



Inductors for High Frequency Circuits

Multilayer Ceramic

MHQ-P Series (For automobiles)

MHQ1005P_{Type}

MHQ1005P

1005 [0402 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 (electric trains, ships, etc.)
- (3) Medical equipment
- (4) Power-generation control equipment
- (5) Atomic energy-related equipment
- (6) Seabed equipment
- (7) Transportation control equipment

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

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

Inductors for High Frequency Circuits

Multilayer Ceramic

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

Overview of 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.

APPLICATION

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

PART NUMBER CONSTRUCTION

MHQ	1005		P	0N7		B		T		D25
Series name	LxWxH Dimensions (mm)		Characteristics	Inductance (nH)		Inductance tolerance		Packaging style		Internal code
	1005	1.0x0.5x0.5		1N1	1.1	B	±0.1nH	T	Taping	
				11N	11	C	±0.2nH			
						S	±0.3nH			
						G	±2%			
						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)		
MHQ1005P	−55 to +125	−55 to +125	10000	1

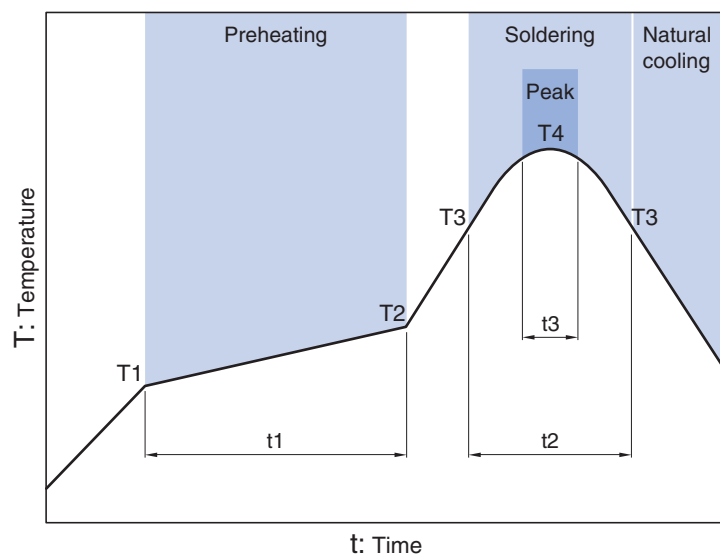
* The Storage temperature range is for after the circuit board is mounted.

- 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.

MHQ1005P Type

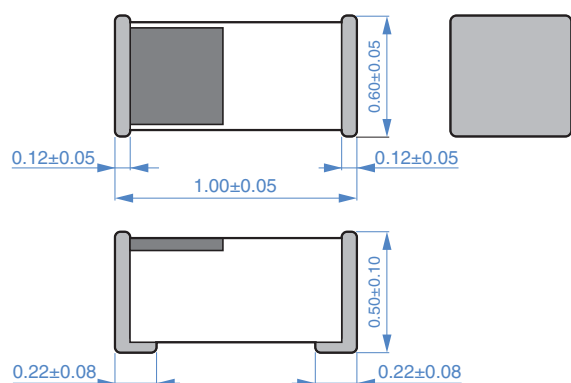
RECOMMENDED REFLOW PROFILE



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.

MHQ1005P Type

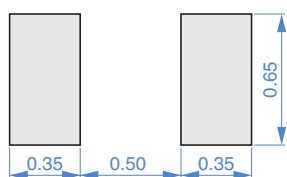
SHAPE & DIMENSIONS



Dimensions in mm



RECOMMENDED LAND PATTERN



Dimensions in mm

MHQ1005P 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.	
0.7	± 0.1 nH	100	—	250	15.0	18.3	0.03	0.01max.	1200		MHQ1005P0N7BTD25
0.7	± 0.2 nH	100	—	250	15.0	18.3	0.03	0.01max.	1200		MHQ1005P0N7CTD25
0.8	± 0.1 nH	100	—	250	15.0	18.3	0.03	0.01max.	1200		MHQ1005P0N8BTD25
0.8	± 0.2 nH	100	—	250	15.0	18.3	0.03	0.01max.	1200		MHQ1005P0N8CTD25
0.9	± 0.1 nH	100	—	250	15.0	18.6	0.03	0.01max.	1200		MHQ1005P0N9BTD25
0.9	± 0.2 nH	100	—	250	15.0	18.6	0.03	0.01max.	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	Agilent Technologies
Self-resonant frequency	8720C	Agilent Technologies
DC resistance	Type-7561	Yokogawa

* Equivalent measurement equipment may be used.

