



# Inductors for high frequency circuits

Multilayer ceramic

**MHQ-P series**

# MHQ1005P<sub>type</sub>

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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 this product.

#### 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 MHQ1005P series

## 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

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   | 000                  |                 |               |        |     |
|-------------|-----------------------|-------------|-----------------|-----------------|-----|----------------------|-----------------|---------------|--------|-----|
| Series name | LxWxH dimensions (mm) |             | Characteristics | Inductance (nH) |     | Inductance tolerance | Packaging style | Internal code |        |     |
|             | 1005                  | 1.0x0.6x0.5 | P               | 0N7             | 0.7 | B                    | ±0.1nH          | T             | Taping | 000 |
|             |                       |             |                 | 1N1             | 1.1 | C                    | ±0.2nH          |               |        |     |
|             |                       |             |                 | 11N             | 11  | S                    | ±0.3nH          |               |        |     |
|             |                       |             |                 |                 |     | G                    | ±2%             |               |        |     |
|             |                       |             |                 |                 |     | H                    | ±3%             |               |        |     |
|             |                       |             |                 |                 |     | J                    | ±5%             |               |        |     |

## OPERATING TEMPERATURE RANGE, PACKAGE QUANTITY, PRODUCT WEIGHT

| Type     | Temperature ranges         |                           | 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. <https://product.tdk.com/info/en/environment/rohs/index.html>
- Halogen-free: indicates that Cl content is less than 900ppm, Br content is less than 900ppm, and that the total Cl and Br content is less than 1500ppm.

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

# MHQ1005P type

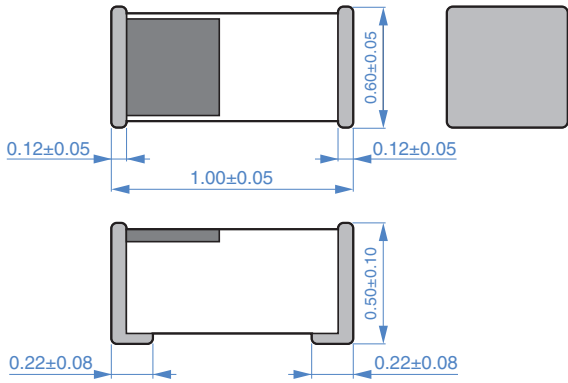
## RECOMMENDED REFLOW PROFILE



| 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

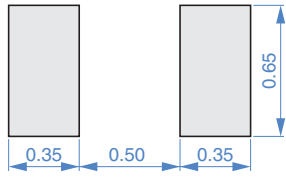
## SHAPE & DIMENSIONS



Dimensions in mm



## RECOMMENDED LAND PATTERN



Dimensions in mm

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

## 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.     | ( $\Omega$ )max. |                  |          |
| 0.7 | $\pm 0.1$ nH          | 100       | —  | 250                   | 15.0 | 18.3                    | 0.03      | 0.01max.      | 1200             | MHQ1005P0N7BT000 |          |
| 0.7 | $\pm 0.2$ nH          | 100       | —  | 250                   | 15.0 | 18.3                    | 0.03      | 0.01max.      | 1200             | MHQ1005P0N7CT000 |          |
| 0.8 | $\pm 0.1$ nH          | 100       | —  | 250                   | 15.0 | 18.3                    | 0.03      | 0.01max.      | 1200             | MHQ1005P0N8BT000 |          |
| 0.8 | $\pm 0.2$ nH          | 100       | —  | 250                   | 15.0 | 18.3                    | 0.03      | 0.01max.      | 1200             | MHQ1005P0N8CT000 |          |
| 0.9 | $\pm 0.1$ nH          | 100       | —  | 250                   | 15.0 | 18.6                    | 0.03      | 0.01max.      | 1200             | MHQ1005P0N9BT000 |          |
| 0.9 | $\pm 0.2$ nH          | 100       | —  | 250                   | 15.0 | 18.6                    | 0.03      | 0.01max.      | 1200             | MHQ1005P0N9CT000 |          |
| 1.0 | $\pm 0.1$ nH          | 100       | —  | 250                   | 15.0 | 20.0                    | 0.03      | 0.01          | 1200             | MHQ1005P1N0BT000 |          |
| 1.0 | $\pm 0.2$ nH          | 100       | —  | 250                   | 15.0 | 20.0                    | 0.03      | 0.01          | 1200             | MHQ1005P1N0CT000 |          |
| 1.0 | $\pm 0.3$ nH          | 100       | —  | 250                   | 15.0 | 20.0                    | 0.03      | 0.01          | 1200             | MHQ1005P1N0ST000 |          |
| 1.1 | $\pm 0.1$ nH          | 100       | —  | 250                   | 14.0 | 20.0                    | 0.03      | 0.02          | 1200             | MHQ1005P1N1BT000 |          |
| 1.1 | $\pm 0.2$ nH          | 100       | —  | 250                   | 14.0 | 20.0                    | 0.03      | 0.02          | 1200             | MHQ1005P1N1CT000 |          |
| 1.1 | $\pm 0.3$ nH          | 100       | —  | 250                   | 14.0 | 20.0                    | 0.03      | 0.02          | 1200             | MHQ1005P1N1ST000 |          |
| 1.2 | $\pm 0.1$ nH          | 100       | —  | 250                   | 13.0 | 20.0                    | 0.03      | 0.01          | 1200             | MHQ1005P1N2BT000 |          |
| 1.2 | $\pm 0.2$ nH          | 100       | —  | 250                   | 13.0 | 20.0                    | 0.03      | 0.01          | 1200             | MHQ1005P1N2CT000 |          |
| 1.2 | $\pm 0.3$ nH          | 100       | —  | 250                   | 13.0 | 20.0                    | 0.03      | 0.01          | 1200             | MHQ1005P1N2ST000 |          |
| 1.3 | $\pm 0.1$ nH          | 100       | —  | 250                   | 12.0 | 20.0                    | 0.03      | 0.01          | 1200             | MHQ1005P1N3BT000 |          |
| 1.3 | $\pm 0.2$ nH          | 100       | —  | 250                   | 12.0 | 20.0                    | 0.03      | 0.01          | 1200             | MHQ1005P1N3CT000 |          |
| 1.3 | $\pm 0.3$ nH          | 100       | —  | 250                   | 12.0 | 20.0                    | 0.03      | 0.01          | 1200             | MHQ1005P1N3ST000 |          |
| 1.4 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 12.0 | 20.0                    | 0.04      | 0.02          | 1000             | MHQ1005P1N4BT000 |          |
| 1.4 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 12.0 | 20.0                    | 0.04      | 0.02          | 1000             | MHQ1005P1N4CT000 |          |
| 1.4 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 12.0 | 20.0                    | 0.04      | 0.02          | 1000             | MHQ1005P1N4ST000 |          |
| 1.5 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 11.0 | 19.7                    | 0.04      | 0.02          | 1000             | MHQ1005P1N5BT000 |          |
| 1.5 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 11.0 | 19.7                    | 0.04      | 0.02          | 1000             | MHQ1005P1N5CT000 |          |
| 1.5 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 11.0 | 19.7                    | 0.04      | 0.02          | 1000             | MHQ1005P1N5ST000 |          |
| 1.6 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 10.0 | 15.2                    | 0.04      | 0.02          | 1000             | MHQ1005P1N6BT000 |          |
| 1.6 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 10.0 | 15.2                    | 0.04      | 0.02          | 1000             | MHQ1005P1N6CT000 |          |
| 1.6 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 10.0 | 15.2                    | 0.04      | 0.02          | 1000             | MHQ1005P1N6ST000 |          |
| 1.7 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 10.0 | 15.4                    | 0.04      | 0.02          | 1000             | MHQ1005P1N7BT000 |          |
| 1.7 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 10.0 | 15.4                    | 0.04      | 0.02          | 1000             | MHQ1005P1N7CT000 |          |
| 1.7 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 10.0 | 15.4                    | 0.04      | 0.02          | 1000             | MHQ1005P1N7ST000 |          |
| 1.8 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 9.0  | 15.1                    | 0.04      | 0.03          | 1000             | MHQ1005P1N8BT000 |          |
| 1.8 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 9.0  | 15.1                    | 0.04      | 0.03          | 1000             | MHQ1005P1N8CT000 |          |
| 1.8 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 9.0  | 15.1                    | 0.04      | 0.03          | 1000             | MHQ1005P1N8ST000 |          |
| 1.9 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 8.0  | 14.8                    | 0.05      | 0.03          | 1000             | MHQ1005P1N9BT000 |          |
| 1.9 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 8.0  | 14.8                    | 0.05      | 0.03          | 1000             | MHQ1005P1N9CT000 |          |
| 1.9 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 8.0  | 14.8                    | 0.05      | 0.03          | 1000             | MHQ1005P1N9ST000 |          |
| 2.0 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 8.0  | 11.5                    | 0.05      | 0.03          | 1000             | MHQ1005P2N0BT000 |          |
| 2.0 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 8.0  | 11.5                    | 0.05      | 0.03          | 1000             | MHQ1005P2N0CT000 |          |
| 2.0 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 8.0  | 11.5                    | 0.05      | 0.03          | 1000             | MHQ1005P2N0ST000 |          |
| 2.1 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 8.0  | 13.1                    | 0.06      | 0.04          | 1000             | MHQ1005P2N1BT000 |          |
| 2.1 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 8.0  | 13.1                    | 0.06      | 0.04          | 1000             | MHQ1005P2N1CT000 |          |
| 2.1 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 8.0  | 13.1                    | 0.06      | 0.04          | 1000             | MHQ1005P2N1ST000 |          |
| 2.2 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 8.0  | 12.1                    | 0.06      | 0.04          | 1000             | MHQ1005P2N2BT000 |          |
| 2.2 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 8.0  | 12.1                    | 0.06      | 0.04          | 1000             | MHQ1005P2N2CT000 |          |
| 2.2 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 8.0  | 12.1                    | 0.06      | 0.04          | 1000             | MHQ1005P2N2ST000 |          |

