seated (Max):

0.024" (0.60mm)

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8504.50.8000

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

Inductors for high frequency circuits
Multilayer ceramic
MHQ-P series (for automotive)



AEC-Q200

MHQ1005P type



FEATURES

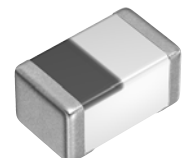
- Unique ceramic material and configuration allows for the realization of high Q characteristics that are equivalent to that of air core wound inductors.
- Multilayer method allows for a lineup with fine increments of inductance.
- Operating temperature range: -55 to +125°C

APPLICATION

- Automotive equipment, smart phones, tablet terminals, high frequency modules, Bluetooth, W-LAN, UWB, tuners and other high frequency circuits for the mobile communication industry
- Application guides: [Car Infotainment](#)

PART NUMBER CONSTRUCTION

MHQ	1005	P	0N7	B	T	D25
Series name	LxWxH dimensions 1.0x0.6x0.5 mm	Characteristics	Inductance (nH)	Inductance tolerance	Packaging style	Internal code



MHQ1005P 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.		
0.7	± 0.1 nH	100	—	250	15.0	18.3	0.03	0.01	1200	MHQ1005P0N7BTD25
0.7	± 0.2 nH	100	—	250	15.0	18.3	0.03	0.01	1200	MHQ1005P0N7CTD25
0.8	± 0.1 nH	100	—	250	15.0	18.3	0.03	0.01	1200	MHQ1005P0N8BTD25
0.8	± 0.2 nH	100	—	250	15.0	18.3	0.03	0.01	1200	MHQ1005P0N8CTD25
0.9	± 0.1 nH	100	—	250	15.0	18.6	0.03	0.01	1200	MHQ1005P0N9BTD25
0.9	± 0.2 nH	100	—	250	15.0	18.6	0.03	0.01	1200	MHQ1005P0N9CTD25
1.0	± 0.1 nH	100	—	250	15.0	20.0	0.03	0.01	1200	MHQ1005P1N0BTD25
1.0	± 0.2 nH	100	—	250	15.0	20.0	0.03	0.01	1200	MHQ1005P1N0CTD25
1.0	± 0.3 nH	100	—	250	15.0	20.0	0.03	0.01	1200	MHQ1005P1N0STD25
1.1	± 0.1 nH	100	—	250	14.0	20.0	0.03	0.02	1200	MHQ1005P1N1BTD25
1.1	± 0.2 nH	100	—	250	14.0	20.0	0.03	0.02	1200	MHQ1005P1N1CTD25
1.1	± 0.3 nH	100	—	250	14.0	20.0	0.03	0.02	1200	MHQ1005P1N1STD25
1.2	± 0.1 nH	100	—	250	13.0	20.0	0.03	0.01	1200	MHQ1005P1N2BTD25
1.2	± 0.2 nH	100	—	250	13.0	20.0	0.03	0.01	1200	MHQ1005P1N2CTD25
1.2	± 0.3 nH	100	—	250	13.0	20.0	0.03	0.01	1200	MHQ1005P1N2STD25
1.3	± 0.1 nH	100	—	250	12.0	20.0	0.03	0.01	1200	MHQ1005P1N3BTD25
1.3	± 0.2 nH	100	—	250	12.0	20.0	0.03	0.01	1200	MHQ1005P1N3CTD25
1.3	± 0.3 nH	100	—	250	12.0	20.0	0.03	0.01	1200	MHQ1005P1N3STD25
1.4	± 0.1 nH	100	23	250	12.0	20.0	0.04	0.02	1000	MHQ1005P1N4BTD25
1.4	± 0.2 nH	100	23	250	12.0	20.0	0.04	0.02	1000	MHQ1005P1N4CTD25
1.4	± 0.3 nH	100	23	250	12.0	20.0	0.04	0.02	1000	MHQ1005P1N4STD25
1.5	± 0.1 nH	100	23	250	11.0	19.7	0.04	0.02	1000	MHQ1005P1N5BTD25
1.5	± 0.2 nH	100	23	250	11.0	19.7	0.04	0.02	1000	MHQ1005P1N5CTD25
1.5	± 0.3 nH	100	23	250	11.0	19.7	0.04	0.02	1000	MHQ1005P1N5STD25
1.6	± 0.1 nH	100	23	250	10.0	15.2	0.04	0.02	1000	MHQ1005P1N6BTD25
1.6	± 0.2 nH	100	23	250	10.0	15.2	0.04	0.02	1000	MHQ1005P1N6CTD25
1.6	± 0.3 nH	100	23	250	10.0	15.2	0.04	0.02	1000	MHQ1005P1N6STD25
1.7	± 0.1 nH	100	23	250	10.0	15.4	0.04	0.02	1000	MHQ1005P1N7BTD25
1.7	± 0.2 nH	100	23	250	10.0	15.4	0.04	0.02	1000	MHQ1005P1N7CTD25
1.7	± 0.3 nH	100	23	250	10.0	15.4	0.04	0.02	1000	MHQ1005P1N7STD25
1.8	± 0.1 nH	100	23	250	9.0	15.1	0.04	0.03	1000	MHQ1005P1N8BTD25
1.8	± 0.2 nH	100	23	250	9.0	15.1	0.04	0.03	1000	MHQ1005P1N8CTD25
1.8	± 0.3 nH	100	23	250	9.0	15.1	0.04	0.03	1000	MHQ1005P1N8STD25
1.9	± 0.1 nH	100	23	250	8.0	14.8	0.05	0.03	1000	MHQ1005P1N9BTD25
1.9	± 0.2 nH	100	23	250	8.0	14.8	0.05	0.03	1000	MHQ1005P1N9CTD25
1.9	± 0.3 nH	100	23	250	8.0	14.8	0.05	0.03	1000	MHQ1005P1N9STD25
2.0	± 0.1 nH	100	23	250	8.0	11.5	0.05	0.03	1000	MHQ1005P2N0BTD25
2.0	± 0.2 nH	100	23	250	8.0	11.5	0.05	0.03	1000	MHQ1005P2N0CTD25
2.0	± 0.3 nH	100	23	250	8.0	11.5	0.05	0.03	1000	MHQ1005P2N0STD25
2.1	± 0.1 nH	100	23	250	8.0	13.1	0.06	0.04	1000	MHQ1005P2N1BTD25
2.1	± 0.2 nH	100	23	250	8.0	13.1	0.06	0.04	1000	MHQ1005P2N1CTD25
2.1	± 0.3 nH	100	23	250	8.0	13.1	0.06	0.04	1000	MHQ1005P2N1STD25
2.2	± 0.1 nH	100	23	250	8.0	12.1	0.06	0.04	1000	MHQ1005P2N2BTD25
2.2	± 0.2 nH	100	23	250	8.0	12.1	0.06	0.04	1000	MHQ1005P2N2CTD25
2.2	± 0.3 nH	100	23	250	8.0	12.1	0.06	0.04	1000	MHQ1005P2N2STD25

Measurement equipment

Measurement item	Product No.	Manufacturer
L, Q	4291B+16193A	Keysight Technologies
Self-resonant frequency	8720C	Keysight Technologies
DC resistance	Type-7561	Yokogawa

* Equivalent measurement equipment may be used.