MHQ1005P 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.		
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	Agilent Technologies
Self-resonant frequency	8720C	Agilent Technologies
DC resistance	Type-7561	Yokogawa

* Equivalent measurement equipment may be used.

MHQ1005P 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.	
3.8	±0.1nH	100	23	250	5.0	7.9	0.10	0.07	900	MHQ1005P3N8BTD25
3.8	±0.2nH	100	23	250	5.0	7.9	0.10	0.07	900	MHQ1005P3N8CTD25
3.8	±0.3nH	100	23	250	5.0	7.9	0.10	0.07	900	MHQ1005P3N8STD25
3.9	±0.1nH	100	23	250	5.0	7.7	0.09	0.07	900	MHQ1005P3N9BTD25
3.9	±0.2nH	100	23	250	5.0	7.7	0.09	0.07	900	MHQ1005P3N9CTD25
3.9	±0.3nH	100	23	250	5.0	7.7	0.09	0.07	900	MHQ1005P3N9STD25
4.1	±0.1nH	100	23	250	5.0	7.7	0.10	0.07	800	MHQ1005P4N1BTD25
4.1	±0.2nH	100	23	250	5.0	7.7	0.10	0.07	800	MHQ1005P4N1CTD25
4.1	±0.3nH	100	23	250	5.0	7.7	0.10	0.07	800	MHQ1005P4N1STD25
4.3	±0.1nH	100	23	250	5.0	7.1	0.10	0.08	800	MHQ1005P4N3BTD25
4.3	±0.2nH	100	23	250	5.0	7.1	0.10	0.08	800	MHQ1005P4N3CTD25
4.3	±0.3nH	100	23	250	5.0	7.1	0.10	0.08	800	MHQ1005P4N3STD25
4.7	±0.1nH	100	23	250	5.0	7.7	0.11	0.08	800	MHQ1005P4N7BTD25
4.7	±0.2nH	100	23	250	5.0	7.7	0.11	0.08	800	MHQ1005P4N7CTD25
4.7	±0.3nH	100	23	250	5.0	7.7	0.11	0.08	800	MHQ1005P4N7STD25
5.1	±0.1nH	100	23	250	4.5	7.2	0.12	0.09	800	MHQ1005P5N1BTD25
5.1	±0.2nH	100	23	250	4.5	7.2	0.12	0.09	800	MHQ1005P5N1CTD25
5.1	±0.3nH	100	23	250	4.5	7.2	0.12	0.09	800	MHQ1005P5N1STD25
5.6	±0.1nH	100	23	250	4.5	6.5	0.13	0.10	800	MHQ1005P5N6BTD25
5.6	±0.2nH	100	23	250	4.5	6.5	0.13	0.10	800	MHQ1005P5N6CTD25
5.6	±0.3nH	100	23	250	4.5	6.5	0.13	0.10	800	MHQ1005P5N6STD25
5.8	±0.1nH	100	23	250	4.0	5.9	0.13	0.09	700	MHQ1005P5N8BTD25
5.8	±0.2nH	100	23	250	4.0	5.9	0.13	0.09	700	MHQ1005P5N8CTD25
5.8	±0.3nH	100	23	250	4.0	5.9	0.13	0.09	700	MHQ1005P5N8STD25
6.2	±0.1nH	100	23	250	4.0	5.9	0.13	0.09	700	MHQ1005P6N2BTD25
6.2	±0.2nH	100	23	250	4.0	5.9	0.13	0.09	700	MHQ1005P6N2CTD25
6.2	±0.3nH	100	23	250	4.0	5.9	0.13	0.09	700	MHQ1005P6N2STD25
6.8	±2%	100	23	250	4.0	5.8	0.14	0.10	700	MHQ1005P6N8GTD25
6.8	±3%	100	23	250	4.0	5.8	0.14	0.10	700	MHQ1005P6N8HTD25
6.8	±5%	100	23	250	4.0	5.8	0.14	0.10	700	MHQ1005P6N8JTD25
7.3	±2%	100	23	250	4.0	5.7	0.17	0.13	600	MHQ1005P7N3GTD25
7.3	±3%	100	23	250	4.0	5.7	0.17	0.13	600	MHQ1005P7N3HTD25
7.3	±5%	100	23	250	4.0	5.7	0.17	0.13	600	MHQ1005P7N3JTD25
7.5	±2%	100	23	250	4.0	5.6	0.16	0.12	600	MHQ1005P7N5GTD25
7.5	±3%	100	23	250	4.0	5.6	0.16	0.12	600	MHQ1005P7N5HTD25
7.5	±5%	100	23	250	4.0	5.6	0.16	0.12	600	MHQ1005P7N5JTD25
8.2	±2%	100	23	250	3.6	4.9	0.16	0.12	550	MHQ1005P8N2GTD25
8.2	±3%	100	23	250	3.6	4.9	0.16	0.12	550	MHQ1005P8N2HTD25
8.2	±5%	100	23	250	3.6	4.9	0.16	0.12	550	MHQ1005P8N2JTD25
8.7	±2%	100	23	250	3.5	4.7	0.17	0.13	550	MHQ1005P8N7GTD25
8.7	±3%	100	23	250	3.5	4.7	0.17	0.13	550	MHQ1005P8N7HTD25
8.7	±5%	100	23	250	3.5	4.7	0.17	0.13	550	MHQ1005P8N7JTD25
9.1	±2%	100	23	250	3.4	4.5	0.17	0.13	550	MHQ1005P9N1GTD25
9.1	±3%	100	23	250	3.4	4.5	0.17	0.13	550	MHQ1005P9N1HTD25
9.1	±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	Agilent Technologies
Self-resonant frequency	8720C	Agilent Technologies
DC resistance	Type-7561	Yokogawa