· Short bar residual inductance =0.11nH

#### ○ 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

## 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.     | ( $\Omega$ )max. |                  |          |
| 2.3 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 7.0  | 10.5                    | 0.07      | 0.05          | 1000             | MHQ1005P2N3BT000 |          |
| 2.3 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 7.0  | 10.5                    | 0.07      | 0.05          | 1000             | MHQ1005P2N3CT000 |          |
| 2.3 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 7.0  | 10.5                    | 0.07      | 0.05          | 1000             | MHQ1005P2N3ST000 |          |
| 2.4 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 6.5  | 9.8                     | 0.06      | 0.04          | 1000             | MHQ1005P2N4BT000 |          |
| 2.4 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 6.5  | 9.8                     | 0.06      | 0.04          | 1000             | MHQ1005P2N4CT000 |          |
| 2.4 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 6.5  | 9.8                     | 0.06      | 0.04          | 1000             | MHQ1005P2N4ST000 |          |
| 2.5 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 6.5  | 10.3                    | 0.07      | 0.05          | 900              | MHQ1005P2N5BT000 |          |
| 2.5 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 6.5  | 10.3                    | 0.07      | 0.05          | 900              | MHQ1005P2N5CT000 |          |
| 2.5 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 6.5  | 10.3                    | 0.07      | 0.05          | 900              | MHQ1005P2N5ST000 |          |
| 2.6 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 6.5  | 10.1                    | 0.07      | 0.05          | 900              | MHQ1005P2N6BT000 |          |
| 2.6 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 6.5  | 10.1                    | 0.07      | 0.05          | 900              | MHQ1005P2N6CT000 |          |
| 2.6 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 6.5  | 10.1                    | 0.07      | 0.05          | 900              | MHQ1005P2N6ST000 |          |
| 2.7 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 6.5  | 9.6                     | 0.07      | 0.04          | 900              | MHQ1005P2N7BT000 |          |
| 2.7 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 6.5  | 9.6                     | 0.07      | 0.04          | 900              | MHQ1005P2N7CT000 |          |
| 2.7 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 6.5  | 9.6                     | 0.07      | 0.04          | 900              | MHQ1005P2N7ST000 |          |
| 2.8 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 6.5  | 10.3                    | 0.08      | 0.05          | 900              | MHQ1005P2N8BT000 |          |
| 2.8 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 6.5  | 10.3                    | 0.08      | 0.05          | 900              | MHQ1005P2N8CT000 |          |
| 2.8 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 6.5  | 10.3                    | 0.08      | 0.05          | 900              | MHQ1005P2N8ST000 |          |
| 2.9 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 6.5  | 9.9                     | 0.08      | 0.05          | 900              | MHQ1005P2N9BT000 |          |
| 2.9 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 6.5  | 9.9                     | 0.08      | 0.05          | 900              | MHQ1005P2N9CT000 |          |
| 2.9 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 6.5  | 9.9                     | 0.08      | 0.05          | 900              | MHQ1005P2N9ST000 |          |
| 3.0 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 6.0  | 9.4                     | 0.08      | 0.06          | 900              | MHQ1005P3N0BT000 |          |
| 3.0 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 6.0  | 9.4                     | 0.08      | 0.06          | 900              | MHQ1005P3N0CT000 |          |
| 3.0 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 6.0  | 9.4                     | 0.08      | 0.06          | 900              | MHQ1005P3N0ST000 |          |
| 3.1 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 6.0  | 10.3                    | 0.09      | 0.06          | 900              | MHQ1005P3N1BT000 |          |
| 3.1 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 6.0  | 10.3                    | 0.09      | 0.06          | 900              | MHQ1005P3N1CT000 |          |
| 3.1 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 6.0  | 10.3                    | 0.09      | 0.06          | 900              | MHQ1005P3N1ST000 |          |
| 3.2 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 6.0  | 10.0                    | 0.09      | 0.07          | 900              | MHQ1005P3N2BT000 |          |
| 3.2 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 6.0  | 10.0                    | 0.09      | 0.07          | 900              | MHQ1005P3N2CT000 |          |
| 3.2 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 6.0  | 10.0                    | 0.09      | 0.07          | 900              | MHQ1005P3N2ST000 |          |
| 3.3 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 6.0  | 9.0                     | 0.08      | 0.06          | 900              | MHQ1005P3N3BT000 |          |
| 3.3 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 6.0  | 9.0                     | 0.08      | 0.06          | 900              | MHQ1005P3N3CT000 |          |
| 3.3 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 6.0  | 9.0                     | 0.08      | 0.06          | 900              | MHQ1005P3N3ST000 |          |
| 3.4 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 6.0  | 9.0                     | 0.09      | 0.06          | 900              | MHQ1005P3N4BT000 |          |
| 3.4 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 6.0  | 9.0                     | 0.09      | 0.06          | 900              | MHQ1005P3N4CT000 |          |
| 3.4 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 6.0  | 9.0                     | 0.09      | 0.06          | 900              | MHQ1005P3N4ST000 |          |
| 3.5 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 5.8  | 8.8                     | 0.09      | 0.07          | 900              | MHQ1005P3N5BT000 |          |
| 3.5 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 5.8  | 8.8                     | 0.09      | 0.07          | 900              | MHQ1005P3N5CT000 |          |
| 3.5 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 5.8  | 8.8                     | 0.09      | 0.07          | 900              | MHQ1005P3N5ST000 |          |
| 3.6 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 5.5  | 8.4                     | 0.09      | 0.07          | 900              | MHQ1005P3N6BT000 |          |
| 3.6 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 5.5  | 8.4                     | 0.09      | 0.07          | 900              | MHQ1005P3N6CT000 |          |
| 3.6 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 5.5  | 8.4                     | 0.09      | 0.07          | 900              | MHQ1005P3N6ST000 |          |
| 3.7 | $\pm 0.1$ nH          | 100       | 23 | 250                   | 5.5  | 8.5                     | 0.10      | 0.08          | 900              | MHQ1005P3N7BT000 |          |
| 3.7 | $\pm 0.2$ nH          | 100       | 23 | 250                   | 5.5  | 8.5                     | 0.10      | 0.08          | 900              | MHQ1005P3N7CT000 |          |
| 3.7 | $\pm 0.3$ nH          | 100       | 23 | 250                   | 5.5  | 8.5                     | 0.10      | 0.08          | 900              | MHQ1005P3N7ST000 |          |

· Short bar residual inductance =0.11nH

#### ○ 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

## 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)            |
| 3.8 | $\pm 0.1$ nH          | 100 | 23                    | 250                     | 5.0       | 7.9           | 0.10 | 0.07          | 900      | MHQ1005P3N8BT000 |
| 3.8 | $\pm 0.2$ nH          | 100 | 23                    | 250                     | 5.0       | 7.9           | 0.10 | 0.07          | 900      | MHQ1005P3N8CT000 |
| 3.8 | $\pm 0.3$ nH          | 100 | 23                    | 250                     | 5.0       | 7.9           | 0.10 | 0.07          | 900      | MHQ1005P3N8ST000 |
| 3.9 | $\pm 0.1$ nH          | 100 | 23                    | 250                     | 5.0       | 7.7           | 0.09 | 0.07          | 900      | MHQ1005P3N9BT000 |
| 3.9 | $\pm 0.2$ nH          | 100 | 23                    | 250                     | 5.0       | 7.7           | 0.09 | 0.07          | 900      | MHQ1005P3N9CT000 |
| 3.9 | $\pm 0.3$ nH          | 100 | 23                    | 250                     | 5.0       | 7.7           | 0.09 | 0.07          | 900      | MHQ1005P3N9ST000 |
| 4.1 | $\pm 0.1$ nH          | 100 | 23                    | 250                     | 5.0       | 7.7           | 0.10 | 0.07          | 800      | MHQ1005P4N1BT000 |
| 4.1 | $\pm 0.2$ nH          | 100 | 23                    | 250                     | 5.0       | 7.7           | 0.10 | 0.07          | 800      | MHQ1005P4N1CT000 |
| 4.1 | $\pm 0.3$ nH          | 100 | 23                    | 250                     | 5.0       | 7.7           | 0.10 | 0.07          | 800      | MHQ1005P4N1ST000 |
| 4.3 | $\pm 0.1$ nH          | 100 | 23                    | 250                     | 5.0       | 7.1           | 0.10 | 0.08          | 800      | MHQ1005P4N3BT000 |
| 4.3 | $\pm 0.2$ nH          | 100 | 23                    | 250                     | 5.0       | 7.1           | 0.10 | 0.08          | 800      | MHQ1005P4N3CT000 |
| 4.3 | $\pm 0.3$ nH          | 100 | 23                    | 250                     | 5.0       | 7.1           | 0.10 | 0.08          | 800      | MHQ1005P4N3ST000 |
| 4.7 | $\pm 0.1$ nH          | 100 | 23                    | 250                     | 5.0       | 7.7           | 0.11 | 0.08          | 800      | MHQ1005P4N7BT000 |
| 4.7 | $\pm 0.2$ nH          | 100 | 23                    | 250                     | 5.0       | 7.7           | 0.11 | 0.08          | 800      | MHQ1005P4N7CT000 |
| 4.7 | $\pm 0.3$ nH          | 100 | 23                    | 250                     | 5.0       | 7.7           | 0.11 | 0.08          | 800      | MHQ1005P4N7ST000 |
| 5.1 | $\pm 0.1$ nH          | 100 | 23                    | 250                     | 4.5       | 7.2           | 0.12 | 0.09          | 800      | MHQ1005P5N1BT000 |
| 5.1 | $\pm 0.2$ nH          | 100 | 23                    | 250                     | 4.5       | 7.2           | 0.12 | 0.09          | 800      | MHQ1005P5N1CT000 |
| 5.1 | $\pm 0.3$ nH          | 100 | 23                    | 250                     | 4.5       | 7.2           | 0.12 | 0.09          | 800      | MHQ1005P5N1ST000 |
| 5.6 | $\pm 0.1$ nH          | 100 | 23                    | 250                     | 4.5       | 6.5           | 0.13 | 0.10          | 800      | MHQ1005P5N6BT000 |
| 5.6 | $\pm 0.2$ nH          | 100 | 23                    | 250                     | 4.5       | 6.5           | 0.13 | 0.10          | 800      | MHQ1005P5N6CT000 |
| 5.6 | $\pm 0.3$ nH          | 100 | 23                    | 250                     | 4.5       | 6.5           | 0.13 | 0.10          | 800      | MHQ1005P5N6ST000 |
| 5.8 | $\pm 0.1$ nH          | 100 | 23                    | 250                     | 4.0       | 5.9           | 0.13 | 0.09          | 700      | MHQ1005P5N8BT000 |
| 5.8 | $\pm 0.2$ nH          | 100 | 23                    | 250                     | 4.0       | 5.9           | 0.13 | 0.09          | 700      | MHQ1005P5N8CT000 |
| 5.8 | $\pm 0.3$ nH          | 100 | 23                    | 250                     | 4.0       | 5.9           | 0.13 | 0.09          | 700      | MHQ1005P5N8ST000 |
| 6.2 | $\pm 0.1$ nH          | 100 | 23                    | 250                     | 4.0       | 5.9           | 0.13 | 0.09          | 700      | MHQ1005P6N2BT000 |
| 6.2 | $\pm 0.2$ nH          | 100 | 23                    | 250                     | 4.0       | 5.9           | 0.13 | 0.09          | 700      | MHQ1005P6N2CT000 |
| 6.2 | $\pm 0.3$ nH          | 100 | 23                    | 250                     | 4.0       | 5.9           | 0.13 | 0.09          | 700      | MHQ1005P6N2ST000 |
| 6.8 | $\pm 2\%$             | 100 | 23                    | 250                     | 4.0       | 5.8           | 0.14 | 0.10          | 700      | MHQ1005P6N8GT000 |
| 6.8 | $\pm 3\%$             | 100 | 23                    | 250                     | 4.0       | 5.8           | 0.14 | 0.10          | 700      | MHQ1005P6N8HT000 |
| 6.8 | $\pm 5\%$             | 100 | 23                    | 250                     | 4.0       | 5.8           | 0.14 | 0.10          | 700      | MHQ1005P6N8JT000 |
| 7.3 | $\pm 2\%$             | 100 | 23                    | 250                     | 4.0       | 5.7           | 0.17 | 0.13          | 600      | MHQ1005P7N3GT000 |
| 7.3 | $\pm 3\%$             | 100 | 23                    | 250                     | 4.0       | 5.7           | 0.17 | 0.13          | 600      | MHQ1005P7N3HT000 |
| 7.3 | $\pm 5\%$             | 100 | 23                    | 250                     | 4.0       | 5.7           | 0.17 | 0.13          | 600      | MHQ1005P7N3JT000 |
| 7.5 | $\pm 2\%$             | 100 | 23                    | 250                     | 4.0       | 5.6           | 0.16 | 0.12          | 600      | MHQ1005P7N5GT000 |
| 7.5 | $\pm 3\%$             | 100 | 23                    | 250                     | 4.0       | 5.6           | 0.16 | 0.12          | 600      | MHQ1005P7N5HT000 |
| 7.5 | $\pm 5\%$             | 100 | 23                    | 250                     | 4.0       | 5.6           | 0.16 | 0.12          | 600      | MHQ1005P7N5JT000 |
| 8.2 | $\pm 2\%$             | 100 | 23                    | 250                     | 3.6       | 4.9           | 0.16 | 0.12          | 550      | MHQ1005P8N2GT000 |
| 8.2 | $\pm 3\%$             | 100 | 23                    | 250                     | 3.6       | 4.9           | 0.16 | 0.12          | 550      | MHQ1005P8N2HT000 |
| 8.2 | $\pm 5\%$             | 100 | 23                    | 250                     | 3.6       | 4.9           | 0.16 | 0.12          | 550      | MHQ1005P8N2JT000 |
| 8.7 | $\pm 2\%$             | 100 | 23                    | 250                     | 3.5       | 4.7           | 0.17 | 0.13          | 550      | MHQ1005P8N7GT000 |
| 8.7 | $\pm 3\%$             | 100 | 23                    | 250                     | 3.5       | 4.7           | 0.17 | 0.13          | 550      | MHQ1005P8N7HT000 |
| 8.7 | $\pm 5\%$             | 100 | 23                    | 250                     | 3.5       | 4.7           | 0.17 | 0.13          | 550      | MHQ1005P8N7JT000 |
| 9.1 | $\pm 2\%$             | 100 | 23                    | 250                     | 3.4       | 4.5           | 0.17 | 0.13          | 550      | MHQ1005P9N1GT000 |
| 9.1 | $\pm 3\%$             | 100 | 23                    | 250                     | 3.4       | 4.5           | 0.17 | 0.13          | 550      | MHQ1005P9N1HT000 |
| 9.1 | $\pm 5\%$             | 100 | 23                    | 250                     | 3.4       | 4.5           | 0.17 | 0.13          | 550      | MHQ1005P9N1JT000 |

