

Part Numbering

RF Inductors

1Product ID

| Product ID | |
|------------|-----------------------------|
| LQ | Chip Inductors (Chip Coils) |

2Structure

| Code | Structure | |
|------|--|--|
| G | Multilayer Type (Air-core Inductors (Coils)) | |
| н | Wire Wound Type (Ferrite Core) | |
| Р | Film Type | |
| w | Wire Wound Type (Air-core Inductors (Coils)) | |
| | Wire Wound Type (Ferrite Core) | |

2Dimensions (LxW)

| Code | Nominal Dimensions (LxW) | Size Code (in inch) |
|------|--------------------------|---------------------|
| 02 | 0.4×0.2mm | 01005 |
| 03 | 0.6×0.3mm | 0201 |
| 04 | 0.8×0.4mm | 03015 |
| 15 | 1.0×0.5mm | 0402 |
| 18 | 1.6×0.8mm | 0603 |
| 21 | 2.0×1.25mm | 0805 |
| 2B | 2.0×1.5mm | 0805 |
| 2U | 2.5×2.0mm | 1008 |
| 31 | 3.2×1.6mm | 1206 |

Applications and Characteristics

| Code | Series Applications and Characteristics | | | |
|------|---|---------------------------------------|--|--|
| | LQG | Multilayer Air-core Inductors (Coils) | | |
| н | LQP | Film Type (High Q Type) | | |
| М | | Film Type | | |
| Р | LQP | Film Type (For Large Current) | | |
| Т | | Film Type (Low DC Resistance Type) | | |
| Α | 1.0047 | High Q Type (UHF-SHF) | | |
| н | LQW | High Q Type (VHF-UHF) | | |
| Н | LQH | for High-frequency Resonant Circuit | | |

GCategory

| Code | Category | | | |
|------|----------|----------------------|--|--|
| G/N | | Standard Type | | |
| s | | | | |
| Q | General | High Q Type | | |
| W | | Specialty Dimensions | | |

6Inductance

⚠Note • Please read rating and ⚠CAUTION (for storage, operating, rating, soldering, mounting and handling) in this catalog to prevent smoking and/or burning, etc.
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Expressed by three-digit alphanumerics. The unit is micro-henry (µH). The first and second figures are significant digits, and the third figure expresses the number of zeros that follow the two figures. If there is a decimal point, it is expressed by the capital letter "R." In this case, all figures are significant digits. If inductance is less than $0.1\mu\text{H}$, the inductance code is expressed by a combination of two figures and the capital letter "N," and the unit of inductance is nano-henry (nH). The capital letter "N" indicates the unit of "nH," and also expresses a decimal point. In this case, all figures are significant digits. For those products whose inductance values are specified using three designated digits, these values may be indicated using the closest two digits instead.

7 Inductance Tolerance

| Code | Inductance Tolerance |
|------|----------------------|
| В | ±0.1nH |
| С | ±0.2nH |
| D | ±0.5nH |
| F | ±1% |
| G | ±2% |
| Н | ±3% |
| J | ±5% |
| K | ±10% |
| S | ±0.3nH |
| W | ±0.05nH |

8 Features

| Code | Features | Series |
|------|---|-------------------|
| 0 | Standard Type | LQG/LQP/LQW/LQH*1 |
| 1 | High-Q/Low DC Resistance | LQW15A/18A/2BH |
| 8 | Low DC Resistance, Large Rated Current | LQW15A/LQW18A |

^{*1} Except for LQH32 Series

Electrode

•Lead (Pb) Free

| Code | Electrode | Series |
|------|-----------|--|
| 0 | | LQG18H/LQW□□A/LQW□□C |
| 2 | Sn | LQG15H/LQP02T/LQP03T/ LQP15T/LQP□□M |
| 3 | LF Solder | LQW□□H/LQH |

