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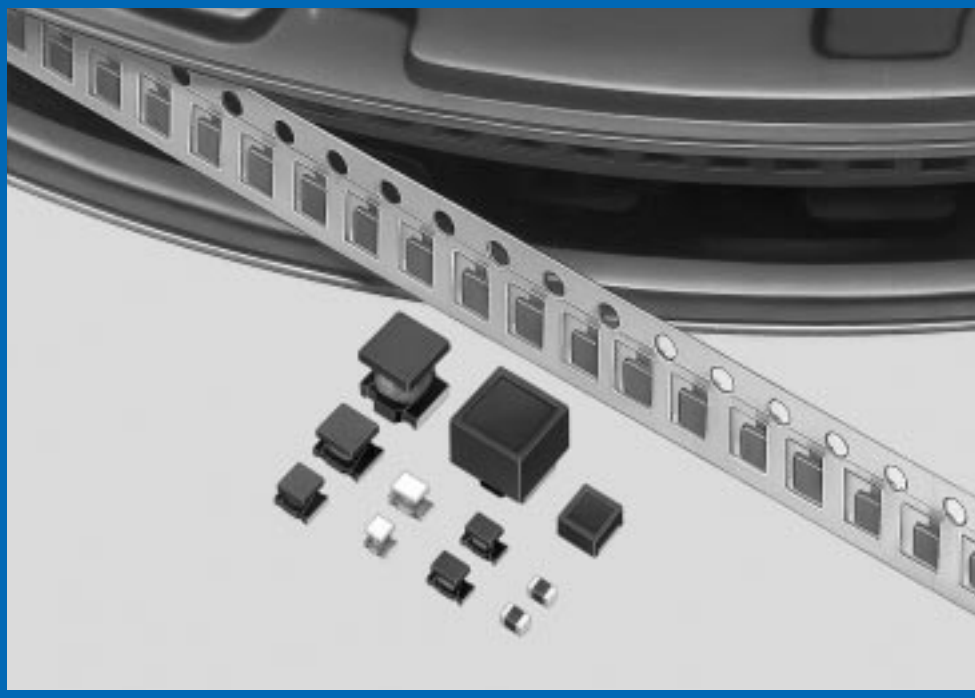
Chip Coils

CHIP COILS



GLOBAL PART NUMBERS
JUNE 2001

muRata Innovator in Electronics
Murata
Manufacturing Co., Ltd.

Cat.No.O05E-9

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The Bluetooth trademarks are owned by Bluetooth SIG, Inc., U. S. A.

● Part Numbering (The structure of the "Global Part Numbers" that have been adopted since June 2001 and the meaning of each code are described herein. If you have any questions about details, please inquire at your usual Murata sales office or distributor.)

Chip Coils (SMD)

(Global Part Number) **LQ H 32 M N 331 K 2 3 L**
❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾ ❿

❶Product ID

Product ID	
LQ	Chip Coils

❷Structure

Code	Structure
G	Monolithic Type (Air-core Coil)
H	Winding Type (Ferrite Core)
M	Monolithic (Ferrite Core)
P	Film Type
W	Winding Type (Air-core Coil)

❸Dimensions (L×W)

Code	Dimensions (L×W)	EIA
03	0.6×0.3mm	0201
15	1.0×0.5mm	0402
18	1.6×0.8mm	0603
21	2.0×1.25mm	0805
2B	2.0×1.5mm	0805
31	3.2×1.6mm	1206
32	3.2×2.5mm	1210
3K	3.3×3.3mm	1212
43	4.5×3.2mm	1812
55	5.7×5.0mm	2220
66	6.3×6.3mm	2525

❹Applications and Characteristics

Code	Series	Applications and Characteristics
H	**LQG**	Monolithic Air-core
N	**LQM**	for Resonant Circuit
D		for Choke (Low-current DC Power Supplies)
F		for Choke (DC Power Supplies)
M	**LQP**	Film Type
T		Film Type (Low DC Resistance Type)
A	**LQW**	High Q Type (UHF-SHF)
H		High Q Type (VHF-UHF)
N	**LQH**	for Resonant Circuit
M		for Resonant Circuit (Coating Type)
D		for Choke
C		for Choke (Coating Type)
S		for Choke (Magnetically Shielded Type)
H		for High-frequency Resonant Circuit

❺Category

Code	Category
N	Standard Type

❻Inductance

Expressed by three figures. The unit is micro-henry (μH). The first and second figures are significant digits, and the third figure expresses the number of zeros which 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 0.1μH, 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.

❼Inductance Tolerance

Code	Inductance Tolerance
B	±0.1nH
C	±0.2nH
D	±0.5nH
G	±2%
H	±3%
J	±5%
K	±10%
M	±20%
N	±30%
S	±0.3nH
W	±0.05nH

❽Features

Code	Features	Series
0	Standard Type	**LQG/LQP/LQW/LQM***1**/LQH***2
1	High-Q/ Low DC Resistance	**LQW18A/LQW2BH**
	Standard Type	**LQM21N**
	Low DC Resistance	**LQH32C**
2	Standard Type	**LQH32C/LQH32M/LQH3KS**
3	Low DC Resistance	**LQH32C**
5	Low Profile Type	**LQH32C/LQH3KS**

*1 : Except LQM21N series
*2 : Except LQH32/LQH3K series

❾Electrode

•Lead (Pb) Free

Code	Electrode	Series
0	Sn	**LQG18H/LQP03T/LQW□□A/LQM**
2		**LQG15H/LQP** (Except **LQP03T**)
3	LF Solder	**LQW□□H/LQH**

Continued on the following page.

Continued from the preceding page.

(Global Part Number) **LQ H 32 M N 331 K 2 3 L**
❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾ ❿

❿Packaging

Code	Packaging	Series
K	Plastic Taping (ø330mm Reel)	**LQH***1 **/LQW□□H/LQM31F/LQM21***2
L	Plastic Taping (ø180mm Reel)	**LQH/LQW□□H/LQM31F/LQM21***2
B	Bulk	All series
J	Paper Taping (ø330mm Reel)	**LQW18A/LQG/LQM18N/LQM21***3 **/LQP***4
D	Paper Taping (ø180mm Reel)	**LQW□□A/LQG/LQM18N/LQM21***3 **/LQP**

*1 Except LQH43C/LQH66S
*2 LQM21D(22 - 47μH)/LQM21F(4.7 - 47μH)/LQM21N(2.7 - 4.7μH) only.
*3 LQM21D(1.0 - 10μH)/LQM21F(1.0 - 2.2μH)/LQM21N(0.1 - 2.2μH) only.
*4 Except LQP15T