· Short bar residual inductance =0.11nH

#### ○ 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

## ELECTRICAL CHARACTERISTICS

### CHARACTERISTICS SPECIFICATION TABLE

| L<br>(nH) | Tolerance | L measuring<br>frequency<br>(MHz) | Q<br>min. | Q measuring<br>frequency<br>(MHz) | Self-resonant<br>frequency |           | DC resistance    |                  | Rated current<br>(mA)max. | Part No.         |
|-----------|-----------|-----------------------------------|-----------|-----------------------------------|----------------------------|-----------|------------------|------------------|---------------------------|------------------|
|           |           |                                   |           |                                   | (GHz)min.                  | (GHz)typ. | ( $\Omega$ )max. | ( $\Omega$ )typ. |                           |                  |
| 9.5       | ±2%       | 100                               | 23        | 250                               | 3.3                        | 4.7       | 0.21             | 0.16             | 500                       | MHQ1005P9N5GT000 |
| 9.5       | ±3%       | 100                               | 23        | 250                               | 3.3                        | 4.7       | 0.21             | 0.16             | 500                       | MHQ1005P9N5HT000 |
| 9.5       | ±5%       | 100                               | 23        | 250                               | 3.3                        | 4.7       | 0.21             | 0.16             | 500                       | MHQ1005P9N5JT000 |
| 10        | ±2%       | 100                               | 23        | 250                               | 3.3                        | 4.6       | 0.19             | 0.15             | 500                       | MHQ1005P10NGT000 |
| 10        | ±3%       | 100                               | 23        | 250                               | 3.3                        | 4.6       | 0.19             | 0.15             | 500                       | MHQ1005P10NHT000 |
| 10        | ±5%       | 100                               | 23        | 250                               | 3.3                        | 4.6       | 0.19             | 0.15             | 500                       | MHQ1005P10NJT000 |
| 11        | ±2%       | 100                               | 23        | 250                               | 3.0                        | 4.2       | 0.24             | 0.20             | 450                       | MHQ1005P11NGT000 |
| 11        | ±3%       | 100                               | 23        | 250                               | 3.0                        | 4.2       | 0.24             | 0.20             | 450                       | MHQ1005P11NHT000 |
| 11        | ±5%       | 100                               | 23        | 250                               | 3.0                        | 4.2       | 0.24             | 0.20             | 450                       | MHQ1005P11NJT000 |
| 12        | ±2%       | 100                               | 23        | 250                               | 2.8                        | 3.8       | 0.24             | 0.19             | 450                       | MHQ1005P12NGT000 |
| 12        | ±3%       | 100                               | 23        | 250                               | 2.8                        | 3.8       | 0.24             | 0.19             | 450                       | MHQ1005P12NHT000 |
| 12        | ±5%       | 100                               | 23        | 250                               | 2.8                        | 3.8       | 0.24             | 0.19             | 450                       | MHQ1005P12NJT000 |
| 13        | ±2%       | 100                               | 23        | 250                               | 2.5                        | 3.5       | 0.26             | 0.20             | 420                       | MHQ1005P13NGT000 |
| 13        | ±3%       | 100                               | 23        | 250                               | 2.5                        | 3.5       | 0.26             | 0.20             | 420                       | MHQ1005P13NHT000 |
| 13        | ±5%       | 100                               | 23        | 250                               | 2.5                        | 3.5       | 0.26             | 0.20             | 420                       | MHQ1005P13NJT000 |
| 15        | ±2%       | 100                               | 23        | 250                               | 2.3                        | 3.2       | 0.28             | 0.22             | 400                       | MHQ1005P15NGT000 |
| 15        | ±3%       | 100                               | 23        | 250                               | 2.3                        | 3.2       | 0.28             | 0.22             | 400                       | MHQ1005P15NHT000 |
| 15        | ±5%       | 100                               | 23        | 250                               | 2.3                        | 3.2       | 0.28             | 0.22             | 400                       | MHQ1005P15NJT000 |
| 16        | ±2%       | 100                               | 20        | 250                               | 2.3                        | 3.5       | 0.80             | 0.57             | 260                       | MHQ1005P16NGT000 |
| 16        | ±3%       | 100                               | 20        | 250                               | 2.3                        | 3.5       | 0.80             | 0.57             | 260                       | MHQ1005P16NHT000 |
| 16        | ±5%       | 100                               | 20        | 250                               | 2.3                        | 3.5       | 0.80             | 0.57             | 260                       | MHQ1005P16NJT000 |
| 18        | ±2%       | 100                               | 22        | 250                               | 2.3                        | 3.4       | 0.80             | 0.48             | 260                       | MHQ1005P18NGT000 |
| 18        | ±3%       | 100                               | 22        | 250                               | 2.3                        | 3.4       | 0.80             | 0.48             | 260                       | MHQ1005P18NHT000 |
| 18        | ±5%       | 100                               | 22        | 250                               | 2.3                        | 3.4       | 0.80             | 0.48             | 260                       | MHQ1005P18NJT000 |
| 19        | ±2%       | 100                               | 20        | 250                               | 2.3                        | 3.2       | 0.80             | 0.46             | 260                       | MHQ1005P19NGT000 |
| 19        | ±3%       | 100                               | 20        | 250                               | 2.3                        | 3.2       | 0.80             | 0.46             | 260                       | MHQ1005P19NHT000 |
| 19        | ±5%       | 100                               | 20        | 250                               | 2.3                        | 3.2       | 0.80             | 0.46             | 260                       | MHQ1005P19NJT000 |
| 20        | ±2%       | 100                               | 20        | 250                               | 2.1                        | 3.1       | 1.10             | 0.46             | 260                       | MHQ1005P20NGT000 |
| 20        | ±3%       | 100                               | 20        | 250                               | 2.1                        | 3.1       | 1.10             | 0.46             | 260                       | MHQ1005P20NHT000 |
| 20        | ±5%       | 100                               | 20        | 250                               | 2.1                        | 3.1       | 1.10             | 0.46             | 260                       | MHQ1005P20NJT000 |
| 22        | ±2%       | 100                               | 20        | 250                               | 2.1                        | 2.9       | 1.10             | 0.66             | 230                       | MHQ1005P22NGT000 |
| 22        | ±3%       | 100                               | 20        | 250                               | 2.1                        | 2.9       | 1.10             | 0.66             | 230                       | MHQ1005P22NHT000 |
| 22        | ±5%       | 100                               | 20        | 250                               | 2.1                        | 2.9       | 1.10             | 0.66             | 230                       | MHQ1005P22NJT000 |
| 23        | ±2%       | 100                               | 22        | 250                               | 2.0                        | 2.9       | 1.10             | 0.62             | 230                       | MHQ1005P23NGT000 |
| 23        | ±3%       | 100                               | 22        | 250                               | 2.0                        | 2.9       | 1.10             | 0.62             | 230                       | MHQ1005P23NHT000 |
| 23        | ±5%       | 100                               | 22        | 250                               | 2.0                        | 2.9       | 1.10             | 0.62             | 230                       | MHQ1005P23NJT000 |
| 24        | ±2%       | 100                               | 20        | 250                               | 2.0                        | 2.8       | 1.20             | 0.55             | 230                       | MHQ1005P24NGT000 |
| 24        | ±3%       | 100                               | 20        | 250                               | 2.0                        | 2.8       | 1.20             | 0.55             | 230                       | MHQ1005P24NHT000 |
| 24        | ±5%       | 100                               | 20        | 250                               | 2.0                        | 2.8       | 1.20             | 0.55             | 230                       | MHQ1005P24NJT000 |
| 27        | ±2%       | 100                               | 20        | 250                               | 1.7                        | 2.6       | 1.30             | 0.66             | 230                       | MHQ1005P27NGT000 |
| 27        | ±3%       | 100                               | 20        | 250                               | 1.7                        | 2.6       | 1.30             | 0.66             | 230                       | MHQ1005P27NHT000 |
| 27        | ±5%       | 100                               | 20        | 250                               | 1.7                        | 2.6       | 1.30             | 0.66             | 230                       | MHQ1005P27NJT000 |
| 30        | ±2%       | 100                               | 20        | 250                               | 1.7                        | 2.4       | 1.30             | 0.80             | 220                       | MHQ1005P30NGT000 |
| 30        | ±3%       | 100                               | 20        | 250                               | 1.7                        | 2.4       | 1.30             | 0.80             | 220                       | MHQ1005P30NHT000 |
| 30        | ±5%       | 100                               | 20        | 250                               | 1.7                        | 2.4       | 1.30             | 0.80             | 220                       | MHQ1005P30NJT000 |