* Equivalent measurement equipment may be used.

MHQ1005P Type

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

L	L measuring frequency		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.		
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	Agilent Technologies
Self-resonant frequency	8720C	Agilent Technologies
DC resistance	Type-7561	Yokogawa

* Equivalent measurement equipment may be used.

MHQ1005P 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.		
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	Agilent Technologies
Self-resonant frequency	8720C	Agilent Technologies
DC resistance	Type-7561	Yokogawa

* Equivalent measurement equipment may be used.

MHQ1005P 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.		
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

Measurement equipment

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

* Equivalent measurement equipment may be used.

MHQ1005P 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	
0.7	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	Agilent Technologies

* Equivalent measurement equipment may be used.

MHQ1005P 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	
2.3	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	Agilent Technologies

* Equivalent measurement equipment may be used.

MHQ1005P Type

ELECTRICAL CHARACTERISTICS

L, Q FREQUENCY CHARACTERISTICS TABLE

L(nH)typ.					Q typ.					Part No.
500MHz	800MHz	1.8GHz	2.0GHz	2.4GHz	500MHz	800MHz	1.8GHz	2.0GHz	2.4GHz	
3.7	3.7	3.9	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	Agilent Technologies

* Equivalent measurement equipment may be used.

MHQ1005P 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	
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	Agilent Technologies

* Equivalent measurement equipment may be used.

MHQ1005P 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	
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	—	—	—	MHQ1005PR10GT25
111	143	—	—	—	33	33	—	—	—	MHQ1005PR10HTD25
111	143	—	—	—	33	33	—	—	—	MHQ1005PR10JTD25

○ Measurement equipment

Product No.	Manufacturer
4291B+16193A	Agilent Technologies

* Equivalent measurement equipment may be used.

MHQ1005P 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	
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