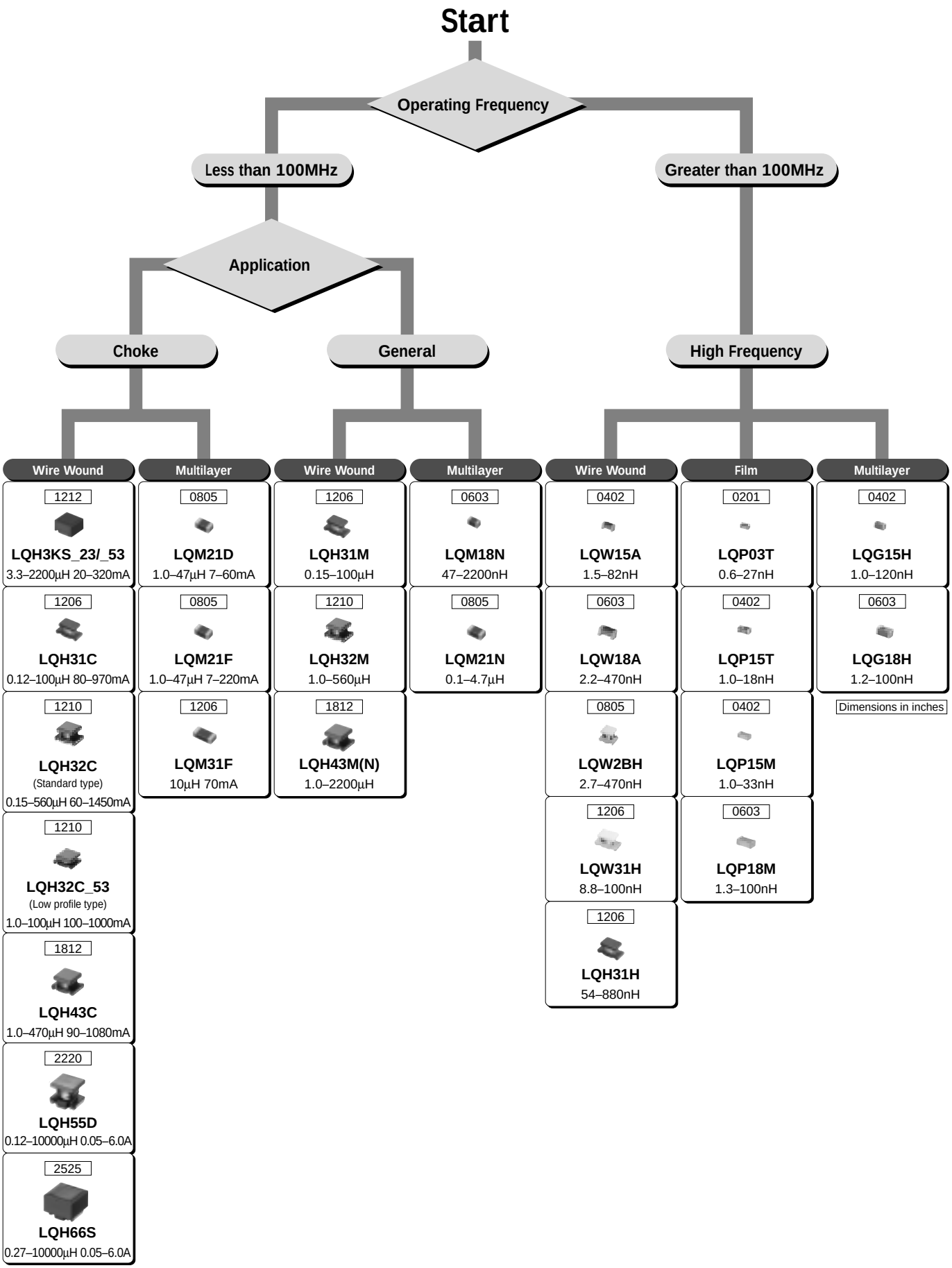
Products Guide

Murata's LQ□ series of chip coils consists of compact, high-performance inductors. Their innovative coil and case structures mean low DC resistance and outstanding high-frequency characteristics. The series is designed for a variety of applications, facilitating component selection for individual circuit requirements.

Application	Part Number	Structure	Dimensions (mm)	Dimensions EIA Code	Inductance Range (H)
High frequency range	**LQG15H**	Multilayer	1.0 × 0.5	0402	1.0nH – 120nH
High frequency range	**LQG18H**	Multilayer	1.6 × 0.8	0603	1.2nH – 100nH
High frequency range, Tight inductance tolerance	**LQP03T**	Film	0.6 × 0.3	0201	0.6nH – 27nH
High frequency range, Tight inductance tolerance	**LQP15T**	Film	1.0 × 0.5	0402	1.0nH – 18nH
High frequency range, Tight inductance tolerance	**LQP15M**	Film	1.0 × 0.5	0402	1.0nH – 33nH
High frequency range, Tight inductance tolerance	**LQP18M**	Film	1.6 × 0.8	0603	1.3nH – 100nH
High frequency range, Tight inductance tolerance	**LQW15A**	Winding (air core)	1.0 × 0.5	0402	1.5nH – 82nH
High frequency range, Tight inductance tolerance	**LQW18A**	Winding (air core)	1.6 × 0.8	0603	2.2nH – 470nH
High frequency range, Tight inductance tolerance	**LQW2BH**	Winding (air core)	2.0 × 1.5	0805	2.7nH – 470nH
High frequency range	**LQW31H**	Winding (air core)	3.2 × 1.6	1206	8.8nH – 100nH
High frequency range	**LQH31H**	Winding (ferrite core)	3.2 × 1.6	1206	54nH – 880nH
General frequency range	**LQH31M**	Winding (ferrite core)	3.2 × 1.6	1206	0.15µH – 100µH
General frequency range	**LQH32M**	Winding (ferrite core)	3.2 × 2.5	1210	1.0µH – 560µH
General frequency range	**LQH43M(N)**	Winding (ferrite core)	4.5 × 3.2	1812	1.0µH – 2200µH
General frequency range	**LQM18N**	Magnetically shielded multilayer	1.6 × 0.8	0603	47nH – 2200nH
General frequency range	**LQM21N**	Magnetically shielded multilayer	2.0 × 1.25	0805	0.1µH – 4.7µH
Chokes	**LQH31C**	Winding	3.2 × 1.6	1206	0.12µH – 100µH
Chokes	**LQH32C**	Winding	3.2 × 2.5	1210	0.15µH – 560µH
Chokes	**LQH43C**	Winding	4.5 × 3.2	1812	1.0µH – 470µH
Chokes	**LQM21D**	Magnetically shielded multilayer	2.0 × 1.25	0805	1.0µH – 47µH
Chokes	**LQM21F**	Magnetically shielded multilayer	2.0 × 1.25	0805	1.0µH – 47µH
Chokes	**LQM31F**	Magnetically shielded multilayer	3.2 × 1.6	1206	10µH
Chokes	**LQH55D**	Winding	5.7 × 5.0	2220	0.12µH – 10000µH
Chokes	**LQH3KS**	Magnetically shielded	3.3 × 3.3	1212	3.3µH – 2200µH
Chokes	**LQH66S**	Magnetically shielded	6.3 × 6.3	2525	0.27µH – 10000µH

CAUTION : Use rosin-based flux, but not strong acidic flux (with chlorine content exceeding 0.2wt%) when soldering chip coil.
Do not use water-soluble flux.

Selection Guide

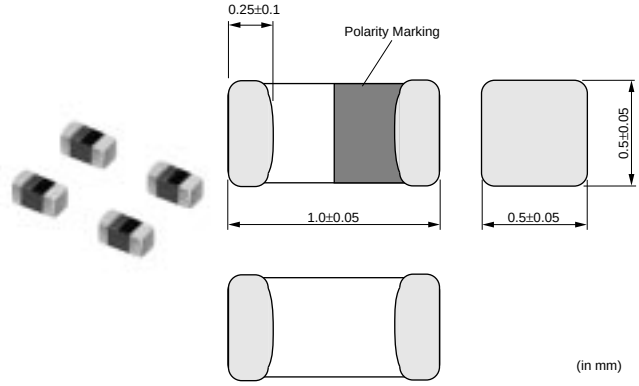


Chip Coils

High Frequency Monolithic Type LQG15H/LQG18H Series

LQG15H Series

The LQG15H series are chip inductors specifically designed for high frequency applications.
The LQG15H series is designed to realize stable characteristics in high frequency range applying integrated multilayer process. The integrated multilayer process enables a wide range of inductance values with tight tolerance.



■ Features

1. High-Q, stable inductance in high frequency is achieved by the original structure that minimizes stray capacitance. It is suitable for the high frequency circuits of mobile communication equipment.
2. The small size of LQG15H (1.0x0.5x0.5mm) is suitable for small and low profile mobile equipment.
3. The external electrodes with nickel barrier structure provide excellent solder heat resistance.

■ Applications

1. High frequency circuits of mobile phones such as PA, ANT, VCO, SAW, etc.
2. Mobile phones such as GSM, CDMA, PDC, etc.
3. "Bluetooth"
4. W-LAN
5. High frequency circuits in general

Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQG15HN1N0S02	1.0 ±0.3nH	100	300	0.10 max.	8	100	6000 min.	0402
LQG15HN1N1S02	1.1 ±0.3nH	100	300	0.10 max.	8	100	6000 min.	0402
LQG15HN1N2S02	1.2 ±0.3nH	100	300	0.10 max.	8	100	6000 min.	0402
LQG15HN1N3S02	1.3 ±0.3nH	100	300	0.10 max.	8	100	6000 min.	0402
LQG15HN1N5S02	1.5 ±0.3nH	100	300	0.10 max.	8	100	6000 min.	0402
LQG15HN1N6S02	1.6 ±0.3nH	100	300	0.10 max.	8	100	6000 min.	0402
LQG15HN1N8S02	1.8 ±0.3nH	100	300	0.10 max.	8	100	6000 min.	0402
LQG15HN2N0S02	2.0 ±0.3nH	100	300	0.12 max.	8	100	6000 min.	0402
LQG15HN2N2S02	2.2 ±0.3nH	100	300	0.15 max.	8	100	6000 min.	0402
LQG15HN2N4S02	2.4 ±0.3nH	100	300	0.16 max.	8	100	6000 min.	0402
LQG15HN2N7S02	2.7 ±0.3nH	100	300	0.17 max.	8	100	6000 min.	0402
LQG15HN3N0S02	3.0 ±0.3nH	100	300	0.18 max.	8	100	6000 min.	0402
LQG15HN3N3S02	3.3 ±0.3nH	100	300	0.19 max.	8	100	6000 min.	0402
LQG15HN3N6S02	3.6 ±0.3nH	100	300	0.19 max.	8	100	6000 min.	0402
LQG15HN3N9S02	3.9 ±0.3nH	100	300	0.19 max.	8	100	6000 min.	0402
LQG15HN4N3S02	4.3 ±0.3nH	100	300	0.21 max.	8	100	6000 min.	0402
LQG15HN4N7S02	4.7 ±0.3nH	100	300	0.23 max.	8	100	6000 min.	0402
LQG15HN5N1S02	5.1 ±0.3nH	100	300	0.24 max.	8	100	6000 min.	0402
LQG15HN5N6S02	5.6 ±0.3nH	100	300	0.26 max.	8	100	5300 min.	0402
LQG15HN6N2S02	6.2 ±0.3nH	100	300	0.27 max.	8	100	4300 min.	0402
LQG15HN6N8J02	6.8 ±5%	100	300	0.29 max.	8	100	4200 min.	0402