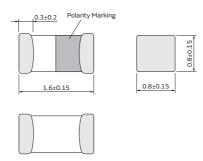
Packaging

| Code | Packaging | Series |
|------|-------------------------------|------------------------------|
| K | Embossed Taping (ø330mm Reel) | LQH/LQW□□H* ² |
| L/E | Embossed Taping (ø180mm Reel) | LQH/LQW2BA/LQW2UA/LQW□□H/LQP |
| В | Bulk | LQW/LQG/LQP |
| J | Paper Taping (ø330mm Reel) | LQW18A/LQG/LQP*1 |
| D | Paper Taping (ø180mm Reel) | LQW□□A*3 /LQG/LQP |

RF Inductors

LQG18HN_00 Series 0603 (1608) inch (mm)

Appearance/Dimensions



Packaging

| Code | Packaging | Minimum Quantity |
|------|---------------------|---------------------|
| D | ø180mm Paper Taping | 4000 |
| J | ø330mm Paper Taping | 10000 |
| В | Packing in Bulk | 1000 |

(in mm)

Rated Value (□: packaging code)

| Part Number | Inductance | Inductance Test Frequency | Q (min.) | Q Test Frequency | Rated Current | Max. of DC Resistance | S.R.F.* (min.) |
|----------------|--------------|------------------------------|----------|------------------|---------------|-----------------------|----------------|
| LQG18HN1N2S00□ | 1.2nH ±0.3nH | 100MHz | 12 | 100MHz | 1100mA | 0.10Ω | 6000MHz |
| LQG18HN1N5S00□ | 1.5nH ±0.3nH | 100MHz | 12 | 100MHz | 1100mA | 0.10Ω | 6000MHz |
| LQG18HN1N8S00□ | 1.8nH ±0.3nH | 100MHz | 12 | 100MHz | 1100mA | 0.10Ω | 6000MHz |
| LQG18HN2N2S00□ | 2.2nH ±0.3nH | 100MHz | 12 | 100MHz | 1100mA | 0.10Ω | 6000MHz |
| LQG18HN2N7S00□ | 2.7nH ±0.3nH | 100MHz | 12 | 100MHz | 1000mA | 0.12Ω | 6000MHz |
| LQG18HN3N3S00□ | 3.3nH ±0.3nH | 100MHz | 12 | 100MHz | 1000mA | 0.12Ω | 6000MHz |
| LQG18HN3N9S00□ | 3.9nH ±0.3nH | 100MHz | 12 | 100MHz | 900mA | 0.15Ω | 6000MHz |
| LQG18HN4N7S00□ | 4.7nH ±0.3nH | 100MHz | 12 | 100MHz | 900mA | 0.15Ω | 6000MHz |
| LQG18HN5N6S00□ | 5.6nH ±0.3nH | 100MHz | 12 | 100MHz | 800mA | 0.20Ω | 5000MHz |
| LQG18HN6N8J00□ | 6.8nH ±5% | 100MHz | 12 | 100MHz | 800mA | 0.20Ω | 5000MHz |
| LQG18HN8N2J00□ | 8.2nH ±5% | 100MHz | 12 | 100MHz | 800mA | 0.20Ω | 4000MHz |
| LQG18HN10NJ00□ | 10nH ±5% | 100MHz | 12 | 100MHz | 650mA | 0.30Ω | 3500MHz |
| LQG18HN12NJ00□ | 12nH ±5% | 100MHz | 12 | 100MHz | 600mA | 0.35Ω | 3000MHz |
| LQG18HN15NJ00□ | 15nH ±5% | 100MHz | 12 | 100MHz | 600mA | 0.35Ω | 2800MHz |
| LQG18HN18NJ00□ | 18nH ±5% | 100MHz | 12 | 100MHz | 600mA | 0.37Ω | 2600MHz |
| LQG18HN22NJ00□ | 22nH ±5% | 100MHz | 12 | 100MHz | 500mA | 0.50Ω | 2300MHz |
| LQG18HN27NJ00□ | 27nH ±5% | 100MHz | 12 | 100MHz | 500mA | 0.54Ω | 2000MHz |
| LQG18HN33NJ00□ | 33nH ±5% | 100MHz | 12 | 100MHz | 500mA | 0.54Ω | 1700MHz |
| LQG18HN39NJ00□ | 39nH ±5% | 100MHz | 12 | 100MHz | 450mA | 0.60Ω | 1500MHz |
| LQG18HN47NJ00□ | 47nH ±5% | 100MHz | 12 | 100MHz | 400mA | 0.70Ω | 1200MHz |
| LQG18HN56NJ00□ | 56nH ±5% | 100MHz | 12 | 100MHz | 400mA | 0.75Ω | 1100MHz |
| LQG18HN68NJ00□ | 68nH ±5% | 100MHz | 12 | 100MHz | 400mA | 0.80Ω | 1000MHz |
| LQG18HN82NJ00□ | 82nH ±5% | 100MHz | 12 | 100MHz | 350mA | 0.85Ω | 900MHz |
| LQG18HNR10J00□ | 100nH ±5% | 100MHz | 12 | 100MHz | 350mA | 0.90Ω | 800MHz |