MHQ1005P 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.		
2.3	± 0.1 nH	100	23	250	7.0	10.5	0.07	0.05	1000	MHQ1005P2N3BTD25
2.3	± 0.2 nH	100	23	250	7.0	10.5	0.07	0.05	1000	MHQ1005P2N3CTD25
2.3	± 0.3 nH	100	23	250	7.0	10.5	0.07	0.05	1000	MHQ1005P2N3STD25
2.4	± 0.1 nH	100	23	250	6.5	9.8	0.06	0.04	1000	MHQ1005P2N4BTD25
2.4	± 0.2 nH	100	23	250	6.5	9.8	0.06	0.04	1000	MHQ1005P2N4CTD25
2.4	± 0.3 nH	100	23	250	6.5	9.8	0.06	0.04	1000	MHQ1005P2N4STD25
2.5	± 0.1 nH	100	23	250	6.5	10.3	0.07	0.05	900	MHQ1005P2N5BTD25
2.5	± 0.2 nH	100	23	250	6.5	10.3	0.07	0.05	900	MHQ1005P2N5CTD25
2.5	± 0.3 nH	100	23	250	6.5	10.3	0.07	0.05	900	MHQ1005P2N5STD25
2.6	± 0.1 nH	100	23	250	6.5	10.1	0.07	0.05	900	MHQ1005P2N6BTD25
2.6	± 0.2 nH	100	23	250	6.5	10.1	0.07	0.05	900	MHQ1005P2N6CTD25
2.6	± 0.3 nH	100	23	250	6.5	10.1	0.07	0.05	900	MHQ1005P2N6STD25
2.7	± 0.1 nH	100	23	250	6.5	9.6	0.07	0.04	900	MHQ1005P2N7BTD25
2.7	± 0.2 nH	100	23	250	6.5	9.6	0.07	0.04	900	MHQ1005P2N7CTD25
2.7	± 0.3 nH	100	23	250	6.5	9.6	0.07	0.04	900	MHQ1005P2N7STD25
2.8	± 0.1 nH	100	23	250	6.5	10.3	0.08	0.05	900	MHQ1005P2N8BTD25
2.8	± 0.2 nH	100	23	250	6.5	10.3	0.08	0.05	900	MHQ1005P2N8CTD25
2.8	± 0.3 nH	100	23	250	6.5	10.3	0.08	0.05	900	MHQ1005P2N8STD25
2.9	± 0.1 nH	100	23	250	6.5	9.9	0.08	0.05	900	MHQ1005P2N9BTD25
2.9	± 0.2 nH	100	23	250	6.5	9.9	0.08	0.05	900	MHQ1005P2N9CTD25
2.9	± 0.3 nH	100	23	250	6.5	9.9	0.08	0.05	900	MHQ1005P2N9STD25
3.0	± 0.1 nH	100	23	250	6.0	9.4	0.08	0.06	900	MHQ1005P3N0BTD25
3.0	± 0.2 nH	100	23	250	6.0	9.4	0.08	0.06	900	MHQ1005P3N0CTD25
3.0	± 0.3 nH	100	23	250	6.0	9.4	0.08	0.06	900	MHQ1005P3N0STD25
3.1	± 0.1 nH	100	23	250	6.0	10.3	0.09	0.06	900	MHQ1005P3N1BTD25
3.1	± 0.2 nH	100	23	250	6.0	10.3	0.09	0.06	900	MHQ1005P3N1CTD25
3.1	± 0.3 nH	100	23	250	6.0	10.3	0.09	0.06	900	MHQ1005P3N1STD25
3.2	± 0.1 nH	100	23	250	6.0	10.0	0.09	0.07	900	MHQ1005P3N2BTD25
3.2	± 0.2 nH	100	23	250	6.0	10.0	0.09	0.07	900	MHQ1005P3N2CTD25
3.2	± 0.3 nH	100	23	250	6.0	10.0	0.09	0.07	900	MHQ1005P3N2STD25
3.3	± 0.1 nH	100	23	250	6.0	9.0	0.08	0.06	900	MHQ1005P3N3BTD25
3.3	± 0.2 nH	100	23	250	6.0	9.0	0.08	0.06	900	MHQ1005P3N3CTD25
3.3	± 0.3 nH	100	23	250	6.0	9.0	0.08	0.06	900	MHQ1005P3N3STD25
3.4	± 0.1 nH	100	23	250	6.0	9.0	0.09	0.06	900	MHQ1005P3N4BTD25
3.4	± 0.2 nH	100	23	250	6.0	9.0	0.09	0.06	900	MHQ1005P3N4CTD25
3.4	± 0.3 nH	100	23	250	6.0	9.0	0.09	0.06	900	MHQ1005P3N4STD25
3.5	± 0.1 nH	100	23	250	5.8	8.8	0.09	0.07	900	MHQ1005P3N5BTD25
3.5	± 0.2 nH	100	23	250	5.8	8.8	0.09	0.07	900	MHQ1005P3N5CTD25
3.5	± 0.3 nH	100	23	250	5.8	8.8	0.09	0.07	900	MHQ1005P3N5STD25
3.6	± 0.1 nH	100	23	250	5.5	8.4	0.09	0.07	900	MHQ1005P3N6BTD25
3.6	± 0.2 nH	100	23	250	5.5	8.4	0.09	0.07	900	MHQ1005P3N6CTD25
3.6	± 0.3 nH	100	23	250	5.5	8.4	0.09	0.07	900	MHQ1005P3N6STD25
3.7	± 0.1 nH	100	23	250	5.5	8.5	0.10	0.08	900	MHQ1005P3N7BTD25
3.7	± 0.2 nH	100	23	250	5.5	8.5	0.10	0.08	900	MHQ1005P3N7CTD25
3.7	± 0.3 nH	100	23	250	5.5	8.5	0.10	0.08	900	MHQ1005P3N7STD25

Measurement equipment

Measurement item	Product No.	Manufacturer
L, Q	4291B+16193A	Keysight Technologies
Self-resonant frequency	8720C	Keysight Technologies
DC resistance	Type-7561	Yokogawa

* Equivalent measurement equipment may be used.

MHQ1005P 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.		
3.8	± 0.1 nH	100	23	250	5.0	7.9	0.10	0.07	900	MHQ1005P3N8BTD25
3.8	± 0.2 nH	100	23	250	5.0	7.9	0.10	0.07	900	MHQ1005P3N8CTD25
3.8	± 0.3 nH	100	23	250	5.0	7.9	0.10	0.07	900	MHQ1005P3N8STD25
3.9	± 0.1 nH	100	23	250	5.0	7.7	0.09	0.07	900	MHQ1005P3N9BTD25
3.9	± 0.2 nH	100	23	250	5.0	7.7	0.09	0.07	900	MHQ1005P3N9CTD25
3.9	± 0.3 nH	100	23	250	5.0	7.7	0.09	0.07	900	MHQ1005P3N9STD25
4.1	± 0.1 nH	100	23	250	5.0	7.7	0.10	0.07	800	MHQ1005P4N1BTD25
4.1	± 0.2 nH	100	23	250	5.0	7.7	0.10	0.07	800	MHQ1005P4N1CTD25
4.1	± 0.3 nH	100	23	250	5.0	7.7	0.10	0.07	800	MHQ1005P4N1STD25
4.3	± 0.1 nH	100	23	250	5.0	7.1	0.10	0.08	800	MHQ1005P4N3BTD25
4.3	± 0.2 nH	100	23	250	5.0	7.1	0.10	0.08	800	MHQ1005P4N3CTD25
4.3	± 0.3 nH	100	23	250	5.0	7.1	0.10	0.08	800	MHQ1005P4N3STD25
4.7	± 0.1 nH	100	23	250	5.0	7.7	0.11	0.08	800	MHQ1005P4N7BTD25
4.7	± 0.2 nH	100	23	250	5.0	7.7	0.11	0.08	800	MHQ1005P4N7CTD25
4.7	± 0.3 nH	100	23	250	5.0	7.7	0.11	0.08	800	MHQ1005P4N7STD25
5.1	± 0.1 nH	100	23	250	4.5	7.2	0.12	0.09	800	MHQ1005P5N1BTD25
5.1	± 0.2 nH	100	23	250	4.5	7.2	0.12	0.09	800	MHQ1005P5N1CTD25
5.1	± 0.3 nH	100	23	250	4.5	7.2	0.12	0.09	800	MHQ1005P5N1STD25
5.6	± 0.1 nH	100	23	250	4.5	6.5	0.13	0.10	800	MHQ1005P5N6BTD25
5.6	± 0.2 nH	100	23	250	4.5	6.5	0.13	0.10	800	MHQ1005P5N6CTD25
5.6	± 0.3 nH	100	23	250	4.5	6.5	0.13	0.10	800	MHQ1005P5N6STD25
5.8	± 0.1 nH	100	23	250	4.0	5.9	0.13	0.09	700	MHQ1005P5N8BTD25
5.8	± 0.2 nH	100	23	250	4.0	5.9	0.13	0.09	700	MHQ1005P5N8CTD25
5.8	± 0.3 nH	100	23	250	4.0	5.9	0.13	0.09	700	MHQ1005P5N8STD25
6.2	± 0.1 nH	100	23	250	4.0	5.9	0.13	0.09	700	MHQ1005P6N2BTD25
6.2	± 0.2 nH	100	23	250	4.0	5.9	0.13	0.09	700	MHQ1005P6N2CTD25
6.2	± 0.3 nH	100	23	250	4.0	5.9	0.13	0.09	700	MHQ1005P6N2STD25
6.8	$\pm 2\%$	100	23	250	4.0	5.8	0.14	0.10	700	MHQ1005P6N8GTD25
6.8	$\pm 3\%$	100	23	250	4.0	5.8	0.14	0.10	700	MHQ1005P6N8HTD25
6.8	$\pm 5\%$	100	23	250	4.0	5.8	0.14	0.10	700	MHQ1005P6N8JTD25
7.3	$\pm 2\%$	100	23	250	4.0	5.7	0.17	0.13	600	MHQ1005P7N3GTD25
7.3	$\pm 3\%$	100	23	250	4.0	5.7	0.17	0.13	600	MHQ1005P7N3HTD25
7.3	$\pm 5\%$	100	23	250	4.0	5.7	0.17	0.13	600	MHQ1005P7N3JTD25
7.5	$\pm 2\%$	100	23	250	4.0	5.6	0.16	0.12	600	MHQ1005P7N5GTD25
7.5	$\pm 3\%$	100	23	250	4.0	5.6	0.16	0.12	600	MHQ1005P7N5HTD25
7.5	$\pm 5\%$	100	23	250	4.0	5.6	0.16	0.12	600	MHQ1005P7N5JTD25
8.2	$\pm 2\%$	100	23	250	3.6	4.9	0.16	0.12	550	MHQ1005P8N2GTD25
8.2	$\pm 3\%$	100	23	250	3.6	4.9	0.16	0.12	550	MHQ1005P8N2HTD25
8.2	$\pm 5\%$	100	23	250	3.6	4.9	0.16	0.12	550	MHQ1005P8N2JTD25
8.7	$\pm 2\%$	100	23	250	3.5	4.7	0.17	0.13	550	MHQ1005P8N7GTD25
8.7	$\pm 3\%$	100	23	250	3.5	4.7	0.17	0.13	550	MHQ1005P8N7HTD25
8.7	$\pm 5\%$	100	23	250	3.5	4.7	0.17	0.13	550	MHQ1005P8N7JTD25
9.1	$\pm 2\%$	100	23	250	3.4	4.5	0.17	0.13	550	MHQ1005P9N1GTD25
9.1	$\pm 3\%$	100	23	250	3.4	4.5	0.17	0.13	550	MHQ1005P9N1HTD25
9.1	$\pm 5\%$	100	23	250	3.4	4.5	0.17	0.13	550	MHQ1005P9N1JTD25

Measurement equipment

Measurement item	Product No.	Manufacturer
L, Q	4291B+16193A	Keysight Technologies
Self-resonant frequency	8720C	Keysight Technologies
DC resistance	Type-7561	Yokogawa

* Equivalent measurement equipment may be used.