· Short bar residual inductance =0.11nH

#### ○ 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

## ELECTRICAL CHARACTERISTICS

### CHARACTERISTICS SPECIFICATION TABLE

| L<br>(nH) | Tolerance | L measuring<br>frequency<br>(MHz) | Q<br>min. | Q measuring<br>frequency<br>(MHz) | Self-resonant<br>frequency |           | DC resistance    |                  | Rated current<br>(mA)max. | Part No.         |
|-----------|-----------|-----------------------------------|-----------|-----------------------------------|----------------------------|-----------|------------------|------------------|---------------------------|------------------|
|           |           |                                   |           |                                   | (GHz)min.                  | (GHz)typ. | ( $\Omega$ )max. | ( $\Omega$ )typ. |                           |                  |
| 33        | ±2%       | 100                               | 20        | 250                               | 1.6                        | 2.3       | 1.50             | 0.74             | 220                       | MHQ1005P33NGT000 |
| 33        | ±3%       | 100                               | 20        | 250                               | 1.6                        | 2.3       | 1.50             | 0.74             | 220                       | MHQ1005P33NHT000 |
| 33        | ±5%       | 100                               | 20        | 250                               | 1.6                        | 2.3       | 1.50             | 0.74             | 220                       | MHQ1005P33NJT000 |
| 36        | ±2%       | 100                               | 20        | 250                               | 1.6                        | 2.2       | 1.50             | 0.92             | 190                       | MHQ1005P36NGT000 |
| 36        | ±3%       | 100                               | 20        | 250                               | 1.6                        | 2.2       | 1.50             | 0.92             | 190                       | MHQ1005P36NHT000 |
| 36        | ±5%       | 100                               | 20        | 250                               | 1.6                        | 2.2       | 1.50             | 0.92             | 190                       | MHQ1005P36NJT000 |
| 39        | ±2%       | 100                               | 20        | 250                               | 1.4                        | 2.1       | 1.50             | 0.95             | 190                       | MHQ1005P39NGT000 |
| 39        | ±3%       | 100                               | 20        | 250                               | 1.4                        | 2.1       | 1.50             | 0.95             | 190                       | MHQ1005P39NHT000 |
| 39        | ±5%       | 100                               | 20        | 250                               | 1.4                        | 2.1       | 1.50             | 0.95             | 190                       | MHQ1005P39NJT000 |
| 40        | ±2%       | 100                               | 20        | 250                               | 1.4                        | 2.1       | 1.50             | 1.12             | 190                       | MHQ1005P40NGT000 |
| 40        | ±3%       | 100                               | 20        | 250                               | 1.4                        | 2.1       | 1.50             | 1.12             | 190                       | MHQ1005P40NHT000 |
| 40        | ±5%       | 100                               | 20        | 250                               | 1.4                        | 2.1       | 1.50             | 1.12             | 190                       | MHQ1005P40NJT000 |
| 43        | ±2%       | 100                               | 22        | 250                               | 1.4                        | 2.0       | 1.60             | 1.06             | 190                       | MHQ1005P43NGT000 |
| 43        | ±3%       | 100                               | 22        | 250                               | 1.4                        | 2.0       | 1.60             | 1.06             | 190                       | MHQ1005P43NHT000 |
| 43        | ±5%       | 100                               | 22        | 250                               | 1.4                        | 2.0       | 1.60             | 1.06             | 190                       | MHQ1005P43NJT000 |
| 47        | ±2%       | 100                               | 22        | 250                               | 1.3                        | 1.9       | 1.60             | 1.09             | 190                       | MHQ1005P47NGT000 |
| 47        | ±3%       | 100                               | 22        | 250                               | 1.3                        | 1.9       | 1.60             | 1.09             | 190                       | MHQ1005P47NHT000 |
| 47        | ±5%       | 100                               | 22        | 250                               | 1.3                        | 1.9       | 1.60             | 1.09             | 190                       | MHQ1005P47NJT000 |
| 51        | ±2%       | 100                               | 22        | 250                               | 1.3                        | 1.8       | 1.80             | 1.17             | 190                       | MHQ1005P51NGT000 |
| 51        | ±3%       | 100                               | 22        | 250                               | 1.3                        | 1.8       | 1.80             | 1.17             | 190                       | MHQ1005P51NHT000 |
| 51        | ±5%       | 100                               | 22        | 250                               | 1.3                        | 1.8       | 1.80             | 1.17             | 190                       | MHQ1005P51NJT000 |
| 56        | ±2%       | 100                               | 22        | 250                               | 1.2                        | 1.8       | 1.80             | 1.22             | 180                       | MHQ1005P56NGT000 |
| 56        | ±3%       | 100                               | 22        | 250                               | 1.2                        | 1.8       | 1.80             | 1.22             | 180                       | MHQ1005P56NHT000 |
| 56        | ±5%       | 100                               | 22        | 250                               | 1.2                        | 1.8       | 1.80             | 1.22             | 180                       | MHQ1005P56NJT000 |
| 62        | ±2%       | 100                               | 22        | 250                               | 1.1                        | 1.6       | 1.90             | 1.36             | 180                       | MHQ1005P62NGT000 |
| 62        | ±3%       | 100                               | 22        | 250                               | 1.1                        | 1.6       | 1.90             | 1.36             | 180                       | MHQ1005P62NHT000 |
| 62        | ±5%       | 100                               | 22        | 250                               | 1.1                        | 1.6       | 1.90             | 1.36             | 180                       | MHQ1005P62NJT000 |
| 68        | ±2%       | 100                               | 22        | 250                               | 1.1                        | 1.6       | 2.00             | 1.43             | 160                       | MHQ1005P68NGT000 |
| 68        | ±3%       | 100                               | 22        | 250                               | 1.1                        | 1.6       | 2.00             | 1.43             | 160                       | MHQ1005P68NHT000 |
| 68        | ±5%       | 100                               | 22        | 250                               | 1.1                        | 1.6       | 2.00             | 1.43             | 160                       | MHQ1005P68NJT000 |
| 72        | ±2%       | 100                               | 22        | 250                               | 1.1                        | 1.5       | 2.20             | 1.62             | 160                       | MHQ1005P72NGT000 |
| 72        | ±3%       | 100                               | 22        | 250                               | 1.1                        | 1.5       | 2.20             | 1.62             | 160                       | MHQ1005P72NHT000 |
| 72        | ±5%       | 100                               | 22        | 250                               | 1.1                        | 1.5       | 2.20             | 1.62             | 160                       | MHQ1005P72NJT000 |
| 75        | ±2%       | 100                               | 22        | 250                               | 1.1                        | 1.5       | 2.20             | 1.53             | 160                       | MHQ1005P75NGT000 |
| 75        | ±3%       | 100                               | 22        | 250                               | 1.1                        | 1.5       | 2.20             | 1.53             | 160                       | MHQ1005P75NHT000 |
| 75        | ±5%       | 100                               | 22        | 250                               | 1.1                        | 1.5       | 2.20             | 1.53             | 160                       | MHQ1005P75NJT000 |
| 82        | ±2%       | 100                               | 22        | 250                               | 0.9                        | 1.5       | 2.30             | 1.61             | 160                       | MHQ1005P82NGT000 |
| 82        | ±3%       | 100                               | 22        | 250                               | 0.9                        | 1.5       | 2.30             | 1.61             | 160                       | MHQ1005P82NHT000 |
| 82        | ±5%       | 100                               | 22        | 250                               | 0.9                        | 1.5       | 2.30             | 1.61             | 160                       | MHQ1005P82NJT000 |
| 91        | ±2%       | 100                               | 23        | 250                               | 0.9                        | 1.4       | 2.30             | 1.78             | 160                       | MHQ1005P91NGT000 |
| 91        | ±3%       | 100                               | 23        | 250                               | 0.9                        | 1.4       | 2.30             | 1.78             | 160                       | MHQ1005P91NHT000 |
| 91        | ±5%       | 100                               | 23        | 250                               | 0.9                        | 1.4       | 2.30             | 1.78             | 160                       | MHQ1005P91NJT000 |
| 100       | ±2%       | 100                               | 23        | 250                               | 0.9                        | 1.2       | 2.50             | 1.80             | 150                       | MHQ1005PR10GT000 |
| 100       | ±3%       | 100                               | 23        | 250                               | 0.9                        | 1.2       | 2.50             | 1.80             | 150                       | MHQ1005PR10HT000 |
| 100       | ±5%       | 100                               | 23        | 250                               | 0.9                        | 1.2       | 2.50             | 1.80             | 150                       | MHQ1005PR10JT000 |

· Short bar residual inductance =0.11nH

#### ○ 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

## ELECTRICAL CHARACTERISTICS

### CHARACTERISTICS SPECIFICATION TABLE

| L   | Tolerance | L measuring frequency (MHz) | Q min. | Q measuring frequency (MHz) | Self-resonant frequency |           | DC resistance    |                  | Rated current (mA)max. | Part No.         |
|-----|-----------|-----------------------------|--------|-----------------------------|-------------------------|-----------|------------------|------------------|------------------------|------------------|
|     |           |                             |        |                             | (GHz)min.               | (GHz)typ. | ( $\Omega$ )max. | ( $\Omega$ )typ. |                        |                  |
| 110 | $\pm 2\%$ | 100                         | 22     | 250                         | 0.8                     | 1.2       | 2.70             | 1.98             | 150                    | MHQ1005PR11GT000 |
| 110 | $\pm 3\%$ | 100                         | 22     | 250                         | 0.8                     | 1.2       | 2.70             | 1.98             | 150                    | MHQ1005PR11HT000 |
| 110 | $\pm 5\%$ | 100                         | 22     | 250                         | 0.8                     | 1.2       | 2.70             | 1.98             | 150                    | MHQ1005PR11JT000 |
| 120 | $\pm 2\%$ | 100                         | 22     | 250                         | 0.8                     | 1.2       | 2.70             | 1.81             | 140                    | MHQ1005PR12GT000 |
| 120 | $\pm 3\%$ | 100                         | 22     | 250                         | 0.8                     | 1.2       | 2.70             | 1.81             | 140                    | MHQ1005PR12HT000 |
| 120 | $\pm 5\%$ | 100                         | 22     | 250                         | 0.8                     | 1.2       | 2.70             | 1.81             | 140                    | MHQ1005PR12JT000 |
| 130 | $\pm 2\%$ | 100                         | 22     | 250                         | 0.8                     | 1.1       | 2.90             | 2.18             | 110                    | MHQ1005PR13GT000 |
| 130 | $\pm 3\%$ | 100                         | 22     | 250                         | 0.8                     | 1.1       | 2.90             | 2.18             | 110                    | MHQ1005PR13HT000 |
| 130 | $\pm 5\%$ | 100                         | 22     | 250                         | 0.8                     | 1.1       | 2.90             | 2.18             | 110                    | MHQ1005PR13JT000 |
| 150 | $\pm 2\%$ | 100                         | 22     | 250                         | 0.8                     | 1.0       | 3.00             | 2.03             | 110                    | MHQ1005PR15GT000 |
| 150 | $\pm 3\%$ | 100                         | 22     | 250                         | 0.8                     | 1.0       | 3.00             | 2.03             | 110                    | MHQ1005PR15HT000 |
| 150 | $\pm 5\%$ | 100                         | 22     | 250                         | 0.8                     | 1.0       | 3.00             | 2.03             | 110                    | MHQ1005PR15JT000 |