Operating temp. range (Self-temp. rise not included): -40 to 85°C

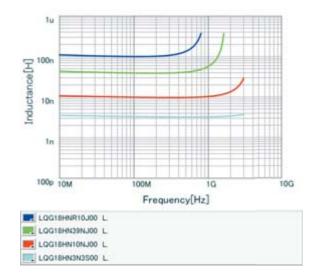
For reflow soldering only

*S.R.F.: Self-Resonant Frequency

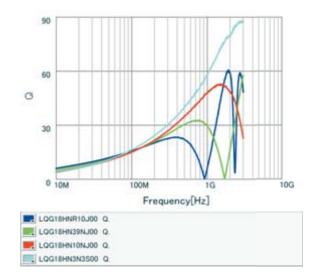
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Inductance-Frequency Characteristics (Typ.)



Q-Frequency Characteristics (Typ.)



Inductors for General Circuits

RF Inductors \(\text{\(\text{Caution/Notice} \)



Rating

1. About the Rated Current

Do not use products beyond the rated current as this may create excessive heat and deteriorate the insulation resistance. 2. About Excessive Surge Current

Surge current (pulse current or rush current) greater than the specified rated current applied to the product may cause a critical failure, such as an open circuit or burnout caused by excessive temperature rise.

Please contact us in advance if applying a surge current.

Notice

Storage and Operating Condition

<Operating Environment>

Do not use products in a chemical atmosphere such as chlorine gas, acid or sulfide gas.

- <Storage Requirements>
- 1. Storage Period

The LQG series should be used within 6 months; the other products should be used within 12 months.

Check solderability if this period is exceeded.

- 2. Storage Conditions
 - (1) Store products in a warehouse in compliance with the following conditions:

Temperature: -10 to +40 degrees C. Humidity: 15 to 85% (relative humidity) Do not subject products to rapid changes in temperature and humidity.

Do not store them in a chemical atmosphere such as one containing sulfurous acid gas or alkaline gas. This will prevent electrode oxidation, which causes poor solderability and possible corrosion of inductors.

- (2) Do not store products in bulk packaging to prevent collision among inductors, which causes core chipping and wire breakage.
- (3) Store products on pallets to protect from humidity, dust, etc.
- (4) Avoid heat shock, vibration, direct sunlight, etc.

Handling

This item is designed to have sufficient strength, but handle with care to avoid chipping or breaking its ceramic structure.

LQW_A/LQW_H series

- To prevent breaking the wire, avoid touching with sharp materials, such as tweezers or the bristles of a cleaning brush, to the wire wound portion.
- To prevent breaking the core, avoid applying excessive mechanical shock to products mounted on the board.
- In some mounting machines, when picking up components, a support pin pushes the components up from the bottom of the base tape. In this case, please remove the support pin. The support pin may damage the components and break the wire.
- In rare cases, the laser recognition cannot recognize this component. Please contact us when you use laser recognizion. (There is no problem with the permeation and reflection type.)