MHQ1005P 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.		
9.5	±2%	100	23	250	3.3	4.7	0.21	0.16	500	MHQ1005P9N5GTD25
9.5	±3%	100	23	250	3.3	4.7	0.21	0.16	500	MHQ1005P9N5HTD25
9.5	±5%	100	23	250	3.3	4.7	0.21	0.16	500	MHQ1005P9N5JTD25
10	±2%	100	23	250	3.3	4.6	0.19	0.15	500	MHQ1005P10NGTD25
10	±3%	100	23	250	3.3	4.6	0.19	0.15	500	MHQ1005P10NHTD25
10	±5%	100	23	250	3.3	4.6	0.19	0.15	500	MHQ1005P10NJTD25
11	±2%	100	23	250	3.0	4.2	0.24	0.20	450	MHQ1005P11NGTD25
11	±3%	100	23	250	3.0	4.2	0.24	0.20	450	MHQ1005P11NHTD25
11	±5%	100	23	250	3.0	4.2	0.24	0.20	450	MHQ1005P11NJTD25
12	±2%	100	23	250	2.8	3.8	0.24	0.19	450	MHQ1005P12NGTD25
12	±3%	100	23	250	2.8	3.8	0.24	0.19	450	MHQ1005P12NHTD25
12	±5%	100	23	250	2.8	3.8	0.24	0.19	450	MHQ1005P12NJTD25
13	±2%	100	23	250	2.5	3.5	0.26	0.20	420	MHQ1005P13NGTD25
13	±3%	100	23	250	2.5	3.5	0.26	0.20	420	MHQ1005P13NHTD25
13	±5%	100	23	250	2.5	3.5	0.26	0.20	420	MHQ1005P13NJTD25
15	±2%	100	23	250	2.3	3.2	0.28	0.22	400	MHQ1005P15NGTD25
15	±3%	100	23	250	2.3	3.2	0.28	0.22	400	MHQ1005P15NHTD25
15	±5%	100	23	250	2.3	3.2	0.28	0.22	400	MHQ1005P15NJTD25
16	±2%	100	20	250	2.3	3.5	0.80	0.57	260	MHQ1005P16NGTD25
16	±3%	100	20	250	2.3	3.5	0.80	0.57	260	MHQ1005P16NHTD25
16	±5%	100	20	250	2.3	3.5	0.80	0.57	260	MHQ1005P16NJTD25
18	±2%	100	22	250	2.3	3.4	0.80	0.48	260	MHQ1005P18NGTD25
18	±3%	100	22	250	2.3	3.4	0.80	0.48	260	MHQ1005P18NHTD25
18	±5%	100	22	250	2.3	3.4	0.80	0.48	260	MHQ1005P18NJTD25
19	±2%	100	20	250	2.3	3.2	0.80	0.46	260	MHQ1005P19NGTD25
19	±3%	100	20	250	2.3	3.2	0.80	0.46	260	MHQ1005P19NHTD25
19	±5%	100	20	250	2.3	3.2	0.80	0.46	260	MHQ1005P19NJTD25
20	±2%	100	20	250	2.1	3.1	1.10	0.46	260	MHQ1005P20NGTD25
20	±3%	100	20	250	2.1	3.1	1.10	0.46	260	MHQ1005P20NHTD25
20	±5%	100	20	250	2.1	3.1	1.10	0.46	260	MHQ1005P20NJTD25
22	±2%	100	20	250	2.1	2.9	1.10	0.66	230	MHQ1005P22NGTD25
22	±3%	100	20	250	2.1	2.9	1.10	0.66	230	MHQ1005P22NHTD25
22	±5%	100	20	250	2.1	2.9	1.10	0.66	230	MHQ1005P22NJTD25
23	±2%	100	22	250	2.0	2.9	1.10	0.62	230	MHQ1005P23NGTD25
23	±3%	100	22	250	2.0	2.9	1.10	0.62	230	MHQ1005P23NHTD25
23	±5%	100	22	250	2.0	2.9	1.10	0.62	230	MHQ1005P23NJTD25
24	±2%	100	20	250	2.0	2.8	1.20	0.55	230	MHQ1005P24NGTD25
24	±3%	100	20	250	2.0	2.8	1.20	0.55	230	MHQ1005P24NHTD25
24	±5%	100	20	250	2.0	2.8	1.20	0.55	230	MHQ1005P24NJTD25
27	±2%	100	20	250	1.7	2.6	1.30	0.66	230	MHQ1005P27NGTD25
27	±3%	100	20	250	1.7	2.6	1.30	0.66	230	MHQ1005P27NHTD25
27	±5%	100	20	250	1.7	2.6	1.30	0.66	230	MHQ1005P27NJTD25
30	±2%	100	20	250	1.7	2.4	1.30	0.80	220	MHQ1005P30NGTD25
30	±3%	100	20	250	1.7	2.4	1.30	0.80	220	MHQ1005P30NHTD25
30	±5%	100	20	250	1.7	2.4	1.30	0.80	220	MHQ1005P30NJTD25

Measurement equipment

Measurement item	Product No.	Manufacturer
L, Q	4291B+16193A	Keysight Technologies
Self-resonant frequency	8720C	Keysight Technologies
DC resistance	Type-7561	Yokogawa

* Equivalent measurement equipment may be used.

MHQ1005P 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.		
33	±2%	100	20	250	1.6	2.3	1.50	0.74	220	MHQ1005P33NGTD25
33	±3%	100	20	250	1.6	2.3	1.50	0.74	220	MHQ1005P33NHTD25
33	±5%	100	20	250	1.6	2.3	1.50	0.74	220	MHQ1005P33NJTD25
36	±2%	100	20	250	1.6	2.2	1.50	0.92	190	MHQ1005P36NGTD25
36	±3%	100	20	250	1.6	2.2	1.50	0.92	190	MHQ1005P36NHTD25
36	±5%	100	20	250	1.6	2.2	1.50	0.92	190	MHQ1005P36NJTD25
39	±2%	100	20	250	1.4	2.1	1.50	0.95	190	MHQ1005P39NGTD25
39	±3%	100	20	250	1.4	2.1	1.50	0.95	190	MHQ1005P39NHTD25
39	±5%	100	20	250	1.4	2.1	1.50	0.95	190	MHQ1005P39NJTD25
40	±2%	100	20	250	1.4	2.1	1.50	1.12	190	MHQ1005P40NGTD25
40	±3%	100	20	250	1.4	2.1	1.50	1.12	190	MHQ1005P40NHTD25
40	±5%	100	20	250	1.4	2.1	1.50	1.12	190	MHQ1005P40NJTD25
43	±2%	100	22	250	1.4	2.0	1.60	1.06	190	MHQ1005P43NGTD25
43	±3%	100	22	250	1.4	2.0	1.60	1.06	190	MHQ1005P43NHTD25
43	±5%	100	22	250	1.4	2.0	1.60	1.06	190	MHQ1005P43NJTD25
47	±2%	100	22	250	1.3	1.9	1.60	1.09	190	MHQ1005P47NGTD25
47	±3%	100	22	250	1.3	1.9	1.60	1.09	190	MHQ1005P47NHTD25
47	±5%	100	22	250	1.3	1.9	1.60	1.09	190	MHQ1005P47NJTD25
51	±2%	100	22	250	1.3	1.8	1.80	1.17	190	MHQ1005P51NGTD25
51	±3%	100	22	250	1.3	1.8	1.80	1.17	190	MHQ1005P51NHTD25
51	±5%	100	22	250	1.3	1.8	1.80	1.17	190	MHQ1005P51NJTD25
56	±2%	100	22	250	1.2	1.8	1.80	1.22	180	MHQ1005P56NGTD25
56	±3%	100	22	250	1.2	1.8	1.80	1.22	180	MHQ1005P56NHTD25
56	±5%	100	22	250	1.2	1.8	1.80	1.22	180	MHQ1005P56NJTD25
62	±2%	100	22	250	1.1	1.6	1.90	1.36	180	MHQ1005P62NGTD25
62	±3%	100	22	250	1.1	1.6	1.90	1.36	180	MHQ1005P62NHTD25
62	±5%	100	22	250	1.1	1.6	1.90	1.36	180	MHQ1005P62NJTD25
68	±2%	100	22	250	1.1	1.6	2.00	1.43	160	MHQ1005P68NGTD25
68	±3%	100	22	250	1.1	1.6	2.00	1.43	160	MHQ1005P68NHTD25
68	±5%	100	22	250	1.1	1.6	2.00	1.43	160	MHQ1005P68NJTD25
72	±2%	100	22	250	1.1	1.5	2.20	1.62	160	MHQ1005P72NGTD25
72	±3%	100	22	250	1.1	1.5	2.20	1.62	160	MHQ1005P72NHTD25
72	±5%	100	22	250	1.1	1.5	2.20	1.62	160	MHQ1005P72NJTD25
75	±2%	100	22	250	1.1	1.5	2.20	1.53	160	MHQ1005P75NGTD25
75	±3%	100	22	250	1.1	1.5	2.20	1.53	160	MHQ1005P75NHTD25
75	±5%	100	22	250	1.1	1.5	2.20	1.53	160	MHQ1005P75NJTD25
82	±2%	100	22	250	0.9	1.5	2.30	1.61	160	MHQ1005P82NGTD25
82	±3%	100	22	250	0.9	1.5	2.30	1.61	160	MHQ1005P82NHTD25
82	±5%	100	22	250	0.9	1.5	2.30	1.61	160	MHQ1005P82NJTD25
91	±2%	100	23	250	0.9	1.4	2.30	1.78	160	MHQ1005P91NGTD25
91	±3%	100	23	250	0.9	1.4	2.30	1.78	160	MHQ1005P91NHTD25
91	±5%	100	23	250	0.9	1.4	2.30	1.78	160	MHQ1005P91NJTD25
100	±2%	100	23	250	0.9	1.2	2.50	1.80	150	MHQ1005PR10GTD25
100	±3%	100	23	250	0.9	1.2	2.50	1.80	150	MHQ1005PR10HTD25
100	±5%	100	23	250	0.9	1.2	2.50	1.80	150	MHQ1005PR10JTD25

Measurement equipment

Measurement item	Product No.	Manufacturer
L, Q	4291B+16193A	Keysight Technologies
Self-resonant frequency	8720C	Keysight Technologies
DC resistance	Type-7561	Yokogawa

* Equivalent measurement equipment may be used.