• Short bar residual inductance =0.11nH

#### 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

## 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. | MHQ1005P0N7BT000 |
| 0.7       | 0.7    | 0.7    | 0.7    | 0.7    | 71min. | 90min. | 139min. | 148min. | 177min. | MHQ1005P0N7CT000 |
| 0.8       | 0.8    | 0.8    | 0.8    | 0.8    | 71min. | 90min. | 139min. | 148min. | 177min. | MHQ1005P0N8BT000 |
| 0.8       | 0.8    | 0.8    | 0.8    | 0.8    | 71min. | 90min. | 139min. | 148min. | 177min. | MHQ1005P0N8CT000 |
| 0.9       | 0.9    | 0.9    | 0.9    | 0.9    | 71min. | 90min. | 139min. | 148min. | 177min. | MHQ1005P0N9BT000 |
| 0.9       | 0.9    | 0.9    | 0.9    | 0.9    | 71min. | 90min. | 139min. | 148min. | 177min. | MHQ1005P0N9CT000 |
| 1.0       | 1.0    | 1.0    | 1.0    | 1.0    | 71min. | 90min. | 139min. | 148min. | 177min. | MHQ1005P1N0BT000 |
| 1.0       | 1.0    | 1.0    | 1.0    | 1.0    | 71min. | 90min. | 139min. | 148min. | 177min. | MHQ1005P1N0CT000 |
| 1.0       | 1.0    | 1.0    | 1.0    | 1.0    | 71min. | 90min. | 139min. | 148min. | 177min. | MHQ1005P1N0ST000 |
| 1.1       | 1.1    | 1.1    | 1.1    | 1.1    | 71min. | 90min. | 139min. | 148min. | 177min. | MHQ1005P1N1BT000 |
| 1.1       | 1.1    | 1.1    | 1.1    | 1.1    | 71min. | 90min. | 139min. | 148min. | 177min. | MHQ1005P1N1CT000 |
| 1.1       | 1.1    | 1.1    | 1.1    | 1.1    | 71min. | 90min. | 139min. | 148min. | 177min. | MHQ1005P1N1ST000 |
| 1.2       | 1.2    | 1.2    | 1.2    | 1.2    | 71min. | 90min. | 139min. | 148min. | 177min. | MHQ1005P1N2BT000 |
| 1.2       | 1.2    | 1.2    | 1.2    | 1.2    | 71min. | 90min. | 139min. | 148min. | 177min. | MHQ1005P1N2CT000 |
| 1.2       | 1.2    | 1.2    | 1.2    | 1.2    | 71min. | 90min. | 139min. | 148min. | 177min. | MHQ1005P1N2ST000 |
| 1.3       | 1.3    | 1.3    | 1.3    | 1.3    | 71     | 90     | 139     | 148     | 178     | MHQ1005P1N3BT000 |
| 1.3       | 1.3    | 1.3    | 1.3    | 1.3    | 71     | 90     | 139     | 148     | 178     | MHQ1005P1N3CT000 |
| 1.3       | 1.3    | 1.3    | 1.3    | 1.3    | 71     | 90     | 139     | 148     | 178     | MHQ1005P1N3ST000 |
| 1.4       | 1.4    | 1.4    | 1.4    | 1.4    | 88     | 103    | 173     | 178     | 203     | MHQ1005P1N4BT000 |
| 1.4       | 1.4    | 1.4    | 1.4    | 1.4    | 88     | 103    | 173     | 178     | 203     | MHQ1005P1N4CT000 |
| 1.4       | 1.4    | 1.4    | 1.4    | 1.4    | 88     | 103    | 173     | 178     | 203     | MHQ1005P1N4ST000 |
| 1.5       | 1.5    | 1.5    | 1.5    | 1.5    | 66     | 76     | 124     | 133     | 151     | MHQ1005P1N5BT000 |
| 1.5       | 1.5    | 1.5    | 1.5    | 1.5    | 66     | 76     | 124     | 133     | 151     | MHQ1005P1N5CT000 |
| 1.5       | 1.5    | 1.5    | 1.5    | 1.5    | 66     | 76     | 124     | 133     | 151     | MHQ1005P1N5ST000 |
| 1.6       | 1.6    | 1.6    | 1.6    | 1.6    | 70     | 88     | 147     | 151     | 171     | MHQ1005P1N6BT000 |
| 1.6       | 1.6    | 1.6    | 1.6    | 1.6    | 70     | 88     | 147     | 151     | 171     | MHQ1005P1N6CT000 |
| 1.6       | 1.6    | 1.6    | 1.6    | 1.6    | 70     | 88     | 147     | 151     | 171     | MHQ1005P1N6ST000 |
| 1.7       | 1.7    | 1.7    | 1.7    | 1.7    | 63     | 80     | 140     | 151     | 179     | MHQ1005P1N7BT000 |
| 1.7       | 1.7    | 1.7    | 1.7    | 1.7    | 63     | 80     | 140     | 151     | 179     | MHQ1005P1N7CT000 |
| 1.7       | 1.7    | 1.7    | 1.7    | 1.7    | 63     | 80     | 140     | 151     | 179     | MHQ1005P1N7ST000 |
| 1.8       | 1.8    | 1.8    | 1.8    | 1.8    | 60     | 75     | 125     | 130     | 150     | MHQ1005P1N8BT000 |
| 1.8       | 1.8    | 1.8    | 1.8    | 1.8    | 60     | 75     | 125     | 130     | 150     | MHQ1005P1N8CT000 |
| 1.8       | 1.8    | 1.8    | 1.8    | 1.8    | 60     | 75     | 125     | 130     | 150     | MHQ1005P1N8ST000 |
| 1.9       | 1.9    | 1.9    | 1.9    | 1.9    | 53     | 68     | 119     | 126     | 150     | MHQ1005P1N9BT000 |
| 1.9       | 1.9    | 1.9    | 1.9    | 1.9    | 53     | 68     | 119     | 126     | 150     | MHQ1005P1N9CT000 |
| 1.9       | 1.9    | 1.9    | 1.9    | 1.9    | 53     | 68     | 119     | 126     | 150     | MHQ1005P1N9ST000 |
| 2.0       | 2.0    | 2.0    | 2.0    | 2.0    | 60     | 74     | 122     | 129     | 146     | MHQ1005P2N0BT000 |
| 2.0       | 2.0    | 2.0    | 2.0    | 2.0    | 60     | 74     | 122     | 129     | 146     | MHQ1005P2N0CT000 |
| 2.0       | 2.0    | 2.0    | 2.0    | 2.0    | 60     | 74     | 122     | 129     | 146     | MHQ1005P2N0ST000 |
| 2.1       | 2.1    | 2.1    | 2.1    | 2.1    | 54     | 70     | 121     | 129     | 152     | MHQ1005P2N1BT000 |
| 2.1       | 2.1    | 2.1    | 2.1    | 2.1    | 54     | 70     | 121     | 129     | 152     | MHQ1005P2N1CT000 |
| 2.1       | 2.1    | 2.1    | 2.1    | 2.1    | 54     | 70     | 121     | 129     | 152     | MHQ1005P2N1ST000 |
| 2.2       | 2.2    | 2.2    | 2.2    | 2.2    | 54     | 68     | 108     | 116     | 131     | MHQ1005P2N2BT000 |
| 2.2       | 2.2    | 2.2    | 2.2    | 2.2    | 54     | 68     | 108     | 116     | 131     | MHQ1005P2N2CT000 |
| 2.2       | 2.2    | 2.2    | 2.2    | 2.2    | 54     | 68     | 108     | 116     | 131     | MHQ1005P2N2ST000 |

#### ○ Measurement equipment

| Product No.  | Manufacturer          |
|--------------|-----------------------|
| 4291B+16193A | Keysight 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    | MHQ1005P2N3BT000 |
| 2.3       | 2.3    | 2.3    | 2.3    | 2.3    | 50     | 64     | 101    | 106    | 119    | MHQ1005P2N3CT000 |
| 2.3       | 2.3    | 2.3    | 2.3    | 2.3    | 50     | 64     | 101    | 106    | 119    | MHQ1005P2N3ST000 |
| 2.4       | 2.3    | 2.4    | 2.4    | 2.4    | 50     | 64     | 105    | 110    | 125    | MHQ1005P2N4BT000 |
| 2.4       | 2.3    | 2.4    | 2.4    | 2.4    | 50     | 64     | 105    | 110    | 125    | MHQ1005P2N4CT000 |
| 2.4       | 2.3    | 2.4    | 2.4    | 2.4    | 50     | 64     | 105    | 110    | 125    | MHQ1005P2N4ST000 |
| 2.5       | 2.5    | 2.5    | 2.5    | 2.6    | 50     | 65     | 110    | 114    | 135    | MHQ1005P2N5BT000 |
| 2.5       | 2.5    | 2.5    | 2.5    | 2.6    | 50     | 65     | 110    | 114    | 135    | MHQ1005P2N5CT000 |
| 2.5       | 2.5    | 2.5    | 2.5    | 2.6    | 50     | 65     | 110    | 114    | 135    | MHQ1005P2N5ST000 |
| 2.5       | 2.5    | 2.6    | 2.6    | 2.7    | 48     | 65     | 103    | 107    | 122    | MHQ1005P2N6BT000 |
| 2.5       | 2.5    | 2.6    | 2.6    | 2.7    | 48     | 65     | 103    | 107    | 122    | MHQ1005P2N6CT000 |
| 2.5       | 2.5    | 2.6    | 2.6    | 2.7    | 48     | 65     | 103    | 107    | 122    | MHQ1005P2N6ST000 |
| 2.6       | 2.6    | 2.7    | 2.7    | 2.8    | 49     | 61     | 98     | 102    | 116    | MHQ1005P2N7BT000 |
| 2.6       | 2.6    | 2.7    | 2.7    | 2.8    | 49     | 61     | 98     | 102    | 116    | MHQ1005P2N7CT000 |
| 2.6       | 2.6    | 2.7    | 2.7    | 2.8    | 49     | 61     | 98     | 102    | 116    | MHQ1005P2N7ST000 |
| 2.7       | 2.7    | 2.8    | 2.8    | 2.9    | 46     | 58     | 100    | 105    | 123    | MHQ1005P2N8BT000 |
| 2.7       | 2.7    | 2.8    | 2.8    | 2.9    | 46     | 58     | 100    | 105    | 123    | MHQ1005P2N8CT000 |
| 2.7       | 2.7    | 2.8    | 2.8    | 2.9    | 46     | 58     | 100    | 105    | 123    | MHQ1005P2N8ST000 |
| 2.8       | 2.8    | 2.9    | 2.9    | 3.0    | 45     | 58     | 99     | 103    | 120    | MHQ1005P2N9BT000 |
| 2.8       | 2.8    | 2.9    | 2.9    | 3.0    | 45     | 58     | 99     | 103    | 120    | MHQ1005P2N9CT000 |
| 2.8       | 2.8    | 2.9    | 2.9    | 3.0    | 45     | 58     | 99     | 103    | 120    | MHQ1005P2N9ST000 |
| 2.9       | 2.9    | 3.0    | 3.0    | 3.1    | 49     | 62     | 102    | 106    | 120    | MHQ1005P3N0BT000 |
| 2.9       | 2.9    | 3.0    | 3.0    | 3.1    | 49     | 62     | 102    | 106    | 120    | MHQ1005P3N0CT000 |
| 2.9       | 2.9    | 3.0    | 3.0    | 3.1    | 49     | 62     | 102    | 106    | 120    | MHQ1005P3N0ST000 |
| 3.0       | 3.0    | 3.1    | 3.1    | 3.2    | 45     | 58     | 99     | 104    | 121    | MHQ1005P3N1BT000 |
| 3.0       | 3.0    | 3.1    | 3.1    | 3.2    | 45     | 58     | 99     | 104    | 121    | MHQ1005P3N1CT000 |
| 3.0       | 3.0    | 3.1    | 3.1    | 3.2    | 45     | 58     | 99     | 104    | 121    | MHQ1005P3N1ST000 |
| 3.1       | 3.1    | 3.2    | 3.2    | 3.3    | 45     | 58     | 99     | 106    | 121    | MHQ1005P3N2BT000 |
| 3.1       | 3.1    | 3.2    | 3.2    | 3.3    | 45     | 58     | 99     | 106    | 121    | MHQ1005P3N2CT000 |
| 3.1       | 3.1    | 3.2    | 3.2    | 3.3    | 45     | 58     | 99     | 106    | 121    | MHQ1005P3N2ST000 |
| 3.2       | 3.2    | 3.3    | 3.4    | 3.4    | 48     | 60     | 96     | 101    | 115    | MHQ1005P3N3BT000 |
| 3.2       | 3.2    | 3.3    | 3.4    | 3.4    | 48     | 60     | 96     | 101    | 115    | MHQ1005P3N3CT000 |
| 3.2       | 3.2    | 3.3    | 3.4    | 3.4    | 48     | 60     | 96     | 101    | 115    | MHQ1005P3N3ST000 |
| 3.3       | 3.3    | 3.4    | 3.5    | 3.5    | 45     | 57     | 96     | 102    | 118    | MHQ1005P3N4BT000 |
| 3.3       | 3.3    | 3.4    | 3.5    | 3.5    | 45     | 57     | 96     | 102    | 118    | MHQ1005P3N4CT000 |
| 3.3       | 3.3    | 3.4    | 3.5    | 3.5    | 45     | 57     | 96     | 102    | 118    | MHQ1005P3N4ST000 |
| 3.4       | 3.4    | 3.5    | 3.6    | 3.6    | 43     | 57     | 89     | 92     | 104    | MHQ1005P3N5BT000 |
| 3.4       | 3.4    | 3.5    | 3.6    | 3.6    | 43     | 57     | 89     | 92     | 104    | MHQ1005P3N5CT000 |
| 3.4       | 3.4    | 3.5    | 3.6    | 3.6    | 43     | 57     | 89     | 92     | 104    | MHQ1005P3N5ST000 |
| 3.5       | 3.5    | 3.6    | 3.6    | 3.7    | 43     | 56     | 91     | 96     | 110    | MHQ1005P3N6BT000 |
| 3.5       | 3.5    | 3.6    | 3.6    | 3.7    | 43     | 56     | 91     | 96     | 110    | MHQ1005P3N6CT000 |
| 3.5       | 3.5    | 3.6    | 3.6    | 3.7    | 43     | 56     | 91     | 96     | 110    | MHQ1005P3N6ST000 |
| 3.6       | 3.6    | 3.7    | 3.8    | 3.9    | 46     | 57     | 96     | 100    | 114    | MHQ1005P3N7BT000 |
| 3.6       | 3.6    | 3.7    | 3.8    | 3.9    | 46     | 57     | 96     | 100    | 114    | MHQ1005P3N7CT000 |
| 3.6       | 3.6    | 3.7    | 3.8    | 3.9    | 46     | 57     | 96     | 100    | 114    | MHQ1005P3N7ST000 |
| 3.7       | 3.7    | 3.9    | 3.9    | 4.0    | 45     | 59     | 93     | 96     | 109    | MHQ1005P3N8BT000 |
| 3.7       | 3.7    | 3.9    | 3.9    | 4.0    | 45     | 59     | 93     | 96     | 109    | MHQ1005P3N8CT000 |
| 3.7       | 3.7    | 3.9    | 3.9    | 4.0    | 45     | 59     | 93     | 96     | 109    | MHQ1005P3N8ST000 |