LQH_H series

- To prevent breaking the wire, avoid touching with sharp materials, such as tweezers or the bristles of a cleaning brush, to the wire wound portion of this product.
- To prevent breaking the core, avoid applying excessive mechanical shock to products mounted on the board.

LQG,LQP series (except LQP02_02/LQP03_02)

- The pattern of the chip Inductors is covered with protective film. Take care to avoid damaging the chip Inductors when handling it with pick-up nozzles, sharp instruments, etc.
- <Transportation>

Do not apply excessive vibration or mechanical shock to products.

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RF Inductors Soldering and Mounting

Continued from the preceding page.

<Resin Coating>

When coating products with resin, the relatively high resin curing stress may change inductance values.

For exterior coating, select resin carefully so that electrical and mechanical performance of the product is not affected. Prior to use, please evaluate reliability with the product mounted in your application set.

(LQW, LQH series)

An open circuit issue may occur by mechanical stress caused by the resin, amount/cured shape of resin, or operating conditions, etc. Some resins containing impurities or chloride may possibly generate chlorine by hydrolysis under some operating conditions, causing corrosion of the inductor wire and leading to an open circuit.

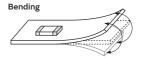
(LQP02_02/LQP03_02)

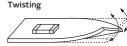
When products are coated with resin, please contact us in advance.

<Handling of a Substrate>

After mounting products on a substrate, do not apply any stress to the product caused by bending or twisting the substrate when cropping the substrate, inserting and removing a connector from the substrate, or tightening a screw to the substrate.

Excessive mechanical stress may cause cracking in the Product.

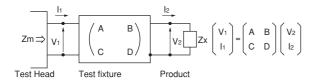




Measuring Method

Measuring Method of Inductance/Q

1. Residual elements and stray elements of test fixtures can be described by F-parameter as shown in the following:



2. The impedance of chip Inductors (chip coils) Zx and measured value Zm can be described by input/output current/voltage.

$$Zm = \frac{V_1}{I_1} \quad Zx = \frac{V_2}{I_2}$$

3. Thus, the relation between Zx and Zm is shown in the following:

$$Zx = \alpha \ \frac{Zm - \beta}{1 - Zm\Gamma}$$
 where, $\alpha = D \ / \ A = 1$
$$\beta = B \ / \ D = Zsm - (1 - Yom \ Zsm) \ Zss$$

$$\Gamma = C \ / \ A = Yom$$

Zsm: measured impedance of short chip
Zss: residual impedance of short chip*
Yom: measured admittance when opening the fixture

*Residual impedance of short chip

| Residual Impedance | Series |
|-----------------------|---------------------------------------|
| 0nH | LQG15H/LQP03TG |
| 0.110nH | LQP02HQ/LQP02TN/LQP02TQ |
| 0.464nH | LQW04AN |
| 0.480nH | LQP03HQ/LQP03TN_02/LQW03AW |
| 0.556nH | LQG15HN, LQW15A, LQP15M |
| 0.771nH | LQG18H, LQP18M, LQW18A,LQW21H/LQW2BAN |

4. Lx and Qx should be calculated with the following equation.

$$Lx = \frac{Im (Zx)}{2\pi f}$$
, $Qx = \frac{Im (Zx)}{Re (Zx)}$

Lx: Inductance of chip Inductors (chip coils)
Qx: Q of chip Inductors (chip coils)
f: Measuring frequency

Please contact us for LQW18AS, LQW2BAS, LQW2UAS, because they are different from other inductors regarding the inductance calculation method.

RF Inductors Soldering and Mounting

1. Standard Land Pattern Dimensions

A high Q value is achieved when the PCB electrode land pattern is designed so that it does not project beyond the chip Inductor's (chip coil's) electrode.