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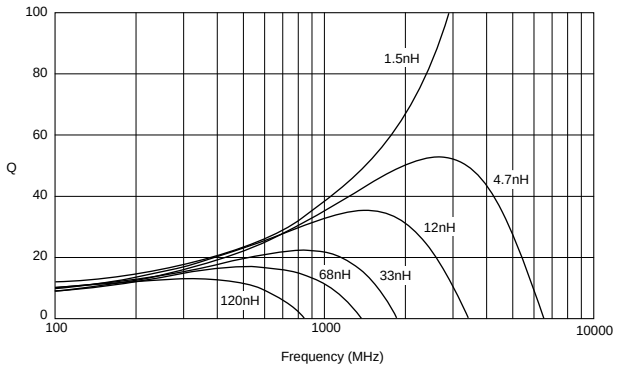
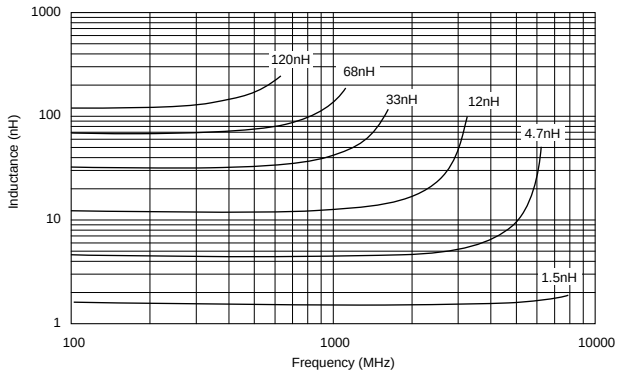
Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQG15HN7N5J02	7.5 ±5%	100	300	0.31 max.	8	100	3900 min.	0402
LQG15HN8N2J02	8.2 ±5%	100	300	0.33 max.	8	100	3600 min.	0402
LQG15HN9N1J02	9.1 ±5%	100	300	0.34 max.	8	100	3400 min.	0402
LQG15HN10NJ02	10 ±5%	100	300	0.35 max.	8	100	3200 min.	0402
LQG15HN12NJ02	12 ±5%	100	300	0.41 max.	8	100	2800 min.	0402
LQG15HN15NJ02	15 ±5%	100	300	0.46 max.	8	100	2300 min.	0402
LQG15HN18NJ02	18 ±5%	100	300	0.51 max.	8	100	2100 min.	0402
LQG15HN22NJ02	22 ±5%	100	300	0.58 max.	8	100	1800 min.	0402
LQG15HN27NJ02	27 ±5%	100	300	0.67 max.	8	100	1600 min.	0402
LQG15HN33NJ02	33 ±5%	100	300	0.67 max.	8	100	1500 min.	0402
LQG15HN39NJ02	39 ±5%	100	200	1.06 max.	8	100	1200 min.	0402
LQG15HN47NJ02	47 ±5%	100	200	1.15 max.	8	100	1000 min.	0402
LQG15HN56NJ02	56 ±5%	100	200	1.20 max.	8	100	800 min.	0402
LQG15HN68NJ02	68 ±5%	100	180	1.25 max.	8	100	800 min.	0402
LQG15HN82NJ02	82 ±5%	100	150	1.60 max.	8	100	600 min.	0402
LQG15HNR10J02	100 ±5%	100	150	1.60 max.	8	100	600 min.	0402
LQG15HNR12J02	120 ±5%	100	150	1.60 max.	8	100	600 min.	0402

Operating Temp. Range : -40°C to 85°C

■ Q-Frequency Characteristics

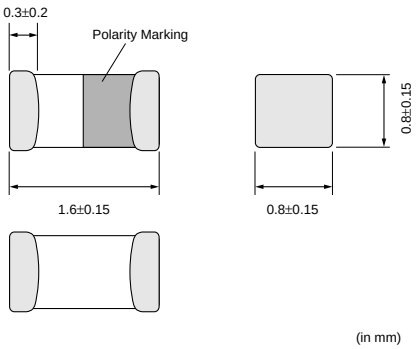


■ Inductance-Frequency Characteristics



LQG18H Series

The LQG18H series is designed to realize stable characteristics in high frequency range applying integrated multilayer process.



(in mm)

■ Features

1. High-Q, stable inductance in high frequency is available due to the original structure that minimizes stray capacitance. It is suitable for the high frequency circuits of small, handy equipment, especially for card size equipment.
2. Small size of LQG18H (1.6x0.8x0.8mm) is suitable for small, handy equipment, especially for card size equipment.
3. The external electrodes with nickel barrier structure provide excellent solder heat resistance.

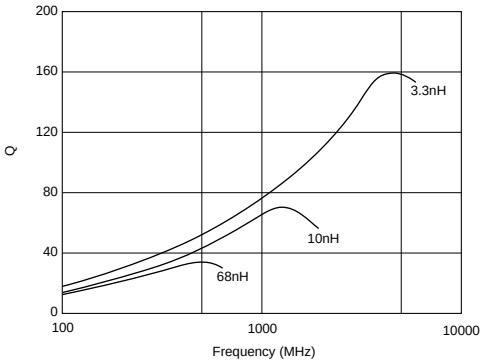
■ Applications

1. High frequency circuits of mobile phones such as PA, ANT, VCO, SAW, etc.
2. Mobile phones such as GSM, CDMA, PDC, etc.
3. "Bluetooth"
4. W-LAN
5. High frequency circuits in general

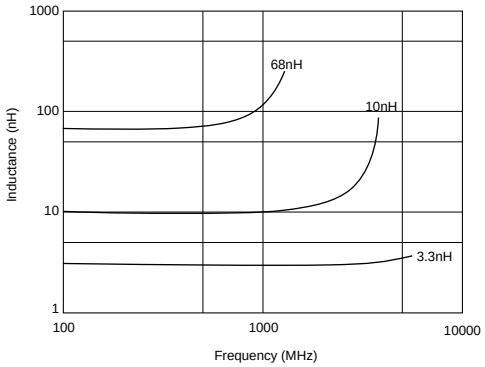
Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQG18HN1N2S00	1.2 ±0.3nH	100	300	0.10 max.	12	100	6000 min.	0603
LQG18HN1N5S00	1.5 ±0.3nH	100	300	0.10 max.	12	100	6000 min.	0603
LQG18HN1N8S00	1.8 ±0.3nH	100	300	0.10 max.	12	100	6000 min.	0603
LQG18HN2N2S00	2.2 ±0.3nH	100	300	0.10 max.	12	100	6000 min.	0603
LQG18HN2N7S00	2.7 ±0.3nH	100	300	0.15 max.	12	100	6000 min.	0603
LQG18HN3N3S00	3.3 ±0.3nH	100	300	0.15 max.	12	100	6000 min.	0603
LQG18HN3N9S00	3.9 ±0.3nH	100	300	0.15 max.	12	100	6000 min.	0603
LQG18HN4N7S00	4.7 ±0.3nH	100	300	0.20 max.	12	100	6000 min.	0603
LQG18HN5N6S00	5.6 ±0.3nH	100	300	0.20 max.	12	100	5000 min.	0603
LQG18HN6N8J00	6.8 ±5%	100	300	0.25 max.	12	100	5000 min.	0603
LQG18HN8N2J00	8.2 ±5%	100	300	0.25 max.	12	100	4000 min.	0603
LQG18HN10NJ00	10 ±5%	100	300	0.30 max.	12	100	3500 min.	0603
LQG18HN12NJ00	12 ±5%	100	300	0.35 max.	12	100	3000 min.	0603
LQG18HN15NJ00	15 ±5%	100	300	0.40 max.	12	100	2800 min.	0603
LQG18HN18NJ00	18 ±5%	100	300	0.45 max.	12	100	2600 min.	0603
LQG18HN22NJ00	22 ±5%	100	300	0.50 max.	12	100	2300 min.	0603
LQG18HN27NJ00	27 ±5%	100	300	0.55 max.	12	100	2000 min.	0603
LQG18HN33NJ00	33 ±5%	100	300	0.60 max.	12	100	1700 min.	0603
LQG18HN39NJ00	39 ±5%	100	300	0.65 max.	12	100	1500 min.	0603
LQG18HN47NJ00	47 ±5%	100	300	0.70 max.	12	100	1200 min.	0603
LQG18HN56NJ00	56 ±5%	100	300	0.75 max.	12	100	1100 min.	0603
LQG18HN68NJ00	68 ±5%	100	300	0.80 max.	12	100	1000 min.	0603
LQG18HN82NJ00	82 ±5%	100	300	0.85 max.	12	100	900 min.	0603
LQG18HNR10J00	100 ±5%	100	300	0.90 max.	12	100	800 min.	0603

Operating Temp. Range : -40°C to +85°C

■ Q-Frequency Characteristics



■ Inductance-Frequency Characteristics



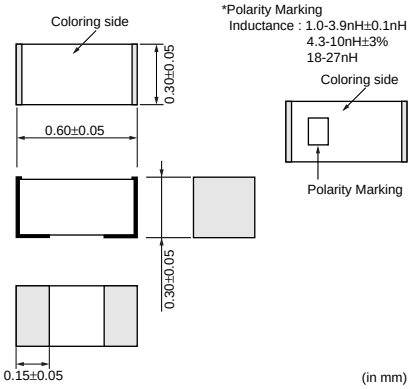
Chip Coils

High Frequency Film Type LQP03T/LQP15T/LQP15M/LQP18M Series

2

LQP03T Series

LQP03T series using Murata's original thin film technology contributes further to miniaturizing high performance equipment because the size is small and the Q-value is high.