MHQ1005P 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.		
110	±2%	100	22	250	0.8	1.2	2.70	1.98	150	MHQ1005PR11GTD25
110	±3%	100	22	250	0.8	1.2	2.70	1.98	150	MHQ1005PR11HTD25
110	±5%	100	22	250	0.8	1.2	2.70	1.98	150	MHQ1005PR11JTD25
120	±2%	100	22	250	0.8	1.2	2.70	1.81	140	MHQ1005PR12GTD25
120	±3%	100	22	250	0.8	1.2	2.70	1.81	140	MHQ1005PR12HTD25
120	±5%	100	22	250	0.8	1.2	2.70	1.81	140	MHQ1005PR12JTD25
130	±2%	100	22	250	0.8	1.1	2.90	2.18	110	MHQ1005PR13GTD25
130	±3%	100	22	250	0.8	1.1	2.90	2.18	110	MHQ1005PR13HTD25
130	±5%	100	22	250	0.8	1.1	2.90	2.18	110	MHQ1005PR13JTD25
150	±2%	100	22	250	0.8	1.0	3.00	2.03	110	MHQ1005PR15GTD25
150	±3%	100	22	250	0.8	1.0	3.00	2.03	110	MHQ1005PR15HTD25
150	±5%	100	22	250	0.8	1.0	3.00	2.03	110	MHQ1005PR15JTD25
160	±2%	100	22	250	0.7	1.0	5.80	4.79	90	MHQ1005PR16GTD25
160	±3%	100	22	250	0.7	1.0	5.80	4.79	90	MHQ1005PR16HTD25
160	±5%	100	22	250	0.7	1.0	5.80	4.79	90	MHQ1005PR16JTD25
180	±2%	100	18	250	0.6	0.9	6.00	4.86	90	MHQ1005PR18GTD25
180	±3%	100	18	250	0.6	0.9	6.00	4.86	90	MHQ1005PR18HTD25
180	±5%	100	18	250	0.6	0.9	6.00	4.86	90	MHQ1005PR18JTD25
200	±2%	100	18	250	0.6	0.9	6.20	5.06	80	MHQ1005PR20GTD25
200	±3%	100	18	250	0.6	0.9	6.20	5.06	80	MHQ1005PR20HTD25
200	±5%	100	18	250	0.6	0.9	6.20	5.06	80	MHQ1005PR20JTD25
220	±2%	100	18	250	0.6	0.8	6.60	5.38	80	MHQ1005PR22GTD25
220	±3%	100	18	250	0.6	0.8	6.60	5.38	80	MHQ1005PR22HTD25
220	±5%	100	18	250	0.6	0.8	6.60	5.38	80	MHQ1005PR22JTD25
240	±2%	100	18	250	0.6	0.9	6.80	5.58	80	MHQ1005PR24GTD25
240	±3%	100	18	250	0.6	0.9	6.80	5.58	80	MHQ1005PR24HTD25
240	±5%	100	18	250	0.6	0.9	6.80	5.58	80	MHQ1005PR24JTD25
270	±2%	100	18	250	0.6	0.9	7.00	5.74	80	MHQ1005PR27GTD25
270	±3%	100	18	250	0.6	0.9	7.00	5.74	80	MHQ1005PR27HTD25
270	±5%	100	18	250	0.6	0.9	7.00	5.74	80	MHQ1005PR27JTD25
300	±2%	50	13	100	0.48	0.7	7.80	6.38	80	MHQ1005PR30GTD25
300	±3%	50	13	100	0.48	0.7	7.80	6.38	80	MHQ1005PR30HTD25
300	±5%	50	13	100	0.48	0.7	7.80	6.38	80	MHQ1005PR30JTD25
330	±2%	50	13	100	0.48	0.67	8.20	6.64	80	MHQ1005PR33GTD25
330	±3%	50	13	100	0.48	0.67	8.20	6.64	80	MHQ1005PR33HTD25
330	±5%	50	13	100	0.48	0.67	8.20	6.64	80	MHQ1005PR33JTD25
360	±2%	50	13	100	0.45	0.65	8.40	6.91	80	MHQ1005PR36GTD25
360	±3%	50	13	100	0.45	0.65	8.40	6.91	80	MHQ1005PR36HTD25
360	±5%	50	13	100	0.45	0.65	8.40	6.91	80	MHQ1005PR36JTD25
390	±2%	50	13	100	0.45	0.64	8.80	7.20	70	MHQ1005PR39GTD25
390	±3%	50	13	100	0.45	0.64	8.80	7.20	70	MHQ1005PR39HTD25
390	±5%	50	13	100	0.45	0.64	8.80	7.20	70	MHQ1005PR39JTD25
430	±2%	50	13	100	0.38	0.56	9.60	7.88	70	MHQ1005PR43GTD25
430	±3%	50	13	100	0.38	0.56	9.60	7.88	70	MHQ1005PR43HTD25
430	±5%	50	13	100	0.38	0.56	9.60	7.88	70	MHQ1005PR43JTD25
470	±2%	50	13	100	0.38	0.59	9.60	7.90	70	MHQ1005PR47GTD25
470	±3%	50	13	100	0.38	0.59	9.60	7.90	70	MHQ1005PR47HTD25
470	±5%	50	13	100	0.38	0.59	9.60	7.90	70	MHQ1005PR47JTD25
510	±2%	50	13	100	0.36	0.52	10.2	8.44	70	MHQ1005PR51GTD25
510	±3%	50	13	100	0.36	0.52	10.2	8.44	70	MHQ1005PR51HTD25
510	±5%	50	13	100	0.36	0.52	10.2	8.44	70	MHQ1005PR51JTD25
560	±2%	50	13	100	0.36	0.51	10.6	8.78	70	MHQ1005PR56GTD25
560	±3%	50	13	100	0.36	0.51	10.6	8.78	70	MHQ1005PR56HTD25
560	±5%	50	13	100	0.36	0.51	10.6	8.78	70	MHQ1005PR56JTD25

Measurement equipment

Measurement item	Product No.	Manufacturer
L, Q	4291B+16193A	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. (7/17)
Please note that the contents may change without any prior notice due to reasons such as upgrading.

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inductor_automotive_high-frequency_mhq1005p_en

MHQ1005P 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			
0.7	0.7	0.7	0.7	0.7	71min.	90min.	139min.	148min.	177min.			MHQ1005P0N7BTD25
0.7	0.7	0.7	0.7	0.7	71min.	90min.	139min.	148min.	177min.			MHQ1005P0N7CTD25
0.8	0.8	0.8	0.8	0.8	71min.	90min.	139min.	148min.	177min.			MHQ1005P0N8BTD25
0.8	0.8	0.8	0.8	0.8	71min.	90min.	139min.	148min.	177min.			MHQ1005P0N8CTD25
0.9	0.9	0.9	0.9	0.9	71min.	90min.	139min.	148min.	177min.			MHQ1005P0N9BTD25
0.9	0.9	0.9	0.9	0.9	71min.	90min.	139min.	148min.	177min.			MHQ1005P0N9CTD25
1.0	1.0	1.0	1.0	1.0	71min.	90min.	139min.	148min.	177min.			MHQ1005P1N0BTD25
1.0	1.0	1.0	1.0	1.0	71min.	90min.	139min.	148min.	177min.			MHQ1005P1N0CTD25
1.0	1.0	1.0	1.0	1.0	71min.	90min.	139min.	148min.	177min.			MHQ1005P1N0STD25
1.1	1.1	1.1	1.1	1.1	71min.	90min.	139min.	148min.	177min.			MHQ1005P1N1BTD25
1.1	1.1	1.1	1.1	1.1	71min.	90min.	139min.	148min.	177min.			MHQ1005P1N1CTD25
1.1	1.1	1.1	1.1	1.1	71min.	90min.	139min.	148min.	177min.			MHQ1005P1N1STD25
1.2	1.2	1.2	1.2	1.2	71min.	90min.	139min.	148min.	177min.			MHQ1005P1N2BTD25
1.2	1.2	1.2	1.2	1.2	71min.	90min.	139min.	148min.	177min.			MHQ1005P1N2CTD25
1.2	1.2	1.2	1.2	1.2	71min.	90min.	139min.	148min.	177min.			MHQ1005P1N2STD25
1.3	1.3	1.3	1.3	1.3	71	90	139	148	178			MHQ1005P1N3BTD25
1.3	1.3	1.3	1.3	1.3	71	90	139	148	178			MHQ1005P1N3CTD25
1.3	1.3	1.3	1.3	1.3	71	90	139	148	178			MHQ1005P1N3STD25
1.4	1.4	1.4	1.4	1.4	88	103	173	178	203			MHQ1005P1N4BTD25
1.4	1.4	1.4	1.4	1.4	88	103	173	178	203			MHQ1005P1N4CTD25
1.4	1.4	1.4	1.4	1.4	88	103	173	178	203			MHQ1005P1N4STD25
1.5	1.5	1.5	1.5	1.5	66	76	124	133	151			MHQ1005P1N5BTD25
1.5	1.5	1.5	1.5	1.5	66	76	124	133	151			MHQ1005P1N5CTD25
1.5	1.5	1.5	1.5	1.5	66	76	124	133	151			MHQ1005P1N5STD25
1.6	1.6	1.6	1.6	1.6	70	88	147	151	171			MHQ1005P1N6BTD25
1.6	1.6	1.6	1.6	1.6	70	88	147	151	171			MHQ1005P1N6CTD25
1.6	1.6	1.6	1.6	1.6	70	88	147	151	171			MHQ1005P1N6STD25
1.7	1.7	1.7	1.7	1.7	63	80	140	151	179			MHQ1005P1N7BTD25
1.7	1.7	1.7	1.7	1.7	63	80	140	151	179			MHQ1005P1N7CTD25
1.7	1.7	1.7	1.7	1.7	63	80	140	151	179			MHQ1005P1N7STD25
1.8	1.8	1.8	1.8	1.8	60	75	125	130	150			MHQ1005P1N8BTD25
1.8	1.8	1.8	1.8	1.8	60	75	125	130	150			MHQ1005P1N8CTD25
1.8	1.8	1.8	1.8	1.8	60	75	125	130	150			MHQ1005P1N8STD25
1.9	1.9	1.9	1.9	1.9	53	68	119	126	150			MHQ1005P1N9BTD25
1.9	1.9	1.9	1.9	1.9	53	68	119	126	150			MHQ1005P1N9CTD25
1.9	1.9	1.9	1.9	1.9	53	68	119	126	150			MHQ1005P1N9STD25
2.0	2.0	2.0	2.0	2.0	60	74	122	129	146			MHQ1005P2N0BTD25
2.0	2.0	2.0	2.0	2.0	60	74	122	129	146			MHQ1005P2N0CTD25
2.0	2.0	2.0	2.0	2.0	60	74	122	129	146			MHQ1005P2N0STD25
2.1	2.1	2.1	2.1	2.1	54	70	121	129	152			MHQ1005P2N1BTD25
2.1	2.1	2.1	2.1	2.1	54	70	121	129	152			MHQ1005P2N1CTD25
2.1	2.1	2.1	2.1	2.1	54	70	121	129	152			MHQ1005P2N1STD25
2.2	2.2	2.2	2.2	2.2	54	68	108	116	131			MHQ1005P2N2BTD25
2.2	2.2	2.2	2.2	2.2	54	68	108	116	131			MHQ1005P2N2CTD25
2.2	2.2	2.2	2.2	2.2	54	68	108	116	131			MHQ1005P2N2STD25