Land Pattern + Solder Resist Land Pattern Solder Resist (in mm)

| | | | | | (in mm) |
|--------------------|----------|-------------------------|-------------|-------------|-------------|
| Series | Standard | Land Dimensions | | | |
| LQG15H | | Part Number | a | ь | С |
| LQG18H | | LQG15H | 0.4 | 1.4 to 1.5 | 0.5 to 0.6 |
| LQP02TN LQP02TQ | | LQG18H | 0.6 to 0.8 | 1.8 to 2.2 | 0.6 to 0.8 |
| LQP03T | | LQP02TN | 0.16 to 0.2 | 0.4 to 0.56 | 0.2 to 0.23 |
| LQP15M | | LQP02HQ/TQ | 0.2 | 0.56 | 0.16 |
| LQP18M | | LQP03HQ | 0.3 | 0.9 | 0.25 to 0.3 |
| LQW03A | | LQP03TN/TG/PN | 0.2 to 0.3 | 0.8 to 0.9 | 0.2 to 0.3 |
| LQW04A LQW15A | | LQP03TQ | 0.3 | 0.9 | 0.25 |
| LQW13A LQW18A | <u> </u> | LQP15M | 0.4 | 1.4 to 1.5 | 0.5 to 0.6 |
| LQW21H | υ | LQP18M | 0.7 to 0.9 | 1.8 to 2.2 | 0.6 to 0.8 |
| LQW2BH | | LQW03A | 0.23 | 0.65 | 0.4 |
| LQW2BA | a | LQW04A | 0.4 | 1.0 | 0.4 |
| LQW2UA | b | LQW15A_00/10 | 0.5 | 1.2 | 0.65 |
| LQW31H LQH31H | | LQW15A_80 | 0.6 | 1.42 | 0.66 |
| | | LQW18AN_00/10/ AS_00 | 0.6 to 0.8 | 1.9 to 2.0 | 0.7 to 1.0 |
| | | LQW18A_80 | 0.86 | 2.0 | 1.15 |
| | | LQW21H | 1.0 | 2.6 | 1.2 |
| | | LQW2BH | 0.8 | 3.0 | 1.2 |
| | | LQW2BA | 0.76 | 2.8 | 1.78 |
| | | LQW2UA | 1.27 | 3.3 | 2.54 |
| | | LQH31H LQW31H | 1.0 | 4.5 | 1.5 |

Attention should be paid to potential magnetic coupling effects when using the Inductor (coil) as a resonator.

2. Standard Soldering Conditions

(1) Soldering method

Chip Inductors (Chip coils) can be flow or reflow

Please contact Murata regarding other soldering methods.

For LQG, LQP,

LQW03A/04A/15A/18A/21H/2BA/2UA series, please use reflow soldering.

Solder: Use Sn-3.0Ag-0.5Cu solder.

Flux: Use rosin-based flux, but not strongly acidic flux

(with chlorine content exceeding 0.2wt%).

Do not use water-soluble flux.

The flux used for the LQW03/04/15/18/21/2BA/ 2UA series should be a rosin-based flux that includes a middle activator equivalent to 0.06wt% to 0.1wt%

chlorine.

For additional mounting methods, please contact Murata.

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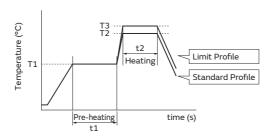


RF Inductors Soldering and Mounting

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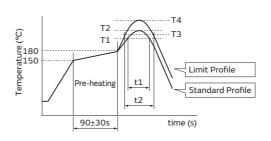
(2) Soldering profile