○ Measurement equipment

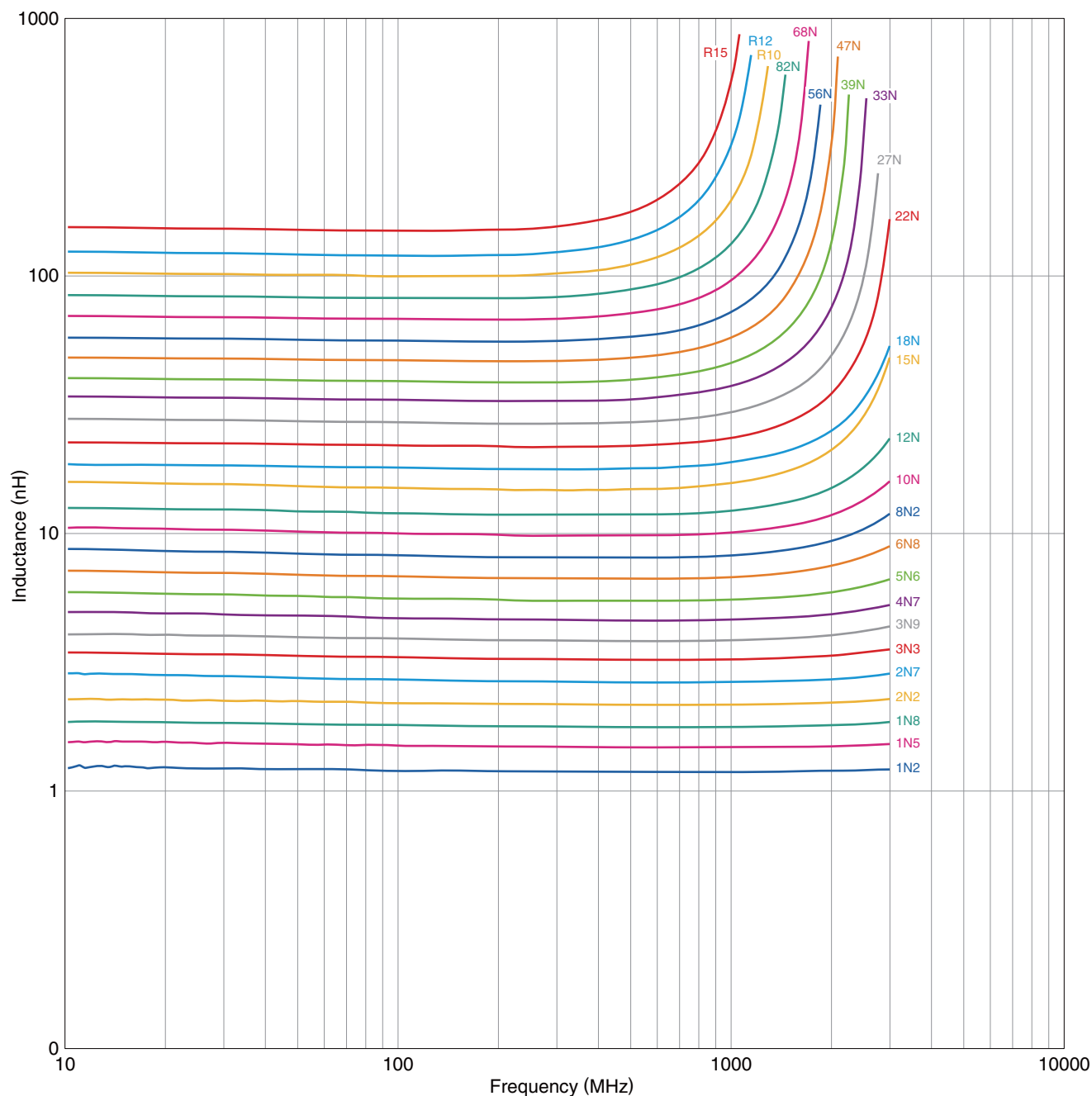
Product No.	Manufacturer
4291B+16193A	Agilent Technologies

* Equivalent measurement equipment may be used.