■ Features

1. Ultra small and thin size 0.6x0.3x0.3mm
2. High Q value in high frequency range
3. E24 step
   0.6 to 3.9nH +-0.1nH
   4.3 to 10nH +-3%
4. E12 step
   0.6 to 3.9nH +-0.2nH
   4.7 to 15nH +-5%
   18 to 27nH +-3%, +-5%
5. Lead is not contained in the products.

■ Applications

1. High frequency circuits of mobile phones such as PA, ANT, VCO, SAW, etc.
2. Mobile phones such as GSM, CDMA, PDC, etc.
3. "Bluetooth"
4. W-LAN
5. High frequency circuits in general

Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQP03TN0N6B00	0.6 ±0.1nH	500	420	0.08 max.	11	500	6000 min.	0201
LQP03TN0N6C00	0.6 ±0.2nH	500	420	0.08 max.	11	500	6000 min.	0201
LQP03TN0N7B00	0.7 ±0.1nH	500	410	0.09 max.	11	500	6000 min.	0201
LQP03TN0N8B00	0.8 ±0.1nH	500	410	0.09 max.	11	500	6000 min.	0201
LQP03TN0N8C00	0.8 ±0.2nH	500	410	0.09 max.	11	500	6000 min.	0201
LQP03TN0N9B00	0.9 ±0.1nH	500	400	0.10 max.	11	500	6000 min.	0201
LQP03TN1N0B00	1.0 ±0.1nH	500	400	0.10 max.	11	500	6000 min.	0201
LQP03TN1N0C00	1.0 ±0.2nH	500	400	0.10 max.	11	500	6000 min.	0201
LQP03TN1N1B00	1.1 ±0.1nH	500	280	0.13 max.	11	500	6000 min.	0201
LQP03TN1N2B00	1.2 ±0.1nH	500	280	0.13 max.	11	500	6000 min.	0201
LQP03TN1N2C00	1.2 ±0.2nH	500	280	0.13 max.	11	500	6000 min.	0201
LQP03TN1N3B00	1.3 ±0.1nH	500	280	0.16 max.	11	500	6000 min.	0201
LQP03TN1N5B00	1.5 ±0.1nH	500	280	0.16 max.	11	500	6000 min.	0201
LQP03TN1N5C00	1.5 ±0.2nH	500	280	0.16 max.	11	500	6000 min.	0201
LQP03TN1N6B00	1.6 ±0.1nH	500	280	0.16 max.	11	500	6000 min.	0201
LQP03TN1N8B00	1.8 ±0.1nH	500	280	0.16 max.	11	500	6000 min.	0201
LQP03TN1N8C00	1.8 ±0.2nH	500	280	0.16 max.	11	500	6000 min.	0201
LQP03TN2N0B00	2.0 ±0.1nH	500	220	0.18 max.	11	500	6000 min.	0201
LQP03TN2N2B00	2.2 ±0.1nH	500	220	0.18 max.	11	500	6000 min.	0201
LQP03TN2N2C00	2.2 ±0.2nH	500	220	0.18 max.	11	500	6000 min.	0201
LQP03TN2N4B00	2.4 ±0.1nH	500	220	0.21 max.	11	500	6000 min.	0201
LQP03TN2N7B00	2.7 ±0.1nH	500	220	0.21 max.	11	500	6000 min.	0201
LQP03TN2N7C00	2.7 ±0.2nH	500	220	0.21 max.	11	500	6000 min.	0201

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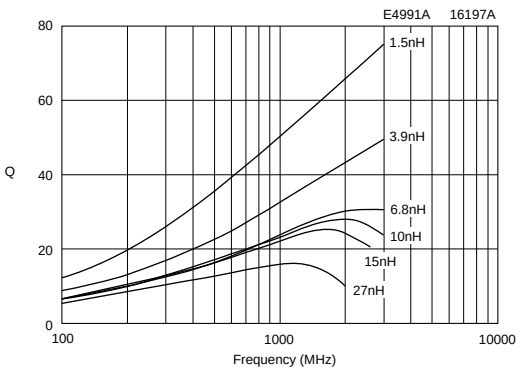
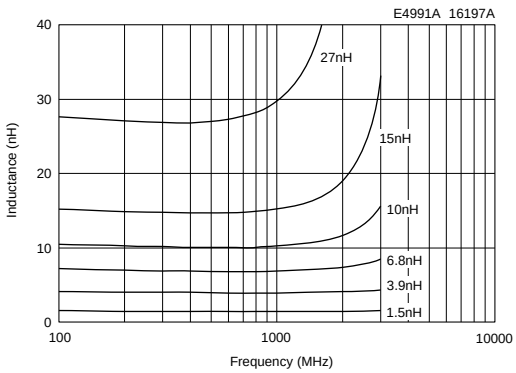
Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQP03TN3N0B00	3.0 ±0.1nH	500	190	0.30 max.	11	500	6000 min.	0201
LQP03TN3N3B00	3.3 ±0.1nH	500	190	0.30 max.	11	500	6000 min.	0201
LQP03TN3N3C00	3.3 ±0.2nH	500	190	0.30 max.	11	500	6000 min.	0201
LQP03TN3N6B00	3.6 ±0.1nH	500	170	0.45 max.	11	500	6000 min.	0201
LQP03TN3N9B00	3.9 ±0.1nH	500	170	0.45 max.	11	500	6000 min.	0201
LQP03TN3N9C00	3.9 ±0.2nH	500	170	0.45 max.	11	500	6000 min.	0201
LQP03TN4N3H00	4.3 ±3%	500	160	0.55 max.	11	500	6000 min.	0201
LQP03TN4N7H00	4.7 ±3%	500	160	0.55 max.	11	500	6000 min.	0201
LQP03TN4N7J00	4.7 ±5%	500	160	0.55 max.	11	500	6000 min.	0201
LQP03TN5N1H00	5.1 ±3%	500	140	0.68 max.	11	500	6000 min.	0201
LQP03TN5N6H00	5.6 ±3%	500	140	0.68 max.	11	500	6000 min.	0201
LQP03TN5N6J00	5.6 ±5%	500	140	0.68 max.	11	500	6000 min.	0201
LQP03TN6N2H00	6.2 ±3%	500	130	0.75 max.	11	500	6000 min.	0201
LQP03TN6N8H00	6.8 ±3%	500	130	0.75 max.	11	500	6000 min.	0201
LQP03TN6N8J00	6.8 ±5%	500	130	0.75 max.	11	500	6000 min.	0201
LQP03TN7N5H00	7.5 ±3%	500	110	0.86 max.	11	500	5500 min.	0201
LQP03TN8N2H00	8.2 ±3%	500	110	0.86 max.	11	500	5500 min.	0201
LQP03TN8N2J00	8.2 ±5%	500	110	0.86 max.	11	500	5500 min.	0201
LQP03TN9N1H00	9.1 ±3%	500	100	1.10 max.	11	500	4500 min.	0201
LQP03TN10NH00	10 ±3%	500	100	1.10 max.	11	500	4500 min.	0201
LQP03TN10NJ00	10 ±5%	500	100	1.10 max.	11	500	4500 min.	0201
LQP03TN12NJ00	12 ±5%	500	90	1.25 max.	11	500	3700 min.	0201
LQP03TN15NJ00	15 ±5%	500	90	1.50 max.	11	500	3300 min.	0201
LQP03TN18NH00	18 ±3%	500	80	2.0 max.	11	500	3100 min.	0201
LQP03TN18NJ00	18 ±5%	500	80	2.0 max.	11	500	3100 min.	0201
LQP03TN22NH00	22 ±3%	500	70	2.6 max.	11	500	2800 min.	0201
LQP03TN22NJ00	22 ±5%	500	70	2.6 max.	11	500	2800 min.	0201
LQP03TN27NH00	27 ±3%	500	70	3.1 max.	11	500	2500 min.	0201
LQP03TN27NJ00	27 ±5%	500	70	3.1 max.	11	500	2500 min.	0201

Operating Temp. Range : -40°C to +85°C

■ Q-Frequency Characteristics



■ Inductance-Frequency Characteristics



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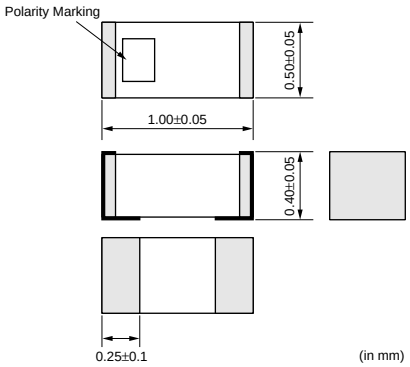
■ Reference Data