●Flow Soldering profile (Sn-3.0Ag-0.5Cu solder)



| Series | Dra h | eating | Standard Profile | | Limit Profile | | | |
|----------------------|------------|------------|------------------|------------|-----------------|------------|------------|-----------------|
| | Pie-ii | eating | Heating | | Cycle Heat | | ting | Cycle |
| | Temp. (T1) | Time. (t1) | Temp. (T2) | Time. (t2) | of flow | Temp. (T3) | Time. (t2) | of flow |
| LQW2BH/31H LQH31H | 150°C | 60s min. | 250°C | 4 to 6s | 2 times max. | 265±3°C | 5s max. | 2 times max. |

Reflow Soldering profile (Sn-3.0Ag-0.5Cu solder)



| | | Standar | d Profile | | Limit Profile | | | |
|--|------------|------------|---------------------|-----------------|---------------|------------|---------------------|-----------------|
| Series | Heating | | Peak Cycle | | Heating | | Peak temperature | Cycle |
| | Temp. (T1) | Time. (t1) | temperature (T2) | of reflow | Temp. (T3) | Time. (t2) | (T4) | of reflow |
| LQG15H/18H LQW03A/04A/15A/18A/21H LQW2BA/2UA LQP02T/03T/15M/18M LQW2BH/31H LQH31H | 220°C | 30 to 60s | 245±3°C | 2 times max. | 230°C | 60s max. | 260°C/10s | 2 times max. |

(3) Reworking with a Soldering Iron

*Except for LQP02T/LQW04AN/03AW/15AN_80 Series

Preheating at 150°C for 1 minute is required. Do not directly touch the ceramic element with the tip of the soldering iron. The reworking soldering conditions are as follows:

Soldering iron power output: 80W max.

Temperature of soldering iron tip: 350°C

Diameter of soldering iron end: 3.0mm max.

Soldering time: within 3 s

Please keep the fix time with the soldering iron within 2 times.

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Inductors for General Circuits

RF Inductors Soldering and Mounting

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3. Mounting Instructions

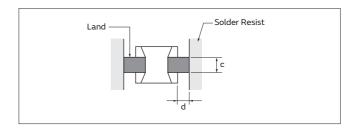
(1) Land Pattern Dimensions

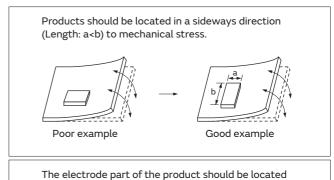
Large lands reduce the Q of the mounted chip. Also, large protruding land areas (bordered by lines having the dimensions "c" and "d" shown) cause floating and electrode leaching.

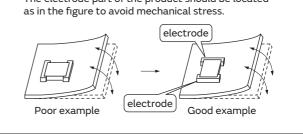
(2) Land Pattern Designing (LQW series) Please follow the recommended patterns. Otherwise, their performance, which includes electrical performance or solderability, may be affected, or result in "position shift" in the soldering process.

(3) PCB Warping

The PCB should be designed so that products are not subjected to mechanical stress caused by warping the board.







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RF Inductors Soldering and Mounting

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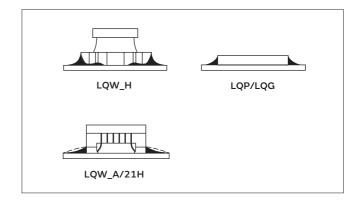
(4) Amount of Solder Paste

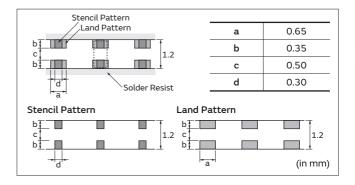
Excessive solder causes electrode corrosion, while insufficient solder causes low electrode bonding strength. Adjust the amount of solder paste as shown on the right so that the correct amount is applied. Guideline of solder paste thickness

- LQP (*Except for LQP02TN/LQP02TQ/HQ/ LQP03TQ/HQ),LQG,LQW15AN_00/ LQW15AN_10/LQW18AN/LQW21H/LQW2BA/ LQW2UA: 100 to 150µm
- LQP02TN: 50 to 80μm
- LQP02TQ/HQ: 50 to 65µm
- LQP03TQ/HQ: 100μm
- LQW03A/LQW04A: 80 to 100µm
- LQW15AN_80: 50 to 100μm
- LQW_H: 200 to 300μm

LQW15A Series:

Too much solder may cause slant or rotation of the chip at the time of solder melting. Please reduce the amount of solder by using a smaller solder area than the land pattern, as shown in the figure at right.