Measurement equipment

Product No.	Manufacturer
4291B+16193A	Keysight Technologies

* Equivalent measurement equipment may be used.

MHQ1005P 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	
2.3	2.3	2.3	2.3	2.3	50	64	101	106	119	MHQ1005P2N3BTD25
2.3	2.3	2.3	2.3	2.3	50	64	101	106	119	MHQ1005P2N3CTD25
2.3	2.3	2.3	2.3	2.3	50	64	101	106	119	MHQ1005P2N3STD25
2.4	2.3	2.4	2.4	2.4	50	64	105	110	125	MHQ1005P2N4BTD25
2.4	2.3	2.4	2.4	2.4	50	64	105	110	125	MHQ1005P2N4CTD25
2.4	2.3	2.4	2.4	2.4	50	64	105	110	125	MHQ1005P2N4STD25
2.5	2.5	2.5	2.5	2.6	50	65	110	114	135	MHQ1005P2N5BTD25
2.5	2.5	2.5	2.5	2.6	50	65	110	114	135	MHQ1005P2N5CTD25
2.5	2.5	2.5	2.5	2.6	50	65	110	114	135	MHQ1005P2N5STD25
2.5	2.5	2.6	2.6	2.7	48	65	103	107	122	MHQ1005P2N6BTD25
2.5	2.5	2.6	2.6	2.7	48	65	103	107	122	MHQ1005P2N6CTD25
2.5	2.5	2.6	2.6	2.7	48	65	103	107	122	MHQ1005P2N6STD25
2.6	2.6	2.7	2.7	2.8	49	61	98	102	116	MHQ1005P2N7BTD25
2.6	2.6	2.7	2.7	2.8	49	61	98	102	116	MHQ1005P2N7CTD25
2.6	2.6	2.7	2.7	2.8	49	61	98	102	116	MHQ1005P2N7STD25
2.7	2.7	2.8	2.8	2.9	46	58	100	105	123	MHQ1005P2N8BTD25
2.7	2.7	2.8	2.8	2.9	46	58	100	105	123	MHQ1005P2N8CTD25
2.7	2.7	2.8	2.8	2.9	46	58	100	105	123	MHQ1005P2N8STD25
2.8	2.8	2.9	2.9	3.0	45	58	99	103	120	MHQ1005P2N9BTD25
2.8	2.8	2.9	2.9	3.0	45	58	99	103	120	MHQ1005P2N9CTD25
2.8	2.8	2.9	2.9	3.0	45	58	99	103	120	MHQ1005P2N9STD25
2.9	2.9	3.0	3.0	3.1	49	62	102	106	120	MHQ1005P3N0BTD25
2.9	2.9	3.0	3.0	3.1	49	62	102	106	120	MHQ1005P3N0CTD25
2.9	2.9	3.0	3.0	3.1	49	62	102	106	120	MHQ1005P3N0STD25
3.0	3.0	3.1	3.1	3.2	45	58	99	104	121	MHQ1005P3N1BTD25
3.0	3.0	3.1	3.1	3.2	45	58	99	104	121	MHQ1005P3N1CTD25
3.0	3.0	3.1	3.1	3.2	45	58	99	104	121	MHQ1005P3N1STD25
3.1	3.1	3.2	3.2	3.3	45	58	99	106	121	MHQ1005P3N2BTD25
3.1	3.1	3.2	3.2	3.3	45	58	99	106	121	MHQ1005P3N2CTD25
3.1	3.1	3.2	3.2	3.3	45	58	99	106	121	MHQ1005P3N2STD25
3.2	3.2	3.3	3.4	3.4	48	60	96	101	115	MHQ1005P3N3BTD25
3.2	3.2	3.3	3.4	3.4	48	60	96	101	115	MHQ1005P3N3CTD25
3.2	3.2	3.3	3.4	3.4	48	60	96	101	115	MHQ1005P3N3STD25
3.3	3.3	3.4	3.5	3.5	45	57	96	102	118	MHQ1005P3N4BTD25
3.3	3.3	3.4	3.5	3.5	45	57	96	102	118	MHQ1005P3N4CTD25
3.3	3.3	3.4	3.5	3.5	45	57	96	102	118	MHQ1005P3N4STD25
3.4	3.4	3.5	3.6	3.6	43	57	89	92	104	MHQ1005P3N5BTD25
3.4	3.4	3.5	3.6	3.6	43	57	89	92	104	MHQ1005P3N5CTD25
3.4	3.4	3.5	3.6	3.6	43	57	89	92	104	MHQ1005P3N5STD25
3.5	3.5	3.6	3.6	3.7	43	56	91	96	110	MHQ1005P3N6BTD25
3.5	3.5	3.6	3.6	3.7	43	56	91	96	110	MHQ1005P3N6CTD25
3.5	3.5	3.6	3.6	3.7	43	56	91	96	110	MHQ1005P3N6STD25
3.6	3.6	3.7	3.8	3.9	46	57	96	100	114	MHQ1005P3N7BTD25
3.6	3.6	3.7	3.8	3.9	46	57	96	100	114	MHQ1005P3N7CTD25
3.6	3.6	3.7	3.8	3.9	46	57	96	100	114	MHQ1005P3N7STD25

Measurement equipment

Product No.	Manufacturer
4291B+16193A	Keysight Technologies

* Equivalent measurement equipment may be used.