MHQ1005P Type

ELECTRICAL CHARACTERISTICS

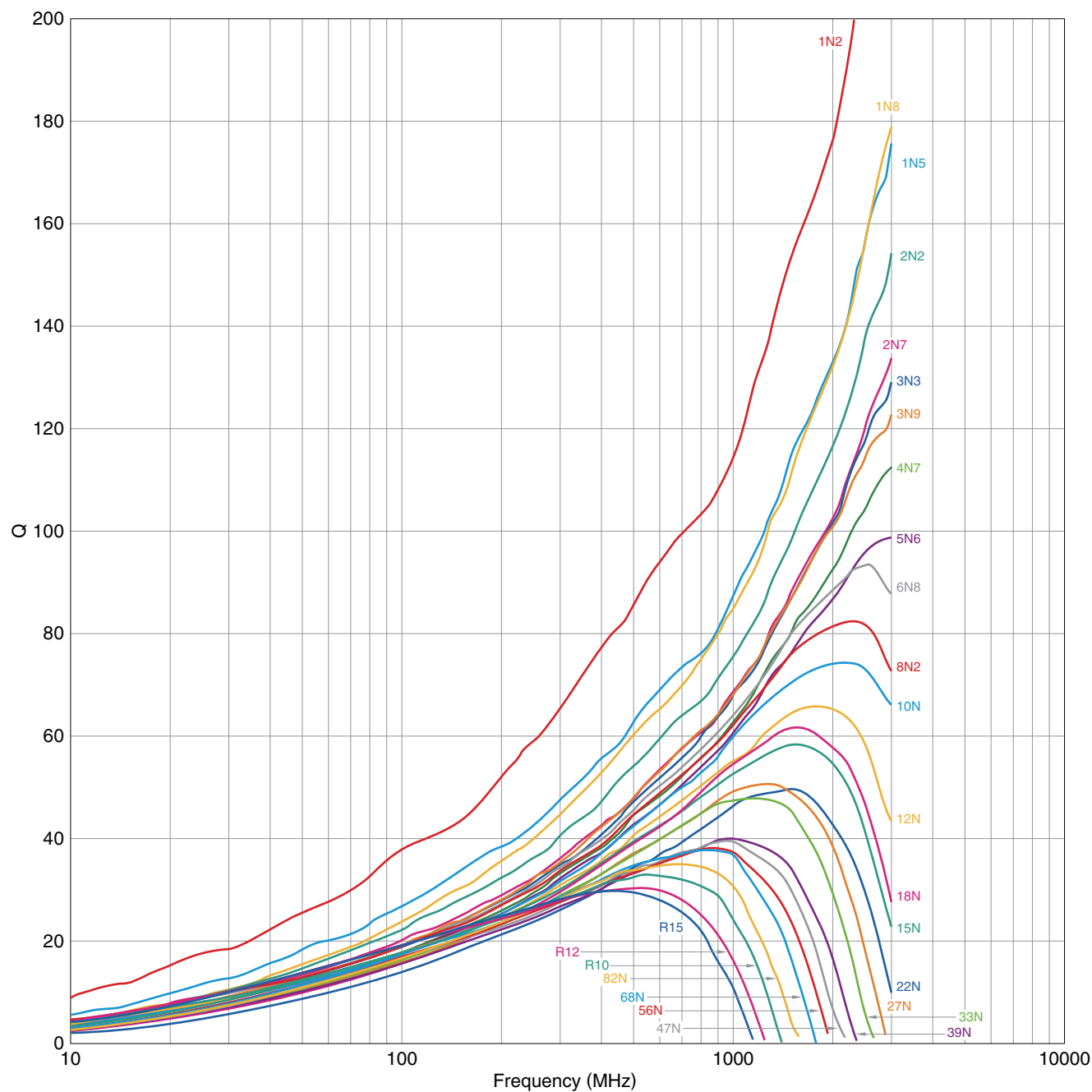
L FREQUENCY CHARACTERISTICS GRAPH (EXAMPLE)



MHQ1005P Type

ELECTRICAL CHARACTERISTICS

Q FREQUENCY CHARACTERISTICS GRAPH (EXAMPLE)



○ Measurement equipment

Product No.	Manufacturer
E4991+16193A	Agilent Technologies

* Equivalent measurement equipment may be used.

REEL DIMENSIONS



Technical drawing of a mechanical part with dimensions and labels:

- Sprocket hole**: Label pointing to the first hole on the left.
- 1.5^{+0.1}_{0.0}**: Dimension for the distance between the first and second holes.
- Cavity**: Label pointing to the space between the second and third holes.
- 1.75^{+0.1}**: Dimension for the distance between the third and fourth holes.
- 3.5^{+0.05}**: Dimension for the distance between the fourth and fifth holes.
- 8.0^{+0.3}**: Total length dimension.
- A**: Label for the distance from the right edge to the center of the last hole.
- 4.0^{+0.1}**: Dimension for the distance between the second and third holes.
- 2.0^{+0.05}**: Dimension for the distance between the third and fourth holes.
- 2.0^{+0.05}**: Dimension for the distance between the fourth and fifth holes.
- K**: Label for the distance from the left edge to the center of the first hole.
- B**: Label for the distance from the left edge to the center of the second hole.

Figure 1 is a schematic diagram of the experimental setup. It shows a horizontal timeline of the experiment. The timeline is divided into three main sections: a 160min. period, a 'Taping' period, and a 200min. period. Below the timeline, there are icons representing different conditions: white squares, black squares, and a white square with a black dot. A 'Drawing direction' arrow points to the right. A break symbol (two wavy lines) is shown after the 200min. period, followed by a 300min. period.

20150105 / inductor_automotive_high-frequency_mhq1005p_en