E4991A & 16197A

Part Number	Inductance (nH) (Typ.)					Q (Typ.)				
	800MHz	900MHz	1.8GHz	2.0GHz	2.4GHz	800MHz	900MHz	1.8GHz	2.0GHz	2.4GHz
LQP03TN0N6B00	0.6	0.6	0.6	0.6	0.6	50 min.	54 min.	70 min.	73 min.	77 min.
LQP03TN0N6C00	0.6	0.6	0.6	0.6	0.6	50 min.	54 min.	70 min.	73 min.	77 min.
LQP03TN0N7B00	0.7	0.7	0.7	0.7	0.7	50 min.	54 min.	70 min.	73 min.	77 min.
LQP03TN0N8B00	0.8	0.8	0.8	0.8	0.8	50 min.	54 min.	70 min.	73 min.	77 min.
LQP03TN0N8C00	0.8	0.8	0.8	0.8	0.8	50 min.	54 min.	70 min.	73 min.	77 min.
LQP03TN0N9B00	0.9	0.9	0.9	0.9	0.9	50 min.	54 min.	70 min.	73 min.	77 min.
LQP03TN1N0B00	1.0	1.0	1.0	1.0	1.0	50 min.	54 min.	70 min.	73 min.	77 min.
LQP03TN1N0C00	1.0	1.0	1.0	1.0	1.0	50 min.	54 min.	70 min.	73 min.	77 min.
LQP03TN1N1B00	1.1	1.1	1.1	1.1	1.1	50 min.	54 min.	70 min.	73 min.	77 min.
LQP03TN1N2B00	1.2	1.2	1.2	1.2	1.2	50	54	70	73	77
LQP03TN1N2C00	1.2	1.2	1.2	1.2	1.2	50	54	70	73	77
LQP03TN1N3B00	1.3	1.3	1.3	1.3	1.3	48	52	67	72	74
LQP03TN1N5B00	1.5	1.5	1.5	1.5	1.5	45	48	63	66	69
LQP03TN1N5C00	1.5	1.5	1.5	1.5	1.5	45	48	63	66	69
LQP03TN1N6B00	1.6	1.6	1.6	1.6	1.6	43	47	57	64	67
LQP03TN1N8B00	1.8	1.8	1.8	1.8	1.8	36	38	50	53	55
LQP03TN1N8C00	1.8	1.8	1.8	1.8	1.8	36	38	50	53	55
LQP03TN2N0B00	2.0	2.0	2.0	2.0	2.0	38	40	52	54	57
LQP03TN2N2B00	2.2	2.2	2.2	2.2	2.2	28	35	49	52	54
LQP03TN2N2C00	2.2	2.2	2.2	2.2	2.2	28	35	49	52	54
LQP03TN2N4B00	2.4	2.4	2.4	2.4	2.4	36	38	50	53	56
LQP03TN2N7B00	2.7	2.7	2.7	2.7	2.7	28	30	40	42	44
LQP03TN2N7C00	2.7	2.7	2.7	2.7	2.7	28	30	40	42	44
LQP03TN3N0B00	3.0	3.0	3.0	3.0	3.0	28	29	39	41	43
LQP03TN3N3B00	3.3	3.3	3.3	3.3	3.4	29	31	42	43	45
LQP03TN3N3C00	3.3	3.3	3.3	3.3	3.4	29	31	42	43	45
LQP03TN3N6B00	3.6	3.6	3.6	3.7	3.7	31	33	43	45	47
LQP03TN3N9B00	3.9	3.9	3.9	4.0	4.1	29	31	41	43	45
LQP03TN3N9C00	3.9	3.9	3.9	4.0	4.1	29	31	41	43	45
LQP03TN4N3H00	4.3	4.3	4.3	4.4	4.5	28	30	40	42	44
LQP03TN4N7H00	4.7	4.7	4.8	4.9	5.1	28	30	40	42	43
LQP03TN4N7J00	4.7	4.7	4.8	4.9	5.1	28	30	40	42	43
LQP03TN5N1H00	5.1	5.1	5.2	5.3	5.5	26	28	37	39	40
LQP03TN5N6H00	5.6	5.6	5.8	5.9	6.1	22	24	32	33	33
LQP03TN5N6J00	5.6	5.6	5.8	5.9	6.1	22	24	32	33	33
LQP03TN6N2H00	6.2	6.2	6.5	6.6	6.9	20	21	27	28	28
LQP03TN6N8H00	6.8	6.8	7.1	7.4	7.7	21	22	29	30	30
LQP03TN6N8J00	6.2	6.2	6.5	6.6	6.9	20	21	27	28	28
LQP03TN7N5H00	7.5	7.5	7.9	8.2	8.7	21	22	28	30	29
LQP03TN8N2H00	8.2	8.2	8.6	9.1	9.6	18	19	25	25	24
LQP03TN8N2J00	8.2	8.2	8.6	9.1	9.6	18	19	25	25	24
LQP03TN9N1H00	9.1	9.1	9.9	10	11	20	21	26	26	25
LQP03TN10NH00	10	10	11	12	13	21	22	28	28	27
LQP03TN10NJ00	10	10	11	12	13	21	22	28	28	27
LQP03TN12NJ00	12	12	13	14	16	21	22	27	27	25
LQP03TN15NJ00	15	15	18	19	23	21	21	25	24	22
LQP03TN18NH00	18	18	24	-	-	18	19	20	-	-
LQP03TN18NJ00	18	18	24	-	-	18	19	20	-	-
LQP03TN22NH00	22	23	32	-	-	16	17	16	-	-
LQP03TN22NJ00	22	23	32	-	-	16	17	16	-	-
LQP03TN27NH00	28	29	47	-	-	15	15	13	-	-
LQP03TN27NJ00	28	29	47	-	-	15	15	13	-	-

LQP15T Series

The LQP15T series offers High Q value, tight inductance tolerance with small/thin package using Murata's original film engineering technology.



■ Features

1. High Q value
2. Tight inductance tolerance (+-0.1nH, +-0.2nH, +-3%)
3. Ultra small and tight size (1005size, Height 0.4mm)
4. Low DC resistance
5. Lead is not contained in the products.

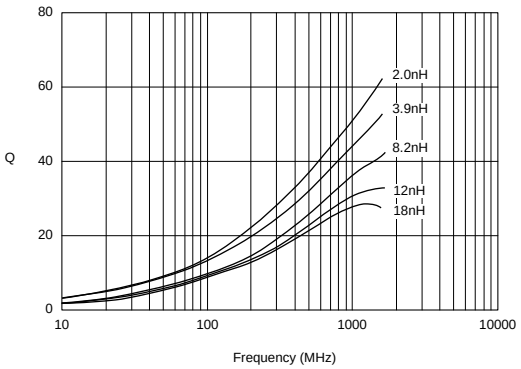
■ Applications

1. High frequency circuits of mobile phones such as PA, ANT, VCO, SAW, etc.
2. Mobile phones such as GSM, CDMA, PDC, etc.
3. "Bluetooth"
4. W-LAN
5. High frequency circuits in general

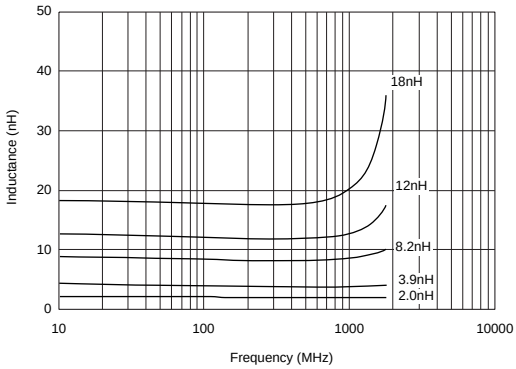
Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQP15TN1N0B02	1.0 ±0.1nH	500	300	0.1 max.	17	500	6000 min.	0402
LQP15TN1N0C02	1.0 ±0.2nH	500	300	0.1 max.	17	500	6000 min.	0402
LQP15TN1N1B02	1.1 ±0.1nH	500	300	0.1 max.	17	500	6000 min.	0402
LQP15TN1N1C02	1.1 ±0.2nH	500	300	0.1 max.	17	500	6000 min.	0402
LQP15TN1N2B02	1.2 ±0.1nH	500	300	0.1 max.	17	500	6000 min.	0402
LQP15TN1N2C02	1.2 ±0.2nH	500	300	0.1 max.	17	500	6000 min.	0402
LQP15TN1N3B02	1.3 ±0.1nH	500	300	0.15 max.	17	500	6000 min.	0402
LQP15TN1N3C02	1.3 ±0.2nH	500	300	0.15 max.	17	500	6000 min.	0402
LQP15TN1N5B02	1.5 ±0.1nH	500	300	0.15 max.	17	500	6000 min.	0402
LQP15TN1N5C02	1.5 ±0.2nH	500	300	0.15 max.	17	500	6000 min.	0402
LQP15TN1N6B02	1.6 ±0.1nH	500	250	0.15 max.	17	500	6000 min.	0402
LQP15TN1N6C02	1.6 ±0.2nH	500	250	0.15 max.	17	500	6000 min.	0402
LQP15TN1N8B02	1.8 ±0.1nH	500	250	0.15 max.	17	500	6000 min.	0402
LQP15TN1N8C02	1.8 ±0.2nH	500	250	0.15 max.	17	500	6000 min.	0402
LQP15TN2N0C02	2.0 ±0.2nH	500	220	0.2 max.	17	500	6000 min.	0402
LQP15TN2N2C02	2.2 ±0.2nH	500	220	0.2 max.	17	500	6000 min.	0402
LQP15TN2N4C02	2.4 ±0.2nH	500	220	0.2 max.	17	500	6000 min.	0402
LQP15TN2N7C02	2.7 ±0.2nH	500	220	0.2 max.	17	500	6000 min.	0402
LQP15TN3N0C02	3.0 ±0.2nH	500	190	0.3 max.	17	500	5500 min.	0402
LQP15TN3N3C02	3.3 ±0.2nH	500	190	0.3 max.	17	500	5500 min.	0402
LQP15TN3N6C02	3.6 ±0.2nH	500	170	0.4 max.	17	500	5500 min.	0402
LQP15TN3N9C02	3.9 ±0.2nH	500	170	0.4 max.	17	500	5500 min.	0402
LQP15TN4N7C02	4.7 ±0.2nH	500	160	0.5 max.	17	500	5000 min.	0402
LQP15TN5N6C02	5.6 ±0.2nH	500	140	0.6 max.	17	500	4500 min.	0402
LQP15TN6N8H02	6.8 ±3%	500	130	0.7 max.	17	500	3500 min.	0402
LQP15TN8N2H02	8.2 ±3%	500	110	0.8 max.	17	500	3000 min.	0402
LQP15TN10NH02	10 ±3%	500	100	1.0 max.	17	500	2500 min.	0402
LQP15TN12NH02	12 ±3%	500	90	1.0 max.	17	500	2500 min.	0402
LQP15TN15NH02	15 ±3%	500	90	1.3 max.	17	500	2000 min.	0402
LQP15TN18NH02	18 ±3%	500	80	1.5 max.	17	500	1500 min.	0402