MHQ1005P 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	3.9	3.9	4.0	45	59	93	96	109	MHQ1005P3N8BTD25
3.7	3.7	3.9	3.9	4.0	45	59	93	96	109	MHQ1005P3N8CTD25
3.7	3.7	3.9	3.9	4.0	45	59	93	96	109	MHQ1005P3N8STD25
3.8	3.8	4.0	4.0	4.1	48	61	96	99	111	MHQ1005P3N9BTD25
3.8	3.8	4.0	4.0	4.1	48	61	96	99	111	MHQ1005P3N9CTD25
3.8	3.8	4.0	4.0	4.1	48	61	96	99	111	MHQ1005P3N9STD25
4.0	4.0	4.2	4.3	4.4	46	59	98	101	115	MHQ1005P4N1BTD25
4.0	4.0	4.2	4.3	4.4	46	59	98	101	115	MHQ1005P4N1CTD25
4.0	4.0	4.2	4.3	4.4	46	59	98	101	115	MHQ1005P4N1STD25
4.2	4.2	4.4	4.5	4.6	47	60	95	97	107	MHQ1005P4N3BTD25
4.2	4.2	4.4	4.5	4.6	47	60	95	97	107	MHQ1005P4N3CTD25
4.2	4.2	4.4	4.5	4.6	47	60	95	97	107	MHQ1005P4N3STD25
4.6	4.6	4.8	4.9	5.0	44	56	89	93	102	MHQ1005P4N7BTD25
4.6	4.6	4.8	4.9	5.0	44	56	89	93	102	MHQ1005P4N7CTD25
4.6	4.6	4.8	4.9	5.0	44	56	89	93	102	MHQ1005P4N7STD25
5.0	5.0	5.2	5.3	5.5	43	55	86	90	99	MHQ1005P5N1BTD25
5.0	5.0	5.2	5.3	5.5	43	55	86	90	99	MHQ1005P5N1CTD25
5.0	5.0	5.2	5.3	5.5	43	55	86	90	99	MHQ1005P5N1STD25
5.5	5.5	5.8	5.9	6.1	43	54	84	87	94	MHQ1005P5N6BTD25
5.5	5.5	5.8	5.9	6.1	43	54	84	87	94	MHQ1005P5N6CTD25
5.5	5.5	5.8	5.9	6.1	43	54	84	87	94	MHQ1005P5N6STD25
5.7	5.7	6.1	6.2	6.5	43	57	84	87	94	MHQ1005P5N8BTD25
5.7	5.7	6.1	6.2	6.5	43	57	84	87	94	MHQ1005P5N8CTD25
5.7	5.7	6.1	6.2	6.5	43	57	84	87	94	MHQ1005P5N8STD25
6.1	6.1	6.6	6.7	7.0	45	57	85	87	93	MHQ1005P6N2BTD25
6.1	6.1	6.6	6.7	7.0	45	57	85	87	93	MHQ1005P6N2CTD25
6.1	6.1	6.6	6.7	7.0	45	57	85	87	93	MHQ1005P6N2STD25
6.7	6.7	7.3	7.5	7.9	45	58	85	88	92	MHQ1005P6N8GTD25
6.7	6.7	7.3	7.5	7.9	45	58	85	88	92	MHQ1005P6N8HTD25
6.7	6.7	7.3	7.5	7.9	45	58	85	88	92	MHQ1005P6N8JTD25
7.1	7.2	7.7	7.9	8.3	40	52	77	80	84	MHQ1005P7N3GTD25
7.1	7.2	7.7	7.9	8.3	40	52	77	80	84	MHQ1005P7N3HTD25
7.1	7.2	7.7	7.9	8.3	40	52	77	80	84	MHQ1005P7N3JTD25
7.3	7.4	7.9	8.1	8.5	42	54	80	83	88	MHQ1005P7N5GTD25
7.3	7.4	7.9	8.1	8.5	42	54	80	83	88	MHQ1005P7N5HTD25
7.3	7.4	7.9	8.1	8.5	42	54	80	83	88	MHQ1005P7N5JTD25
8.0	8.1	9.0	9.4	10.0	44	56	80	81	82	MHQ1005P8N2GTD25
8.0	8.1	9.0	9.4	10.0	44	56	80	81	82	MHQ1005P8N2HTD25
8.0	8.1	9.0	9.4	10.0	44	56	80	81	82	MHQ1005P8N2JTD25
8.5	8.6	9.6	10.0	10.8	42	52	78	79	80	MHQ1005P8N7GTD25
8.5	8.6	9.6	10.0	10.8	42	52	78	79	80	MHQ1005P8N7HTD25
8.5	8.6	9.6	10.0	10.8	42	52	78	79	80	MHQ1005P8N7JTD25
8.9	9.1	10.1	10.5	11.3	43	54	77	78	79	MHQ1005P9N1GTD25
8.9	9.1	10.1	10.5	11.3	43	54	77	78	79	MHQ1005P9N1HTD25
8.9	9.1	10.1	10.5	11.3	43	54	77	78	79	MHQ1005P9N1JTD25

Measurement equipment

Product No.	Manufacturer
4291B+16193A	Keysight Technologies

* Equivalent measurement equipment may be used.

MHQ1005P 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	
9.3	9.4	10.6	11.1	12.0	42	54	75	75	75	MHQ1005P9N5GTD25
9.3	9.4	10.6	11.1	12.0	42	54	75	75	75	MHQ1005P9N5HTD25
9.3	9.4	10.6	11.1	12.0	42	54	75	75	75	MHQ1005P9N5JTD25
10	10	11	12	13	42	54	73	74	74	MHQ1005P10NGTD25
10	10	11	12	13	42	54	73	74	74	MHQ1005P10NHTD25
10	10	11	12	13	42	54	73	74	74	MHQ1005P10NJTD25
11	11	13	13	14	41	52	70	70	69	MHQ1005P11NGTD25
11	11	13	13	14	41	52	70	70	69	MHQ1005P11NHTD25
11	11	13	13	14	41	52	70	70	69	MHQ1005P11NJTD25
12	12	14	15	17	40	50	66	65	61	MHQ1005P12NGTD25
12	12	14	15	17	40	50	66	65	61	MHQ1005P12NHTD25
12	12	14	15	17	40	50	66	65	61	MHQ1005P12NJTD25
13	13	16	17	19	42	53	66	66	61	MHQ1005P13NGTD25
13	13	16	17	19	42	53	66	66	61	MHQ1005P13NHTD25
13	13	16	17	19	42	53	66	66	61	MHQ1005P13NJTD25
15	15	19	21	26	39	48	57	54	46	MHQ1005P15NGTD25
15	15	19	21	26	39	48	57	54	46	MHQ1005P15NHTD25
15	15	19	21	26	39	48	57	54	46	MHQ1005P15NJTD25
16	16	20	21	25	34	43	54	52	49	MHQ1005P16NGTD25
16	16	20	21	25	34	43	54	52	49	MHQ1005P16NHTD25
16	16	20	21	25	34	43	54	52	49	MHQ1005P16NJTD25
18	18	23	25	30	39	49	60	57	51	MHQ1005P18NGTD25
18	18	23	25	30	39	49	60	57	51	MHQ1005P18NHTD25
18	18	23	25	30	39	49	60	57	51	MHQ1005P18NJTD25
19	19	25	28	35	39	49	59	55	46	MHQ1005P19NGTD25
19	19	25	28	35	39	49	59	55	46	MHQ1005P19NHTD25
19	19	25	28	35	39	49	59	55	46	MHQ1005P19NJTD25
20	20	26	29	35	38	47	56	53	43	MHQ1005P20NGTD25
20	20	26	29	35	38	47	56	53	43	MHQ1005P20NHTD25
20	20	26	29	35	38	47	56	53	43	MHQ1005P20NJTD25
22	23	31	35	—	34	42	47	43	—	MHQ1005P22NGTD25
22	23	31	35	—	34	42	47	43	—	MHQ1005P22NHTD25
22	23	31	35	—	34	42	47	43	—	MHQ1005P22NJTD25
23	24	33	37	—	41	50	53	48	—	MHQ1005P23NGTD25
23	24	33	37	—	41	50	53	48	—	MHQ1005P23NHTD25
23	24	33	37	—	41	50	53	48	—	MHQ1005P23NJTD25
24	25	35	41	—	39	49	50	44	—	MHQ1005P24NGTD25
24	25	35	41	—	39	49	50	44	—	MHQ1005P24NHTD25
24	25	35	41	—	39	49	50	44	—	MHQ1005P24NJTD25
27	28	42	50	—	37	45	44	37	—	MHQ1005P27NGTD25
27	28	42	50	—	37	45	44	37	—	MHQ1005P27NHTD25
27	28	42	50	—	37	45	44	37	—	MHQ1005P27NJTD25
30	32	55	—	—	33	40	34	—	—	MHQ1005P30NGTD25
30	32	55	—	—	33	40	34	—	—	MHQ1005P30NHTD25
30	32	55	—	—	33	40	34	—	—	MHQ1005P30NJTD25

Measurement equipment

Product No.	Manufacturer
4291B+16193A	Keysight Technologies

* Equivalent measurement equipment may be used.

MHQ1005P 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	
33	35	59	—	—	37	44	37	—	—	MHQ1005P33NGTD25
33	35	59	—	—	37	44	37	—	—	MHQ1005P33NHTD25
33	35	59	—	—	37	44	37	—	—	MHQ1005P33NJTD25
36	39	69	—	—	35	42	32	—	—	MHQ1005P36NGTD25
36	39	69	—	—	35	42	32	—	—	MHQ1005P36NHTD25
36	39	69	—	—	35	42	32	—	—	MHQ1005P36NJTD25
40	43	—	—	—	33	38	—	—	—	MHQ1005P39NGTD25
40	43	—	—	—	33	38	—	—	—	MHQ1005P39NHTD25
40	43	—	—	—	33	38	—	—	—	MHQ1005P39NJTD25
41	44	—	—	—	36	42	—	—	—	MHQ1005P40NGTD25
41	44	—	—	—	36	42	—	—	—	MHQ1005P40NHTD25
41	44	—	—	—	36	42	—	—	—	MHQ1005P40NJTD25
44	47	—	—	—	36	42	—	—	—	MHQ1005P43NGTD25
44	47	—	—	—	36	42	—	—	—	MHQ1005P43NHTD25
44	47	—	—	—	36	42	—	—	—	MHQ1005P43NJTD25
48	53	—	—	—	34	38	—	—	—	MHQ1005P47NGTD25
48	53	—	—	—	34	38	—	—	—	MHQ1005P47NHTD25
48	53	—	—	—	34	38	—	—	—	MHQ1005P47NJTD25
52	58	—	—	—	35	40	—	—	—	MHQ1005P51NGTD25
52	58	—	—	—	35	40	—	—	—	MHQ1005P51NHTD25
52	58	—	—	—	35	40	—	—	—	MHQ1005P51NJTD25
58	65	—	—	—	34	37	—	—	—	MHQ1005P56NGTD25
58	65	—	—	—	34	37	—	—	—	MHQ1005P56NHTD25
58	65	—	—	—	34	37	—	—	—	MHQ1005P56NJTD25
65	74	—	—	—	34	37	—	—	—	MHQ1005P62NGTD25
65	74	—	—	—	34	37	—	—	—	MHQ1005P62NHTD25
65	74	—	—	—	34	37	—	—	—	MHQ1005P62NJTD25
72	82	—	—	—	35	37	—	—	—	MHQ1005P68NGTD25
72	82	—	—	—	35	37	—	—	—	MHQ1005P68NHTD25
72	82	—	—	—	35	37	—	—	—	MHQ1005P68NJTD25
77	90	—	—	—	34	36	—	—	—	MHQ1005P72NGTD25
77	90	—	—	—	34	36	—	—	—	MHQ1005P72NHTD25
77	90	—	—	—	34	36	—	—	—	MHQ1005P72NJTD25
80	93	—	—	—	35	37	—	—	—	MHQ1005P75NGTD25
80	93	—	—	—	35	37	—	—	—	MHQ1005P75NHTD25
80	93	—	—	—	35	37	—	—	—	MHQ1005P75NJTD25
88	107	—	—	—	35	35	—	—	—	MHQ1005P82NGTD25
88	107	—	—	—	35	35	—	—	—	MHQ1005P82NHTD25
88	107	—	—	—	35	35	—	—	—	MHQ1005P82NJTD25
98	121	—	—	—	33	32	—	—	—	MHQ1005P91NGTD25
98	121	—	—	—	33	32	—	—	—	MHQ1005P91NHTD25
98	121	—	—	—	33	32	—	—	—	MHQ1005P91NJTD25
111	143	—	—	—	33	33	—	—	—	MHQ1005PR10GTD25
111	143	—	—	—	33	33	—	—	—	MHQ1005PR10HTD25
111	143	—	—	—	33	33	—	—	—	MHQ1005PR10JTD25