○ Measurement equipment

| Product No.  | Manufacturer          |
|--------------|-----------------------|
| 4291B+16193A | Keysight Technologies |

\* Equivalent measurement equipment may be used.

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

# 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 |                  |
| 3.8       | 3.8    | 4.0    | 4.0    | 4.1    | 48     | 61     | 96     | 99     | 111    | MHQ1005P3N9BT000 |
| 3.8       | 3.8    | 4.0    | 4.0    | 4.1    | 48     | 61     | 96     | 99     | 111    | MHQ1005P3N9CT000 |
| 3.8       | 3.8    | 4.0    | 4.0    | 4.1    | 48     | 61     | 96     | 99     | 111    | MHQ1005P3N9ST000 |
| 4.0       | 4.0    | 4.2    | 4.3    | 4.4    | 46     | 59     | 98     | 101    | 115    | MHQ1005P4N1BT000 |
| 4.0       | 4.0    | 4.2    | 4.3    | 4.4    | 46     | 59     | 98     | 101    | 115    | MHQ1005P4N1CT000 |
| 4.0       | 4.0    | 4.2    | 4.3    | 4.4    | 46     | 59     | 98     | 101    | 115    | MHQ1005P4N1ST000 |
| 4.2       | 4.2    | 4.4    | 4.5    | 4.6    | 47     | 60     | 95     | 97     | 107    | MHQ1005P4N3BT000 |
| 4.2       | 4.2    | 4.4    | 4.5    | 4.6    | 47     | 60     | 95     | 97     | 107    | MHQ1005P4N3CT000 |
| 4.2       | 4.2    | 4.4    | 4.5    | 4.6    | 47     | 60     | 95     | 97     | 107    | MHQ1005P4N3ST000 |
| 4.6       | 4.6    | 4.8    | 4.9    | 5.0    | 44     | 56     | 89     | 93     | 102    | MHQ1005P4N7BT000 |
| 4.6       | 4.6    | 4.8    | 4.9    | 5.0    | 44     | 56     | 89     | 93     | 102    | MHQ1005P4N7CT000 |
| 4.6       | 4.6    | 4.8    | 4.9    | 5.0    | 44     | 56     | 89     | 93     | 102    | MHQ1005P4N7ST000 |
| 5.0       | 5.0    | 5.2    | 5.3    | 5.5    | 43     | 55     | 86     | 90     | 99     | MHQ1005P5N1BT000 |
| 5.0       | 5.0    | 5.2    | 5.3    | 5.5    | 43     | 55     | 86     | 90     | 99     | MHQ1005P5N1CT000 |
| 5.0       | 5.0    | 5.2    | 5.3    | 5.5    | 43     | 55     | 86     | 90     | 99     | MHQ1005P5N1ST000 |
| 5.5       | 5.5    | 5.8    | 5.9    | 6.1    | 43     | 54     | 84     | 87     | 94     | MHQ1005P5N6BT000 |
| 5.5       | 5.5    | 5.8    | 5.9    | 6.1    | 43     | 54     | 84     | 87     | 94     | MHQ1005P5N6CT000 |
| 5.5       | 5.5    | 5.8    | 5.9    | 6.1    | 43     | 54     | 84     | 87     | 94     | MHQ1005P5N6ST000 |
| 5.7       | 5.7    | 6.1    | 6.2    | 6.5    | 43     | 57     | 84     | 87     | 94     | MHQ1005P5N8BT000 |
| 5.7       | 5.7    | 6.1    | 6.2    | 6.5    | 43     | 57     | 84     | 87     | 94     | MHQ1005P5N8CT000 |
| 5.7       | 5.7    | 6.1    | 6.2    | 6.5    | 43     | 57     | 84     | 87     | 94     | MHQ1005P5N8ST000 |
| 6.1       | 6.1    | 6.6    | 6.7    | 7.0    | 45     | 57     | 85     | 87     | 93     | MHQ1005P6N2BT000 |
| 6.1       | 6.1    | 6.6    | 6.7    | 7.0    | 45     | 57     | 85     | 87     | 93     | MHQ1005P6N2CT000 |
| 6.1       | 6.1    | 6.6    | 6.7    | 7.0    | 45     | 57     | 85     | 87     | 93     | MHQ1005P6N2ST000 |
| 6.7       | 6.7    | 7.3    | 7.5    | 7.9    | 45     | 58     | 85     | 88     | 92     | MHQ1005P6N8GT000 |
| 6.7       | 6.7    | 7.3    | 7.5    | 7.9    | 45     | 58     | 85     | 88     | 92     | MHQ1005P6N8HT000 |
| 6.7       | 6.7    | 7.3    | 7.5    | 7.9    | 45     | 58     | 85     | 88     | 92     | MHQ1005P6N8JT000 |
| 7.1       | 7.2    | 7.7    | 7.9    | 8.3    | 40     | 52     | 77     | 80     | 84     | MHQ1005P7N3GT000 |
| 7.1       | 7.2    | 7.7    | 7.9    | 8.3    | 40     | 52     | 77     | 80     | 84     | MHQ1005P7N3HT000 |
| 7.1       | 7.2    | 7.7    | 7.9    | 8.3    | 40     | 52     | 77     | 80     | 84     | MHQ1005P7N3JT000 |
| 7.3       | 7.4    | 7.9    | 8.1    | 8.5    | 42     | 54     | 80     | 83     | 88     | MHQ1005P7N5GT000 |
| 7.3       | 7.4    | 7.9    | 8.1    | 8.5    | 42     | 54     | 80     | 83     | 88     | MHQ1005P7N5HT000 |
| 7.3       | 7.4    | 7.9    | 8.1    | 8.5    | 42     | 54     | 80     | 83     | 88     | MHQ1005P7N5JT000 |
| 8.0       | 8.1    | 9.0    | 9.4    | 10.0   | 44     | 56     | 80     | 81     | 82     | MHQ1005P8N2GT000 |
| 8.0       | 8.1    | 9.0    | 9.4    | 10.0   | 44     | 56     | 80     | 81     | 82     | MHQ1005P8N2HT000 |
| 8.0       | 8.1    | 9.0    | 9.4    | 10.0   | 44     | 56     | 80     | 81     | 82     | MHQ1005P8N2JT000 |
| 8.5       | 8.6    | 9.6    | 10.0   | 10.8   | 42     | 52     | 78     | 79     | 80     | MHQ1005P8N7GT000 |
| 8.5       | 8.6    | 9.6    | 10.0   | 10.8   | 42     | 52     | 78     | 79     | 80     | MHQ1005P8N7HT000 |
| 8.5       | 8.6    | 9.6    | 10.0   | 10.8   | 42     | 52     | 78     | 79     | 80     | MHQ1005P8N7JT000 |
| 8.9       | 9.1    | 10.1   | 10.5   | 11.3   | 43     | 54     | 77     | 78     | 79     | MHQ1005P9N1GT000 |
| 8.9       | 9.1    | 10.1   | 10.5   | 11.3   | 43     | 54     | 77     | 78     | 79     | MHQ1005P9N1HT000 |
| 8.9       | 9.1    | 10.1   | 10.5   | 11.3   | 43     | 54     | 77     | 78     | 79     | MHQ1005P9N1JT000 |