4. Cleaning

The following conditions should be observed when cleaning chip inductors (chip coils):

- (1) Cleaning Temperature: 60°C max. (40°C max. for alcohol cleaning agents)
- (2) Ultrasonic

Output: 20W/l max. Duration: 5 minutes max. Frequency: 28 to 40kHz

Care should be taken not to cause resonance of the PCB and mounted products.

(3) Cleaning agent

The following cleaning agents have been tested on individual components. Evaluation in complete assembly should be done prior to production.

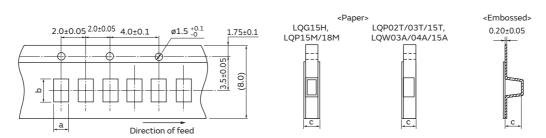
- (a) Alcohol cleaning agents Isopropyl alcohol (IPA)
- (b) Aqueous cleaning agents Pine Alpha ST-100S
- (4) Ensure that flux residue is completely removed.

 Component should be thoroughly dried after aqueous agents have been removed with deionized water.

For additional cleaning methods, please contact Murata.

RF Inductors Packaging

Minimum Quantity and 8mm Width Taping Dimensions



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• This catalog has only typical specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering.

Paper Tape

| Part Number | Dimens | sions | Total Thickness of Tape | Packaging Code (Minimum Qty. (pc: | | Qty. (pcs.)) |
|------------------|----------------|-----------|-------------------------|-----------------------------------|------------------|-----------------|
| | a | b | С | ø180mm reel | ø330mm reel | Bulk |
| LQG15H | 0.62 | 1.12 | 0.8 max. | D (10000) | J (50000) | B (1000) |
| LQP02TN | 0.24 | 0.47 | 0.39 max. | D (20000) | _ | B (500) |
| LQP02TQ | 0.23 | 0.45 | 0.39 max. | D (20000) | _ | B (500) |
| LQРОЗНQ | 0.36 | 0.68 | 0.55 max. | D (15000) | J (50000) | B (500) |
| LQP03TN/TG/TQ *1 | 0.35 | 0.65/0.67 | 0.55 max. | D (15000) | J (50000) | B (500) |
| LQP15M | 0.70 | 1.20 | 0.8 max. | D (10000) | J (50000) | B (500) |
| LQP18M | 1.19 | 2.0 | 0.8 max. | D (4000) | J (10000) | B (500) |
| LQW03A | 0.52 | 0.65 | 0.75 max. | D (10000) | _ | _ |
| LQW04A | 0.49 | 0.91 | 0.75 max. | D (10000) | _ | B (500) |
| LQW15A_00 *2 | 0.64/0.66/0.69 | 1.18 | 0.8 max. | D (10000) | _ | B (500) |
| LQW15A_10 *3 | 0.66/0.69 | 1.18 | 0.8 max. | D (10000) | _ | B (500) |
| LQW15A_80 | 0.75 | 1.18 | 0.8 max. | D (10000) | _ | B (500) |

^{*1 0.67 (}LQP03TG · LQP03TN_02; 0.6 to 62nH, 130 to 270nH · LQP03PN, LQP03TQ) 0.65 (LQP03TN_02; 68 to 120nH)

Embossed Tape

| Dank Muselinas | Dimensions | | Total Thickness of Tape | Packaging Code (Minimum Qty. (pcs.)) | | |
|----------------|------------|------|-------------------------|--------------------------------------|-------------|----------------|
| Part Number | a | b | С | ø180mm reel | ø330mm reel | Bulk |
| LQP02HQ | 0.24 | 0.46 | 0.34 max. | E (15000) | _ | B (500) |