Operating Temp. Range : -40°C to +85°C

■ Q-Frequency Characteristics



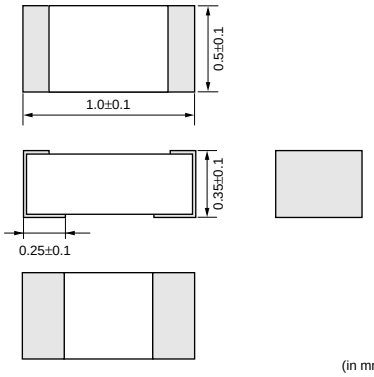
■ Inductance-Frequency Characteristics



LQP15M Series

■ Features

1. Tight inductance tolerance (+-0.05nH, +-0.1nH, +-2%) realized by Murata's original film technology. Various inductance values enable assembly with no tuning.
2. Ultra small 1005size inductor which is low profile and lightest weight in the world enables miniaturizing of mobile telecommunication equipment. LQP15M series weights 0.6mg/pcs. while multilayer type inductor 0.9mg/pcs.
3. High Q at high frequency range.
4. High self resonant frequency due to low stray capacitance and narrow inductance distribution provides stable inductance in high frequency circuits such as telecommunication equipment.



(in mm)

■ Applications

1. High frequency circuits of mobile phones such as PA, ANT, VCO, SAW, etc.
2. Mobile phones such as GSM, CDMA, PDC, etc.
3. "Bluetooth"
4. W-LAN
5. High frequency circuits in general

Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQP15MN1N0B02	1.0 ±0.1nH	500	400	0.1 max.	13	500	6000 min.	0402
LQP15MN1N0W02	1.0 ±0.05nH	500	400	0.1 max.	13	500	6000 min.	0402
LQP15MN1N1B02	1.1 ±0.1nH	500	390	0.1 max.	13	500	6000 min.	0402
LQP15MN1N1W02	1.1 ±0.05nH	500	390	0.1 max.	13	500	6000 min.	0402
LQP15MN1N2B02	1.2 ±0.1nH	500	390	0.1 max.	13	500	6000 min.	0402
LQP15MN1N2W02	1.2 ±0.05nH	500	390	0.1 max.	13	500	6000 min.	0402
LQP15MN1N3B02	1.3 ±0.1nH	500	280	0.2 max.	13	500	6000 min.	0402
LQP15MN1N3W02	1.3 ±0.05nH	500	280	0.2 max.	13	500	6000 min.	0402
LQP15MN1N4W02	1.4 ±0.05nH	500	280	0.2 max.	13	500	6000 min.	0402
LQP15MN1N5B02	1.5 ±0.1nH	500	280	0.2 max.	13	500	6000 min.	0402
LQP15MN1N5W02	1.5 ±0.05nH	500	280	0.2 max.	13	500	6000 min.	0402
LQP15MN1N6B02	1.6 ±0.1nH	500	220	0.3 max.	13	500	6000 min.	0402
LQP15MN1N6W02	1.6 ±0.05nH	500	220	0.3 max.	13	500	6000 min.	0402
LQP15MN1N7W02	1.7 ±0.05nH	500	280	0.2 max.	13	500	6000 min.	0402
LQP15MN1N8B02	1.8 ±0.1nH	500	280	0.2 max.	13	500	6000 min.	0402
LQP15MN1N8W02	1.8 ±0.05nH	500	280	0.2 max.	13	500	6000 min.	0402
LQP15MN1N9W02	1.9 ±0.05nH	500	220	0.3 max.	13	500	6000 min.	0402
LQP15MN2N0B02	2.0 ±0.1nH	500	220	0.3 max.	13	500	6000 min.	0402
LQP15MN2N0W02	2.0 ±0.05nH	500	220	0.3 max.	13	500	6000 min.	0402
LQP15MN2N1W02	2.1 ±0.05nH	500	220	0.3 max.	13	500	6000 min.	0402
LQP15MN2N2B02	2.2 ±0.1nH	500	220	0.3 max.	13	500	6000 min.	0402
LQP15MN2N2W02	2.2 ±0.05nH	500	220	0.3 max.	13	500	6000 min.	0402
LQP15MN2N3W02	2.3 ±0.05nH	500	220	0.3 max.	13	500	6000 min.	0402
LQP15MN2N4B02	2.4 ±0.1nH	500	220	0.3 max.	13	500	6000 min.	0402
LQP15MN2N4W02	2.4 ±0.05nH	500	220	0.3 max.	13	500	6000 min.	0402
LQP15MN2N5W02	2.5 ±0.05nH	500	220	0.3 max.	13	500	6000 min.	0402
LQP15MN2N6W02	2.6 ±0.05nH	500	220	0.3 max.	13	500	6000 min.	0402
LQP15MN2N7B02	2.7 ±0.1nH	500	220	0.3 max.	13	500	6000 min.	0402
LQP15MN2N7W02	2.7 ±0.05nH	500	220	0.3 max.	13	500	6000 min.	0402
LQP15MN2N8W02	2.8 ±0.05nH	500	190	0.4 max.	13	500	6000 min.	0402

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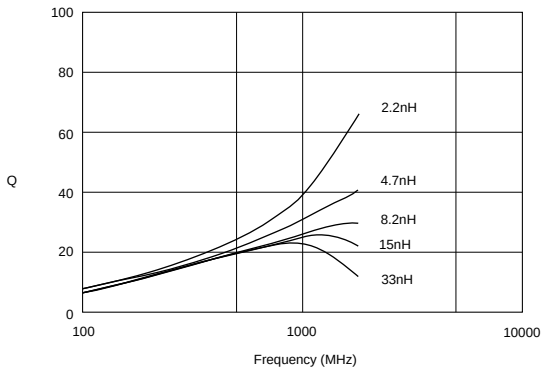
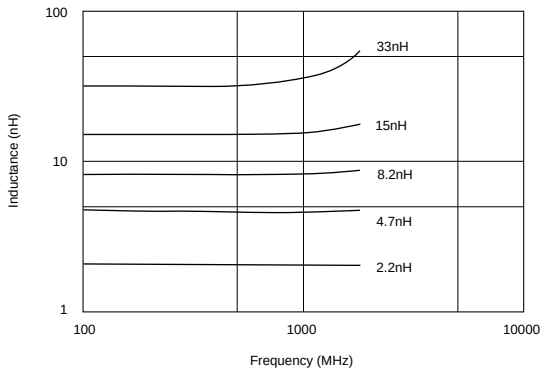
Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQP15MN2N9W02	2.9 ±0.05nH	500	190	0.4 max.	13	500	6000 min.	0402
LQP15MN3N0B02	3.0 ±0.1nH	500	190	0.4 max.	13	500	6000 min.	0402
LQP15MN3N0W02	3.0 ±0.05nH	500	190	0.4 max.	13	500	6000 min.	0402
LQP15MN3N1W02	3.1 ±0.05nH	500	190	0.4 max.	13	500	6000 min.	0402
LQP15MN3N2W02	3.2 ±0.05nH	500	190	0.4 max.	13	500	6000 min.	0402
LQP15MN3N3B02	3.3 ±0.1nH	500	190	0.4 max.	13	500	6000 min.	0402
LQP15MN3N3W02	3.3 ±0.05nH	500	190	0.4 max.	13	500	6000 min.	0402
LQP15MN3N4W02	3.4 ±0.05nH	500	170	0.5 max.	13	500	6000 min.	0402
LQP15MN3N5W02	3.5 ±0.05nH	500	170	0.5 max.	13	500	6000 min.	0402
LQP15MN3N6B02	3.6 ±0.1nH	500	170	0.5 max.	13	500	6000 min.	0402
LQP15MN3N6W02	3.6 ±0.05nH	500	170	0.5 max.	13	500	6000 min.	0402
LQP15MN3N7W02	3.7 ±0.05nH	500	170	0.5 max.	13	500	6000 min.	0402
LQP15MN3N8W02	3.8 ±0.05nH	500	170	0.5 max.	13	500	6000 min.	0402
LQP15MN3N9B02	3.9 ±0.1nH	500	170	0.5 max.	13	500	6000 min.	0402
LQP15MN3N9W02	3.9 ±0.05nH	500	170	0.5 max.	13	500	6000 min.	0402
LQP15MN4N3B02	4.3 ±0.1nH	500	160	0.6 max.	13	500	6000 min.	0402
LQP15MN4N7B02	4.7 ±0.1nH	500	160	0.6 max.	13	500	6000 min.	0402
LQP15MN5N1B02	5.1 ±0.1nH	500	140	0.7 max.	13	500	6000 min.	0402
LQP15MN5N6B02	5.6 ±0.1nH	500	140	0.7 max.	13	500	6000 min.	0402
LQP15MN6N2B02	6.2 ±0.1nH	500	130	0.9 max.	13	500	6000 min.	0402
LQP15MN6N8B02	6.8 ±0.1nH	500	130	0.9 max.	13	500	6000 min.	0402
LQP15MN7N5B02	7.5 ±0.1nH	500	110	1.1 max.	13	500	5500 min.	0402
LQP15MN8N2B02	8.2 ±0.1nH	500	110	1.1 max.	13	500	5500 min.	0402
LQP15MN9N1B02	9.1 ±0.1nH	500	100	1.3 max.	13	500	4500 min.	0402
LQP15MN10NG02	10 ±2%	500	100	1.3 max.	13	500	4500 min.	0402
LQP15MN12NG02	12 ±2%	500	90	1.6 max.	13	500	3700 min.	0402
LQP15MN15NG02	15 ±2%	500	90	1.8 max.	13	500	3300 min.	0402
LQP15MN18NG02	18 ±2%	500	80	2.0 max.	13	500	3100 min.	0402
LQP15MN22NG02	22 ±2%	500	70	2.6 max.	13	500	2800 min.	0402
LQP15MN27NG02	27 ±2%	500	70	3.1 max.	13	500	2500 min.	0402
LQP15MN33NG02	33 ±2%	500	60	3.8 max.	13	500	2100 min.	0402