#### ○ Measurement equipment

| Product No.  | Manufacturer          |
|--------------|-----------------------|
| 4291B+16193A | Keysight 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     | MHQ1005P9N5GT000 |
| 9.3       | 9.4    | 10.6   | 11.1   | 12.0   | 42     | 54     | 75     | 75     | 75     | MHQ1005P9N5HT000 |
| 9.3       | 9.4    | 10.6   | 11.1   | 12.0   | 42     | 54     | 75     | 75     | 75     | MHQ1005P9N5JT000 |
| 10        | 10     | 11     | 12     | 13     | 42     | 54     | 73     | 74     | 74     | MHQ1005P10NGT000 |
| 10        | 10     | 11     | 12     | 13     | 42     | 54     | 73     | 74     | 74     | MHQ1005P10NHT000 |
| 10        | 10     | 11     | 12     | 13     | 42     | 54     | 73     | 74     | 74     | MHQ1005P10NJT000 |
| 11        | 11     | 13     | 13     | 14     | 41     | 52     | 70     | 70     | 69     | MHQ1005P11NGT000 |
| 11        | 11     | 13     | 13     | 14     | 41     | 52     | 70     | 70     | 69     | MHQ1005P11NHT000 |
| 11        | 11     | 13     | 13     | 14     | 41     | 52     | 70     | 70     | 69     | MHQ1005P11NJT000 |
| 12        | 12     | 14     | 15     | 17     | 40     | 50     | 66     | 65     | 61     | MHQ1005P12NGT000 |
| 12        | 12     | 14     | 15     | 17     | 40     | 50     | 66     | 65     | 61     | MHQ1005P12NHT000 |
| 12        | 12     | 14     | 15     | 17     | 40     | 50     | 66     | 65     | 61     | MHQ1005P12NJT000 |
| 13        | 13     | 16     | 17     | 19     | 42     | 53     | 66     | 66     | 61     | MHQ1005P13NGT000 |
| 13        | 13     | 16     | 17     | 19     | 42     | 53     | 66     | 66     | 61     | MHQ1005P13NHT000 |
| 13        | 13     | 16     | 17     | 19     | 42     | 53     | 66     | 66     | 61     | MHQ1005P13NJT000 |
| 15        | 15     | 19     | 21     | 26     | 39     | 48     | 57     | 54     | 46     | MHQ1005P15NGT000 |
| 15        | 15     | 19     | 21     | 26     | 39     | 48     | 57     | 54     | 46     | MHQ1005P15NHT000 |
| 15        | 15     | 19     | 21     | 26     | 39     | 48     | 57     | 54     | 46     | MHQ1005P15NJT000 |
| 16        | 16     | 20     | 21     | 25     | 34     | 43     | 54     | 52     | 49     | MHQ1005P16NGT000 |
| 16        | 16     | 20     | 21     | 25     | 34     | 43     | 54     | 52     | 49     | MHQ1005P16NHT000 |
| 16        | 16     | 20     | 21     | 25     | 34     | 43     | 54     | 52     | 49     | MHQ1005P16NJT000 |
| 18        | 18     | 23     | 25     | 30     | 39     | 49     | 60     | 57     | 51     | MHQ1005P18NGT000 |
| 18        | 18     | 23     | 25     | 30     | 39     | 49     | 60     | 57     | 51     | MHQ1005P18NHT000 |
| 18        | 18     | 23     | 25     | 30     | 39     | 49     | 60     | 57     | 51     | MHQ1005P18NJT000 |
| 19        | 19     | 25     | 28     | 35     | 39     | 49     | 59     | 55     | 46     | MHQ1005P19NGT000 |
| 19        | 19     | 25     | 28     | 35     | 39     | 49     | 59     | 55     | 46     | MHQ1005P19NHT000 |
| 19        | 19     | 25     | 28     | 35     | 39     | 49     | 59     | 55     | 46     | MHQ1005P19NJT000 |
| 20        | 20     | 26     | 29     | 35     | 38     | 47     | 56     | 53     | 43     | MHQ1005P20NGT000 |
| 20        | 20     | 26     | 29     | 35     | 38     | 47     | 56     | 53     | 43     | MHQ1005P20NHT000 |
| 20        | 20     | 26     | 29     | 35     | 38     | 47     | 56     | 53     | 43     | MHQ1005P20NJT000 |
| 22        | 23     | 31     | 35     | —      | 34     | 42     | 47     | 43     | —      | MHQ1005P22NGT000 |
| 22        | 23     | 31     | 35     | —      | 34     | 42     | 47     | 43     | —      | MHQ1005P22NHT000 |
| 22        | 23     | 31     | 35     | —      | 34     | 42     | 47     | 43     | —      | MHQ1005P22NJT000 |
| 23        | 24     | 33     | 37     | —      | 41     | 50     | 53     | 48     | —      | MHQ1005P23NGT000 |
| 23        | 24     | 33     | 37     | —      | 41     | 50     | 53     | 48     | —      | MHQ1005P23NHT000 |
| 23        | 24     | 33     | 37     | —      | 41     | 50     | 53     | 48     | —      | MHQ1005P23NJT000 |
| 24        | 25     | 35     | 41     | —      | 39     | 49     | 50     | 44     | —      | MHQ1005P24NGT000 |
| 24        | 25     | 35     | 41     | —      | 39     | 49     | 50     | 44     | —      | MHQ1005P24NHT000 |
| 24        | 25     | 35     | 41     | —      | 39     | 49     | 50     | 44     | —      | MHQ1005P24NJT000 |
| 27        | 28     | 42     | 50     | —      | 37     | 45     | 44     | 37     | —      | MHQ1005P27NGT000 |
| 27        | 28     | 42     | 50     | —      | 37     | 45     | 44     | 37     | —      | MHQ1005P27NHT000 |
| 27        | 28     | 42     | 50     | —      | 37     | 45     | 44     | 37     | —      | MHQ1005P27NJT000 |
| 30        | 32     | 55     | —      | —      | 33     | 40     | 34     | —      | —      | MHQ1005P30NGT000 |
| 30        | 32     | 55     | —      | —      | 33     | 40     | 34     | —      | —      | MHQ1005P30NHT000 |
| 30        | 32     | 55     | —      | —      | 33     | 40     | 34     | —      | —      | MHQ1005P30NJT000 |

#### ○ Measurement equipment

| Product No.  | Manufacturer          |
|--------------|-----------------------|
| 4291B+16193A | Keysight 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     | —      | —      | MHQ1005P33NGT000 |
| 33        | 35     | 59     | —      | —      | 37     | 44     | 37     | —      | —      | MHQ1005P33NHT000 |
| 33        | 35     | 59     | —      | —      | 37     | 44     | 37     | —      | —      | MHQ1005P33NJT000 |
| 36        | 39     | 69     | —      | —      | 35     | 42     | 32     | —      | —      | MHQ1005P36NGT000 |
| 36        | 39     | 69     | —      | —      | 35     | 42     | 32     | —      | —      | MHQ1005P36NHT000 |
| 36        | 39     | 69     | —      | —      | 35     | 42     | 32     | —      | —      | MHQ1005P36NJT000 |
| 40        | 43     | —      | —      | —      | 33     | 38     | —      | —      | —      | MHQ1005P39NGT000 |
| 40        | 43     | —      | —      | —      | 33     | 38     | —      | —      | —      | MHQ1005P39NHT000 |
| 40        | 43     | —      | —      | —      | 33     | 38     | —      | —      | —      | MHQ1005P39NJT000 |
| 41        | 44     | —      | —      | —      | 36     | 42     | —      | —      | —      | MHQ1005P40NGT000 |
| 41        | 44     | —      | —      | —      | 36     | 42     | —      | —      | —      | MHQ1005P40NHT000 |
| 41        | 44     | —      | —      | —      | 36     | 42     | —      | —      | —      | MHQ1005P40NJT000 |
| 44        | 47     | —      | —      | —      | 36     | 42     | —      | —      | —      | MHQ1005P43NGT000 |
| 44        | 47     | —      | —      | —      | 36     | 42     | —      | —      | —      | MHQ1005P43NHT000 |
| 44        | 47     | —      | —      | —      | 36     | 42     | —      | —      | —      | MHQ1005P43NJT000 |
| 48        | 53     | —      | —      | —      | 34     | 38     | —      | —      | —      | MHQ1005P47NGT000 |
| 48        | 53     | —      | —      | —      | 34     | 38     | —      | —      | —      | MHQ1005P47NHT000 |
| 48        | 53     | —      | —      | —      | 34     | 38     | —      | —      | —      | MHQ1005P47NJT000 |
| 52        | 58     | —      | —      | —      | 35     | 40     | —      | —      | —      | MHQ1005P51NGT000 |
| 52        | 58     | —      | —      | —      | 35     | 40     | —      | —      | —      | MHQ1005P51NHT000 |
| 52        | 58     | —      | —      | —      | 35     | 40     | —      | —      | —      | MHQ1005P51NJT000 |
| 58        | 65     | —      | —      | —      | 34     | 37     | —      | —      | —      | MHQ1005P56NGT000 |
| 58        | 65     | —      | —      | —      | 34     | 37     | —      | —      | —      | MHQ1005P56NHT000 |
| 58        | 65     | —      | —      | —      | 34     | 37     | —      | —      | —      | MHQ1005P56NJT000 |
| 65        | 74     | —      | —      | —      | 34     | 37     | —      | —      | —      | MHQ1005P62NGT000 |
| 65        | 74     | —      | —      | —      | 34     | 37     | —      | —      | —      | MHQ1005P62NHT000 |
| 65        | 74     | —      | —      | —      | 34     | 37     | —      | —      | —      | MHQ1005P62NJT000 |
| 72        | 82     | —      | —      | —      | 35     | 37     | —      | —      | —      | MHQ1005P68NGT000 |
| 72        | 82     | —      | —      | —      | 35     | 37     | —      | —      | —      | MHQ1005P68NHT000 |
| 72        | 82     | —      | —      | —      | 35     | 37     | —      | —      | —      | MHQ1005P68NJT000 |
| 77        | 90     | —      | —      | —      | 34     | 36     | —      | —      | —      | MHQ1005P72NGT000 |
| 77        | 90     | —      | —      | —      | 34     | 36     | —      | —      | —      | MHQ1005P72NHT000 |
| 77        | 90     | —      | —      | —      | 34     | 36     | —      | —      | —      | MHQ1005P72NJT000 |
| 80        | 93     | —      | —      | —      | 35     | 37     | —      | —      | —      | MHQ1005P75NGT000 |
| 80        | 93     | —      | —      | —      | 35     | 37     | —      | —      | —      | MHQ1005P75NHT000 |
| 80        | 93     | —      | —      | —      | 35     | 37     | —      | —      | —      | MHQ1005P75NJT000 |
| 88        | 107    | —      | —      | —      | 35     | 35     | —      | —      | —      | MHQ1005P82NGT000 |
| 88        | 107    | —      | —      | —      | 35     | 35     | —      | —      | —      | MHQ1005P82NHT000 |
| 88        | 107    | —      | —      | —      | 35     | 35     | —      | —      | —      | MHQ1005P82NJT000 |
| 98        | 121    | —      | —      | —      | 33     | 32     | —      | —      | —      | MHQ1005P91NGT000 |
| 98        | 121    | —      | —      | —      | 33     | 32     | —      | —      | —      | MHQ1005P91NHT000 |
| 98        | 121    | —      | —      | —      | 33     | 32     | —      | —      | —      | MHQ1005P91NJT000 |
| 111       | 143    | —      | —      | —      | 33     | 33     | —      | —      | —      | MHQ1005PR10GT000 |
| 111       | 143    | —      | —      | —      | 33     | 33     | —      | —      | —      | MHQ1005PR10HT000 |
| 111       | 143    | —      | —      | —      | 33     | 33     | —      | —      | —      | MHQ1005PR10JT000 |

#### ○ Measurement equipment

| Product No.  | Manufacturer          |
|--------------|-----------------------|
| 4291B+16193A | Keysight 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     | —      | —      | —      | MHQ1005PR11GT000 |
| 124       | 169    | —      | —      | —      | 31     | 28     | —      | —      | —      | MHQ1005PR11HT000 |
| 124       | 169    | —      | —      | —      | 31     | 28     | —      | —      | —      | MHQ1005PR11JT000 |
| 138       | 197    | —      | —      | —      | 30     | 26     | —      | —      | —      | MHQ1005PR12GT000 |
| 138       | 197    | —      | —      | —      | 30     | 26     | —      | —      | —      | MHQ1005PR12HT000 |
| 138       | 197    | —      | —      | —      | 30     | 26     | —      | —      | —      | MHQ1005PR12JT000 |
| 150       | 220    | —      | —      | —      | 31     | 23     | —      | —      | —      | MHQ1005PR13GT000 |
| 150       | 220    | —      | —      | —      | 31     | 23     | —      | —      | —      | MHQ1005PR13HT000 |
| 150       | 220    | —      | —      | —      | 31     | 23     | —      | —      | —      | MHQ1005PR13JT000 |
| 177       | 276    | —      | —      | —      | 30     | 22     | —      | —      | —      | MHQ1005PR15GT000 |
| 177       | 276    | —      | —      | —      | 30     | 22     | —      | —      | —      | MHQ1005PR15HT000 |
| 177       | 276    | —      | —      | —      | 30     | 22     | —      | —      | —      | MHQ1005PR15JT000 |