Measurement equipment

Product No.	Manufacturer
4291B+16193A	Keysight Technologies

* Equivalent measurement equipment may be used.

MHQ1005P 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	
124	169	—	—	—	31	28	—	—	—	MHQ1005PR11GTD25
124	169	—	—	—	31	28	—	—	—	MHQ1005PR11HTD25
124	169	—	—	—	31	28	—	—	—	MHQ1005PR11JTD25
138	197	—	—	—	30	26	—	—	—	MHQ1005PR12GTD25
138	197	—	—	—	30	26	—	—	—	MHQ1005PR12HTD25
138	197	—	—	—	30	26	—	—	—	MHQ1005PR12JTD25
150	220	—	—	—	31	23	—	—	—	MHQ1005PR13GTD25
150	220	—	—	—	31	23	—	—	—	MHQ1005PR13HTD25
150	220	—	—	—	31	23	—	—	—	MHQ1005PR13JTD25
177	276	—	—	—	30	22	—	—	—	MHQ1005PR15GTD25
177	276	—	—	—	30	22	—	—	—	MHQ1005PR15HTD25
177	276	—	—	—	30	22	—	—	—	MHQ1005PR15JTD25
194	—	—	—	—	28	—	—	—	—	MHQ1005PR16GTD25
194	—	—	—	—	28	—	—	—	—	MHQ1005PR16HTD25
194	—	—	—	—	28	—	—	—	—	MHQ1005PR16JTD25
223	—	—	—	—	28	—	—	—	—	MHQ1005PR18GTD25
223	—	—	—	—	28	—	—	—	—	MHQ1005PR18HTD25
223	—	—	—	—	28	—	—	—	—	MHQ1005PR18JTD25
254	—	—	—	—	27	—	—	—	—	MHQ1005PR20GTD25
254	—	—	—	—	27	—	—	—	—	MHQ1005PR20HTD25
254	—	—	—	—	27	—	—	—	—	MHQ1005PR20JTD25
285	—	—	—	—	27	—	—	—	—	MHQ1005PR22GTD25
285	—	—	—	—	27	—	—	—	—	MHQ1005PR22HTD25
285	—	—	—	—	27	—	—	—	—	MHQ1005PR22JTD25
317	—	—	—	—	26	—	—	—	—	MHQ1005PR24GTD25
317	—	—	—	—	26	—	—	—	—	MHQ1005PR24HTD25
317	—	—	—	—	26	—	—	—	—	MHQ1005PR24JTD25
375	—	—	—	—	25	—	—	—	—	MHQ1005PR27GTD25
375	—	—	—	—	25	—	—	—	—	MHQ1005PR27HTD25
375	—	—	—	—	25	—	—	—	—	MHQ1005PR27JTD25
448	—	—	—	—	23	—	—	—	—	MHQ1005PR30GTD25
448	—	—	—	—	23	—	—	—	—	MHQ1005PR30HTD25
448	—	—	—	—	23	—	—	—	—	MHQ1005PR30JTD25
518	—	—	—	—	22	—	—	—	—	MHQ1005PR33GTD25
518	—	—	—	—	22	—	—	—	—	MHQ1005PR33HTD25
518	—	—	—	—	22	—	—	—	—	MHQ1005PR33JTD25
599	—	—	—	—	21	—	—	—	—	MHQ1005PR36GTD25
599	—	—	—	—	21	—	—	—	—	MHQ1005PR36HTD25
599	—	—	—	—	21	—	—	—	—	MHQ1005PR36JTD25
693	—	—	—	—	19	—	—	—	—	MHQ1005PR39GTD25
693	—	—	—	—	19	—	—	—	—	MHQ1005PR39HTD25
693	—	—	—	—	19	—	—	—	—	MHQ1005PR39JTD25
—	—	—	—	—	—	—	—	—	—	MHQ1005PR43GTD25
—	—	—	—	—	—	—	—	—	—	MHQ1005PR43HTD25
—	—	—	—	—	—	—	—	—	—	MHQ1005PR43JTD25
—	—	—	—	—	—	—	—	—	—	MHQ1005PR47GTD25
—	—	—	—	—	—	—	—	—	—	MHQ1005PR47HTD25
—	—	—	—	—	—	—	—	—	—	MHQ1005PR47JTD25
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—	—	—	—	—	—	—	—	—	—	MHQ1005PR51HTD25
—	—	—	—	—	—	—	—	—	—	MHQ1005PR51JTD25
—	—	—	—	—	—	—	—	—	—	MHQ1005PR56GTD25
—	—	—	—	—	—	—	—	—	—	MHQ1005PR56HTD25
—	—	—	—	—	—	—	—	—	—	MHQ1005PR56JTD25

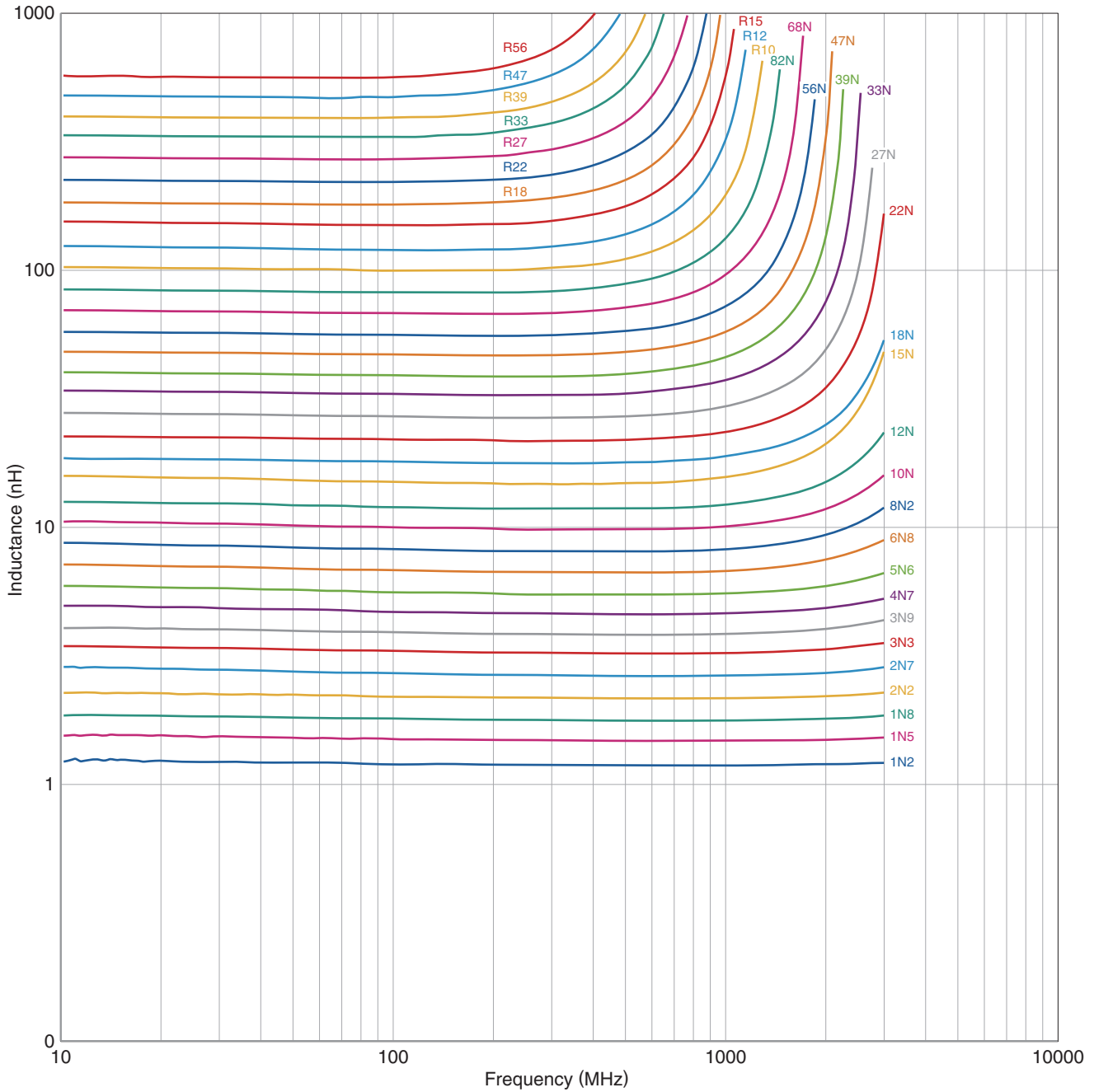
Measurement equipment

Product No.	Manufacturer
4291B+16193A	Keysight Technologies

* Equivalent measurement equipment may be used.