Operating Temp. Range : -40°C to +85°C

■ Q-Frequency Characteristics



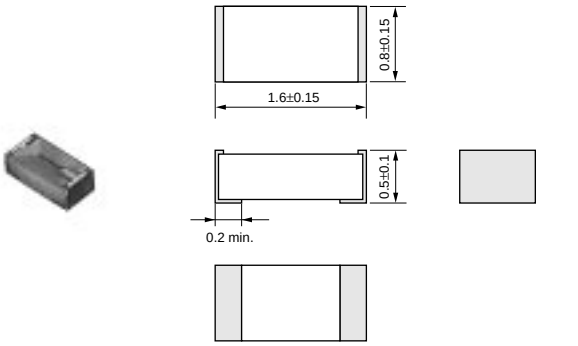
■ Inductance-Frequency Characteristics



LQP18M Series

■ Features

1. Tight inductance tolerance (+-0.2nH, +-2%) realized by Murata's original film technology. Various inductance values enable assembly with no tuning.
2. Small size of LQP18M series is suitable for small hand held equipment, especially for card size equipment.
3. High Q at high frequency range.
4. High self resonant frequency due to low stray capacitance and narrow inductance distribution provides stable inductance in high frequency circuits such as telecommunication equipment.
5. LQP18M_02: Does not contain lead.



(in mm)

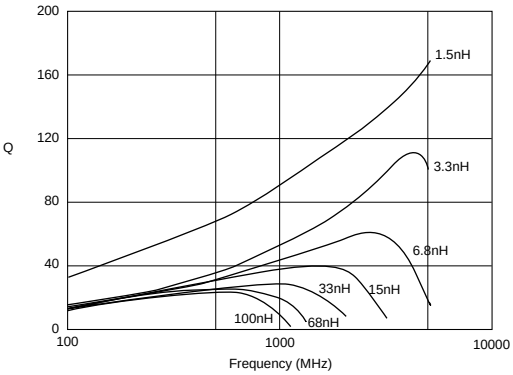
■ Applications

1. High frequency circuits of mobile phones such as PA, ANT, VCO, SAW, etc.
2. Mobile phones such as GSM, CDMA, PDC, etc.
3. "Bluetooth"
4. W-LAN
5. High frequency circuits in general

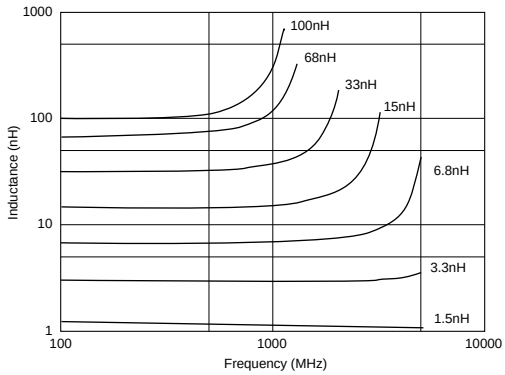
Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQP18MN1N3C02	1.3 ±0.2nH	500	300	0.3 max.	17	500	6000 min.	0603
LQP18MN1N5C02	1.5 ±0.2nH	500	300	0.3 max.	17	500	6000 min.	0603
LQP18MN1N8C02	1.8 ±0.2nH	500	250	0.4 max.	17	500	6000 min.	0603
LQP18MN2N2C02	2.2 ±0.2nH	500	250	0.4 max.	17	500	6000 min.	0603
LQP18MN2N7C02	2.7 ±0.2nH	500	250	0.4 max.	17	500	6000 min.	0603
LQP18MN3N3C02	3.3 ±0.2nH	500	250	0.4 max.	17	500	6000 min.	0603
LQP18MN3N9C02	3.9 ±0.2nH	500	200	0.5 max.	17	500	5900 min.	0603
LQP18MN4N7C02	4.7 ±0.2nH	500	200	0.5 max.	17	500	5200 min.	0603
LQP18MN5N6C02	5.6 ±0.2nH	500	200	0.6 max.	17	500	4700 min.	0603
LQP18MN6N8C02	6.8 ±0.2nH	500	200	0.7 max.	17	500	4300 min.	0603
LQP18MN8N2C02	8.2 ±0.2nH	500	150	0.8 max.	17	500	3600 min.	0603
LQP18MN10NG02	10 ±2%	500	150	1.0 max.	17	500	3400 min.	0603
LQP18MN12NG02	12 ±2%	500	150	1.0 max.	17	500	3000 min.	0603
LQP18MN15NG02	15 ±2%	500	150	1.3 max.	17	500	2700 min.	0603
LQP18MN18NG02	18 ±2%	500	100	1.5 max.	17	500	2300 min.	0603
LQP18MN22NG02	22 ±2%	500	100	1.9 max.	17	500	2100 min.	0603
LQP18MN27NG02	27 ±2%	500	100	2.4 max.	17	500	1900 min.	0603
LQP18MN33NG02	33 ±2%	500	100	2.8 max.	17	500	1700 min.	0603
LQP18MN39NG02	39 ±2%	500	100	2.8 max.	17	500	1400 min.	0603
LQP18MN47NG02	47 ±2%	300	100	2.2 max.	17	300	1200 min.	0603
LQP18MN56NG02	56 ±2%	300	50	3.4 max.	17	300	1000 min.	0603
LQP18MN68NG02	68 ±2%	300	50	3.5 max.	17	300	900 min.	0603
LQP18MN82NG02	82 ±2%	300	50	4.6 max.	17	300	800 min.	0603
LQP18MNR10G02	100 ±2%	300	50	6.1 max.	17	300	700 min.	0603

Operating Temp. Range : -40°C to +85°C

■ Q-Frequency Characteristics



■ Inductance-Frequency Characteristics

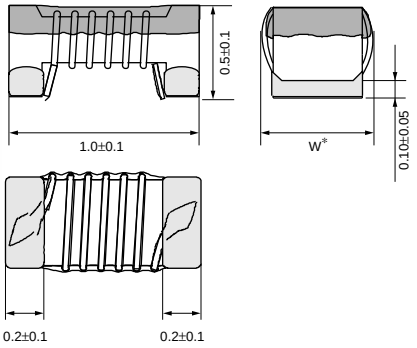


Chip Coils

High Frequency Winding Type LQW15A/LQW18A Series

LQW15A Series

The LQW15A series consists of air core chip coil using a miniature alumina core.
The tight inductance tolerance (+-0.2nH, +-3%) is available due to Murata's original winding technology.
The LQW15A series has high Q value in high frequency range and high self resonant frequency. It is suitable for high frequency circuits which are used in telecommunication equipment.



∗ W: 0.6±0.1 (1.5-22nH), 0.5 ±0.1 (27-82nH)

(in mm)

■ Features

1. Horizontal winding structure enables tight inductance tolerance (+-0.2nH, +-3%)
2. The subminiature dimensions (1.0x0.5mm) allow high density mounting.
3. The high self resonant frequency realizes high Q value and stable inductance at high frequency.
4. Low DC resistance design is ideal for low loss, high output and low power consumption.
5. Resin-coated surface enables excellent mounting.