#### ○ Measurement equipment

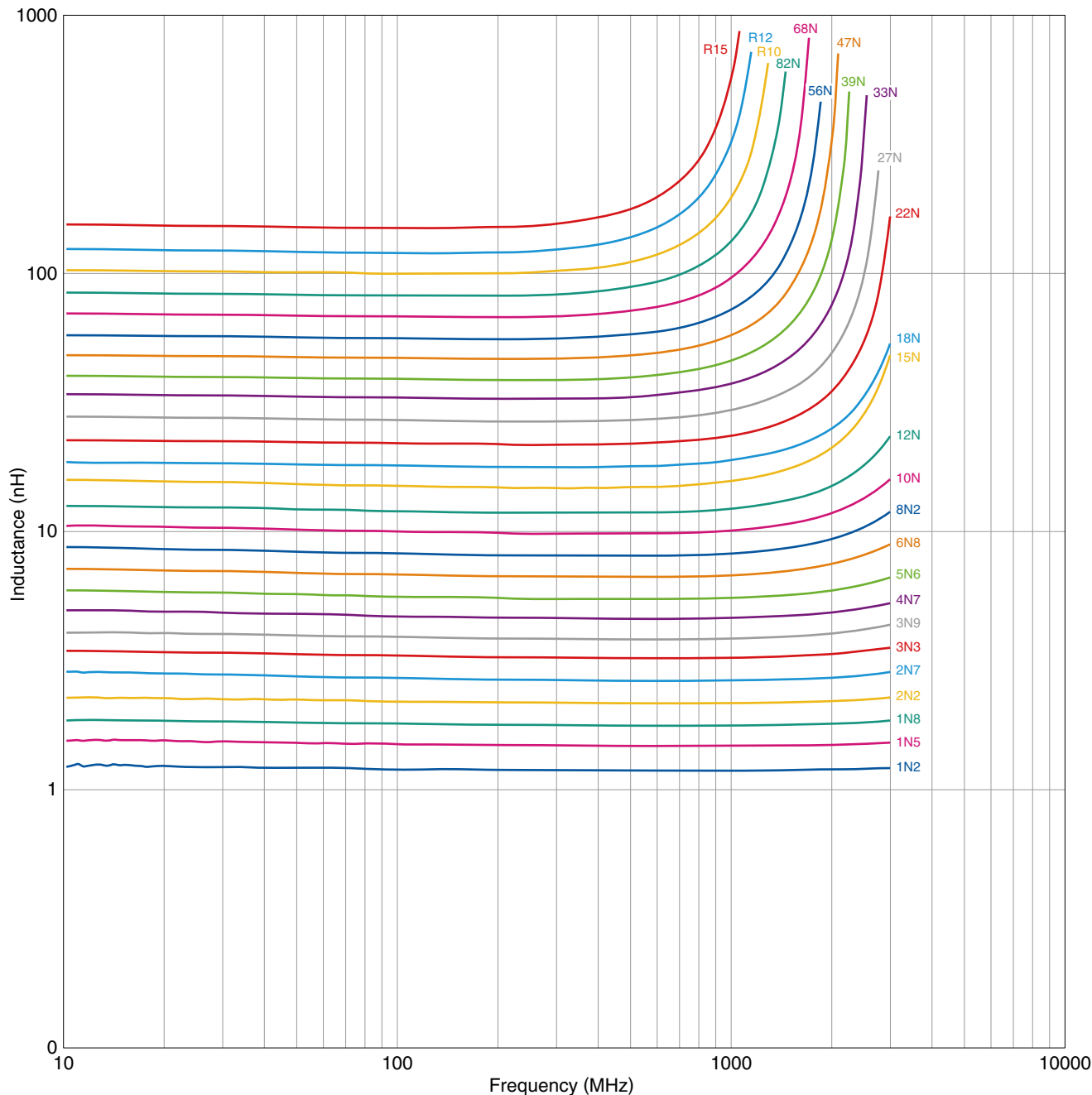
| Product No.  | Manufacturer          |
|--------------|-----------------------|
| 4291B+16193A | Keysight Technologies |

\* Equivalent measurement equipment may be used.

# MHQ1005P type

## ELECTRICAL CHARACTERISTICS

### L FREQUENCY CHARACTERISTICS GRAPH (EXAMPLE)



○ Measurement equipment

| Product No.  | Manufacturer          |
|--------------|-----------------------|
| E4991+16193A | Keysight Technologies |

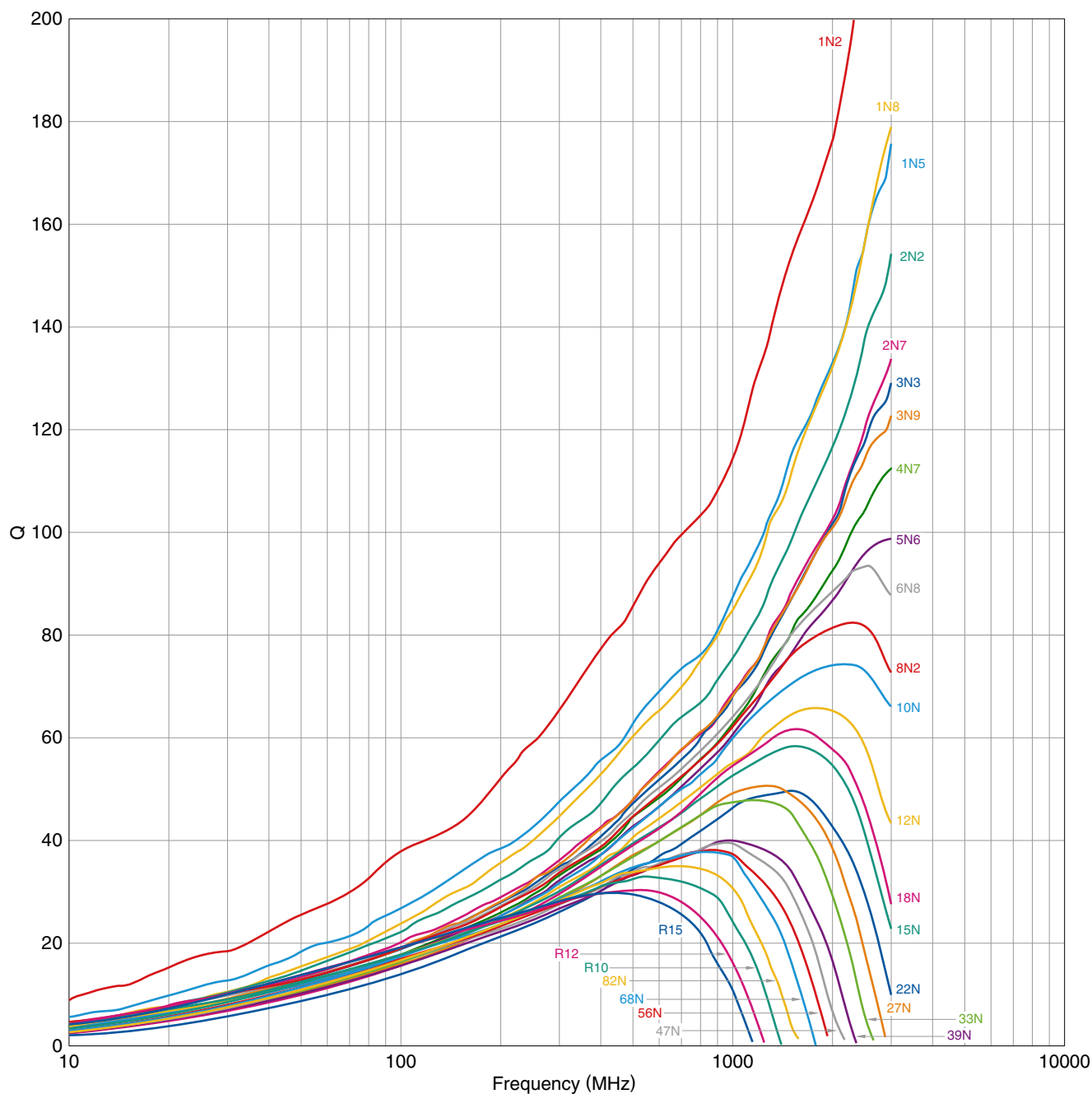
\* Equivalent measurement equipment may be used.

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

# MHQ1005P type

## ELECTRICAL CHARACTERISTICS

### Q FREQUENCY CHARACTERISTICS GRAPH (EXAMPLE)



○ Measurement equipment

| Product No.  | Manufacturer          |
|--------------|-----------------------|
| E4991+16193A | Keysight Technologies |

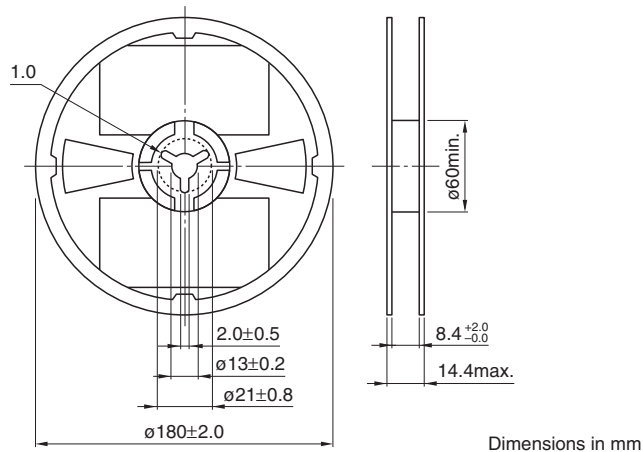
\* Equivalent measurement equipment may be used.

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

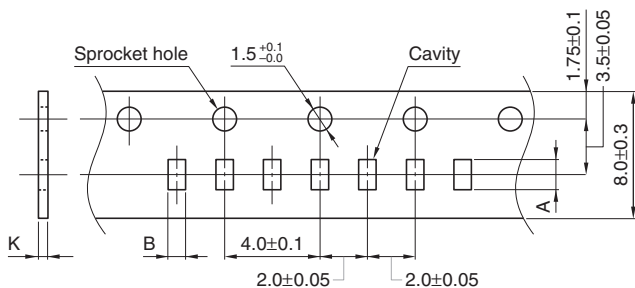
# MHQ1005P type

## PACKAGING STYLE

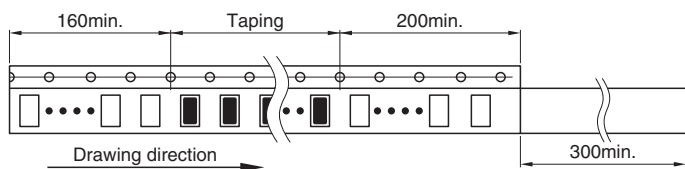
### REEL DIMENSIONS



### TAPE DIMENSIONS



| Type            | A         | B         | K        |
|-----------------|-----------|-----------|----------|
| <b>MHQ1005P</b> | 1.15±0.10 | 0.75±0.10 | 0.8 max. |



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