(in mm)

Continued on the following page. 7

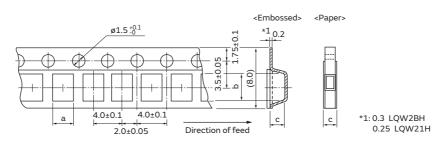
^{*2 0.69 (1.5}nH, 2.4 to 2.8nH, 3.9 to 4.8nH, 5.8 to 6.8nH, 8.2 to 9.9nH, 11nH, 12nH, 15nH)
0.66 (1.6 to 1.8nH, 2.9nH, 3.0nH, 3.1nH, 3.2nH, 4.9 to 5.1nH, 6.9 to 7.5nH, 10nH, 13nH, 16 to 23nH, 100nH, 120nH)
0.64 (24 to 91nH)

^{*3 0.69 (1.3}nH, 1.4nH) 0.66 (2.2 to 8.4nH)

RF Inductors Packaging

Continued from the preceding page.

Minimum Quantity and 8mm Width Taping Dimensions



The dimension of the cavity of embossed tape is measured at the bottom side.

Paper Tape

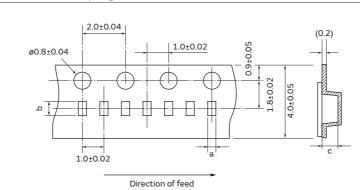
| Part Number | Dimensions | | Total Thickness of Tape | Packaging Code (Minimum Qty. (pcs.)) | | |
|-------------|------------|------|-------------------------|--------------------------------------|------------------|-----------------|
| | a | b | С | ø180mm reel | ø330mm reel | Bulk |
| LQG18H | 1.05 | 1.85 | 1.1 max. | D (4000) | J (10000) | B (1000) |
| LQW18AN_00 | 1.0 | 1.8 | 1.1 max. | D (4000) | J (10000) | B (500) |
| LQW18AN_10 | 1.1 | 1.9 | 1.1 max. | D (4000) | J (10000) | B (500) |
| LQW18AN_80 | 1.15 | 1.9 | 1.1 max. | D (4000) | J (10000) | B (500) |
| LQW18AS_00 | 1.06 | 1.86 | 1.1 max. | D (4000) | J (10000) | B (500) |

Embossed Tape

| Part Number | Dimensions | | Depth of Cavity | Packaging Code (Minimum Qty. (pcs. | | |
|----------------|------------|------|-----------------|------------------------------------|-----------------|----------------|
| | a | b | С | ø180mm reel | ø330mm reel | Bulk |
| LQP02HQ | 0.24 | 0.46 | 0.34 max. | L (30000) | _ | B (500) |
| LQH31H, LQW31H | 1.9 | 3.6 | 2.0 | L (2000) | K (7500) | _ |
| LQW21H | 1.55 | 2.3 | 1.1 | L (3000) | _ | B (500) |
| LQW2BH | 1.75 | 2.3 | 2.0 | L (2000) | K (7500) | _ |
| LQW2BA | 1.8 | 2.3 | 1.65 | L (2000) | _ | _ |
| LQW2UA | 2.7 | 2.8 | 2.15 | L (2000) | _ | _ |

(in mm)

Minimum Quantity and 4mm Width Taping Dimensions



Embossed Tape

| Part Number | Dimensions | | Total Thickness of Tape | Packaging Code (Minimum Qty. (pcs.)) | | |
|-------------|------------|------|-------------------------|--------------------------------------|-------------|----------------|
| | a | b | С | ø180mm reel | ø330mm reel | Bulk |
| LQP02HQ | 0.24 | 0.46 | 0.34 max. | L (30000) | _ | B (500) |
| LQP02TN | 0.21 | 0.43 | 0.23 max. | L (40000) | _ | B (500) |
| LQP02TQ | 0.22 | 0.47 | 0.23 max. | L (40000) | _ | B (500) |

(in mm)