MHQ1005P type

L FREQUENCY CHARACTERISTICS (EXAMPLE)



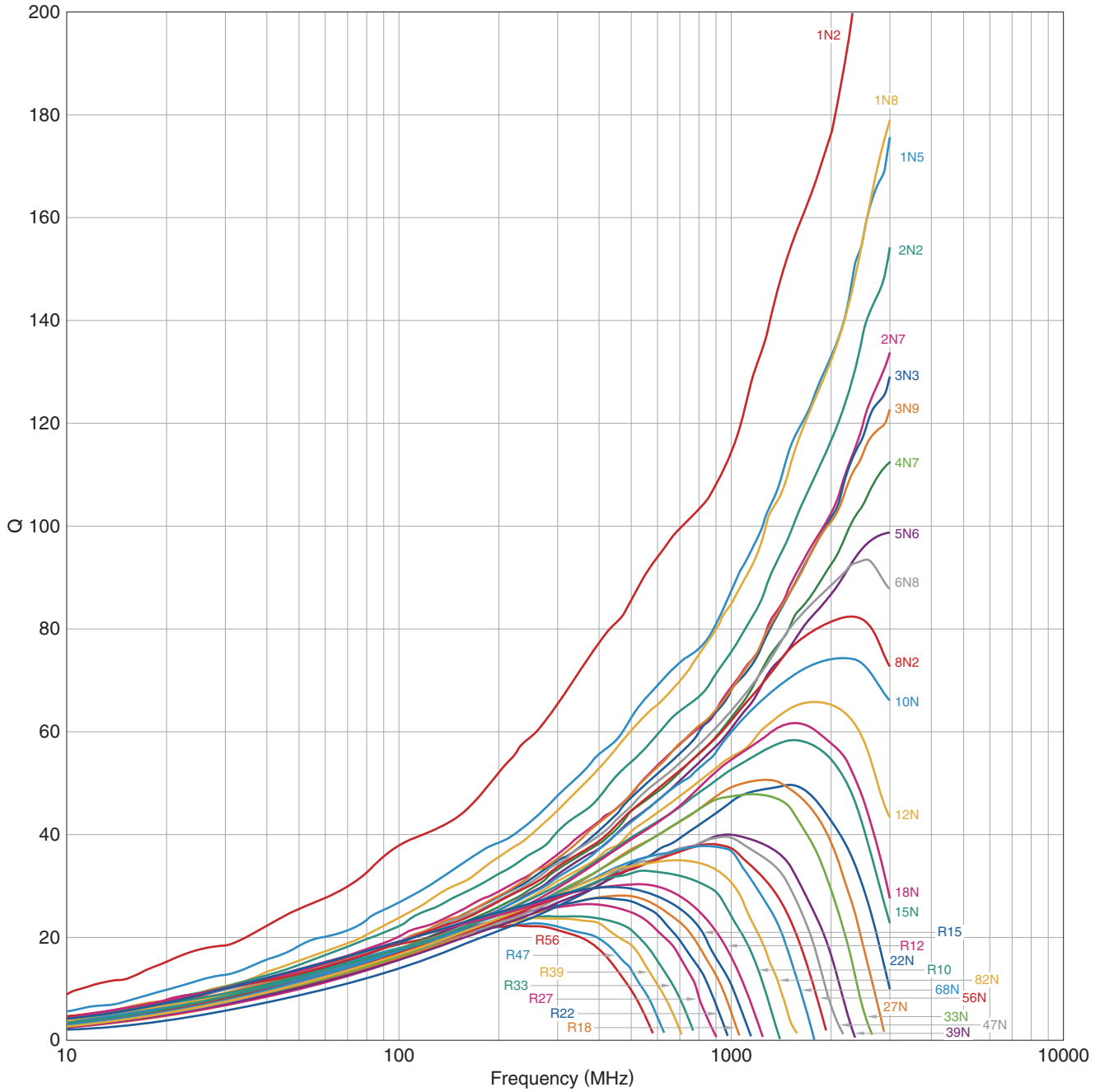
Measurement equipment

Product No.	Manufacturer
E4991+16193A	Keysight Technologies

* Equivalent measurement equipment may be used.

MHQ1005P type

Q FREQUENCY CHARACTERISTICS (EXAMPLE)



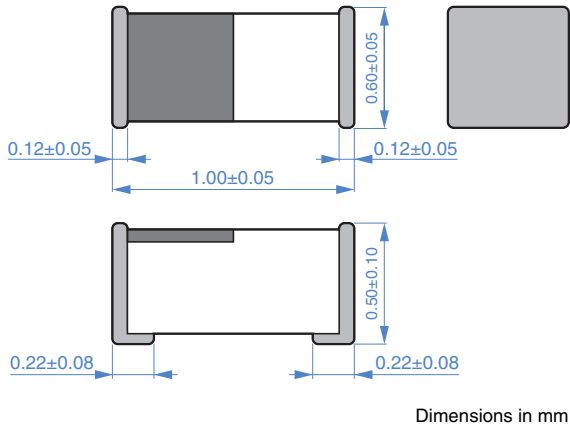
Measurement equipment

Product No.	Manufacturer
E4991+16193A	Keysight Technologies

* Equivalent measurement equipment may be used.

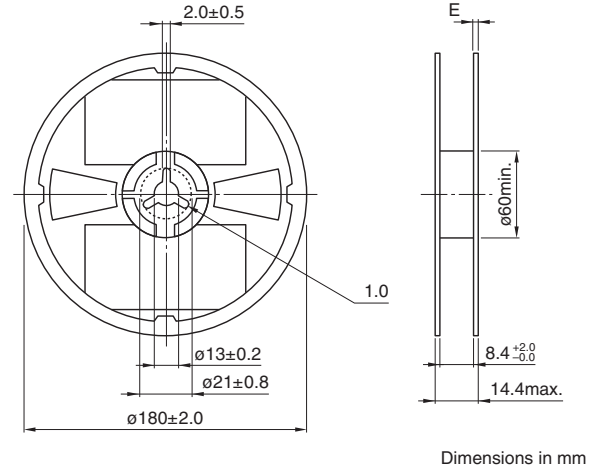
MHQ1005P type

SHAPE & DIMENSIONS

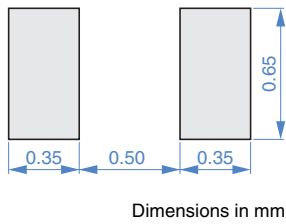


PACKAGING STYLE

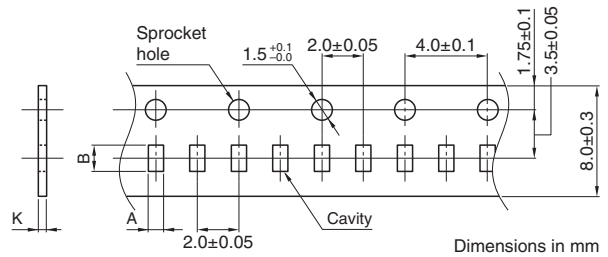
REEL DIMENSIONS



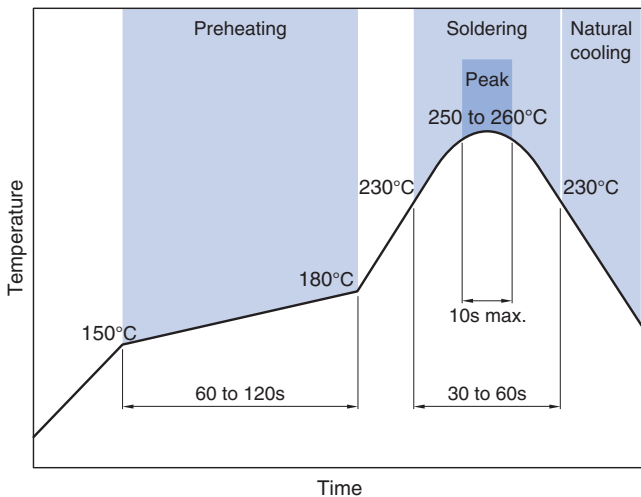
RECOMMENDED LAND PATTERN



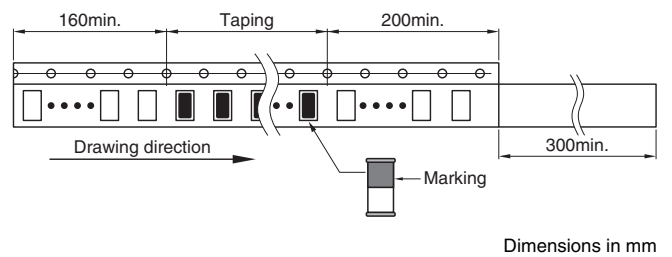
TAPE DIMENSIONS



RECOMMENDED REFLOW PROFILE



Type	A	B	K
MHQ1005P	0.75±0.10	1.15±0.10	0.8 max.



PACKAGE QUANTITY

Package quantity	10000 pcs/reel
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TEMPERATURE RANGE, INDIVIDUAL WEIGHT

Operating temperature range	Storage temperature range*	Individual weight
-55 to +125 °C	-55 to +125 °C	1 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.

SAFETY REMINDERS

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

REMINDERS

- 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.
- 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.

OUR CERTIFICATE

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