■ Applications

1. High frequency circuits of mobile phones such as PA, ANT, VCO, SAW, etc.
2. Mobile phones such as GSM, CDMA, PDC, etc.
3. "Bluetooth"
4. W-LAN
5. High frequency circuits in general

Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (GHz)	EIA
LQW15AN1N5C00	1.5 ±0.2nH	100	1000	0.03 max.	10	250	18.0 min.	0402
LQW15AN1N5D00	1.5 ±0.5nH	100	1000	0.03 max.	10	250	18.0 min.	0402
LQW15AN2N7C00	2.7 ±0.2nH	100	850	0.05 max.	20	250	15.0 min.	0402
LQW15AN2N7D00	2.7 ±0.5nH	100	850	0.05 max.	20	250	15.0 min.	0402
LQW15AN3N9C00	3.9 ±0.2nH	100	750	0.07 max.	25	250	10.0 min.	0402
LQW15AN3N9D00	3.9 ±0.5nH	100	750	0.07 max.	25	250	10.0 min.	0402
LQW15AN4N3C00	4.3 ±0.2nH	100	750	0.07 max.	25	250	10.0 min.	0402
LQW15AN4N3D00	4.3 ±0.5nH	100	750	0.07 max.	25	250	10.0 min.	0402
LQW15AN4N7C00	4.7 ±0.2nH	100	750	0.07 max.	25	250	8.0 min.	0402
LQW15AN4N7D00	4.7 ±0.5nH	100	750	0.07 max.	25	250	8.0 min.	0402
LQW15AN5N1C00	5.1 ±0.2nH	100	600	0.12 max.	25	250	8.0 min.	0402
LQW15AN5N1D00	5.1 ±0.5nH	100	600	0.12 max.	25	250	8.0 min.	0402
LQW15AN6N2C00	6.2 ±0.2nH	100	700	0.09 max.	25	250	8.0 min.	0402
LQW15AN6N2D00	6.2 ±0.5nH	100	700	0.09 max.	25	250	8.0 min.	0402
LQW15AN6N8H00	6.8 ±3%	100	700	0.09 max.	25	250	6.0 min.	0402
LQW15AN6N8J00	6.8 ±5%	100	700	0.09 max.	25	250	6.0 min.	0402
LQW15AN7N5H00	7.5 ±3%	100	570	0.13 max.	25	250	6.0 min.	0402
LQW15AN7N5J00	7.5 ±5%	100	570	0.13 max.	25	250	6.0 min.	0402
LQW15AN8N2H00	8.2 ±3%	100	540	0.14 max.	25	250	5.5 min.	0402
LQW15AN8N2J00	8.2 ±5%	100	540	0.14 max.	25	250	5.5 min.	0402

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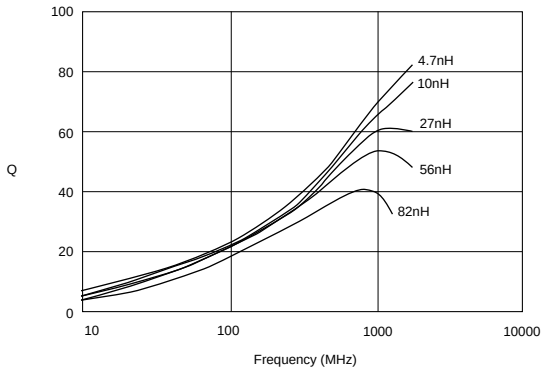
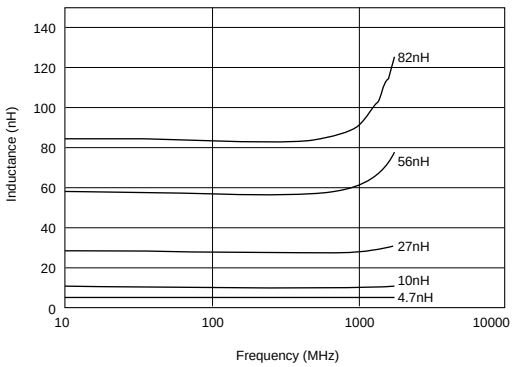
Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (GHz)	EIA
LQW15AN9N1H00	9.1 ±3%	100	540	0.14 max.	25	250	5.5 min.	0402
LQW15AN9N1J00	9.1 ±5%	100	540	0.14 max.	25	250	5.5 min.	0402
LQW15AN10NH00	10 ±3%	100	500	0.17 max.	25	250	5.5 min.	0402
LQW15AN10NJ00	10 ±5%	100	500	0.17 max.	25	250	5.5 min.	0402
LQW15AN12NH00	12 ±3%	100	500	0.14 max.	30	250	5.5 min.	0402
LQW15AN12NJ00	12 ±5%	100	500	0.14 max.	30	250	5.5 min.	0402
LQW15AN15NH00	15 ±3%	100	460	0.16 max.	30	250	5.0 min.	0402
LQW15AN15NJ00	15 ±5%	100	460	0.16 max.	30	250	5.0 min.	0402
LQW15AN18NH00	18 ±3%	100	370	0.27 max.	25	250	4.5 min.	0402
LQW15AN18NJ00	18 ±5%	100	370	0.27 max.	25	250	4.5 min.	0402
LQW15AN22NH00	22 ±3%	100	310	0.30 max.	25	250	4.0 min.	0402
LQW15AN22NJ00	22 ±5%	100	310	0.30 max.	25	250	4.0 min.	0402
LQW15AN27NH00	27 ±3%	100	280	0.52 max.	25	250	3.5 min.	0402
LQW15AN27NJ00	27 ±5%	100	280	0.52 max.	25	250	3.5 min.	0402
LQW15AN33NH00	33 ±3%	100	260	0.63 max.	25	250	3.2 min.	0402
LQW15AN33NJ00	33 ±5%	100	260	0.63 max.	25	250	3.2 min.	0402
LQW15AN39NH00	39 ±3%	100	250	0.70 max.	25	250	3.0 min.	0402
LQW15AN39NJ00	39 ±5%	100	250	0.70 max.	25	250	3.0 min.	0402
LQW15AN47NH00	47 ±3%	100	210	1.08 max.	25	200	2.9 min.	0402
LQW15AN47NJ00	47 ±5%	100	210	1.08 max.	25	200	2.9 min.	0402
LQW15AN56NH00	56 ±3%	100	200	1.17 max.	25	200	2.8 min.	0402
LQW15AN56NJ00	56 ±5%	100	200	1.17 max.	25	200	2.8 min.	0402
LQW15AN68NJ00	68 ±5%	100	140	1.96 max.	20	200	2.5 min.	0402
LQW15AN82NJ00	82 ±5%	100	130	2.24 max.	20	150	2.3 min.	0402

Operating Temp. Range : -55°C to 125°C

■ Q-Frequency Characteristics

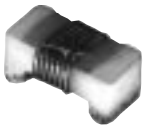


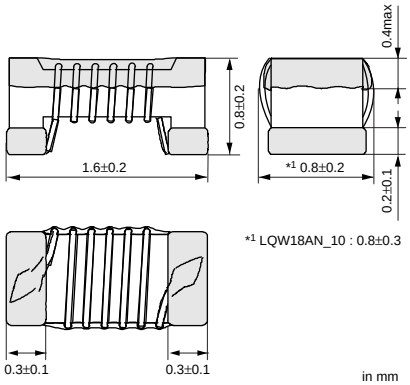
■ Inductance-Frequency Characteristics



■ Features LQW18A_00 (Standard type)

1. Broad range of inductance (2.2nH to 470nH) with E24 step line up.
2. Horizontal winding structure enables tight inductance tolerance (+-0.2nH, +-2%). Stable circuit operation is possible.
3. The subminiature dimensions (1.6x0.8mm) allow high density mounting.
4. The high self resonant frequency realizes high Q value and stable inductance at high frequency.
5. Low DC resistance design is ideal for low loss, high output and low power consumption.
6. Resin-coated surface enables excellent mounting.





■ Applications

1. High frequency circuits of mobile phones such as PA, ANT, VCO, SAW, etc.
2. Mobile phones such as GSM, CDMA, PDC, etc.
3. Bluetooth
4. W-LAN
5. High frequency circuits in general

■ Features LQW18A_10 (High Q/Low DC Resistance type)

Lower DC Resistance approximately by 50% than current type. Higher Q by 10%, higher rated current by 20%.

■ Applications

Cellular phone and Base station
W-CDMA, GSM, N-CDMA, PDC
Higher Q -- Matching circuit for antenna, SAW filter
Lower Rdc -- Choke coil for IF, RF circuit like PA
Equipment with high frequency circuits
(Wireless LAN, etc.)

LQW18A_00 Series

Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQW18AN2N2D00	2.2 ±0.5nH	100	700	0.049 max.	16	250	6000 min.	0603
LQW18AN3N6C00	3.6 ±0.2nH	100	850	0.059 max.	25	250	6000 min.	0603
LQW18AN3N6D00	3.6 ±0.5nH	100	850	0.059 max.	25	250	6000 min.	0603
LQW18AN3N9C00	3.9 ±0.2nH	100	850	0.059 max.	35	250	6000 min.	0603
LQW18AN3N9D00	3.9 ±0.5nH	100	850	0.059 max.	35	250	6000 min.	0603
LQW18AN4N3C00	4.3 ±0.2nH	100	850	0.059 max.	35	250	6000 min.	0603
LQW18AN4N3D00	4.3 ±0.5nH	100	850	0.059 max.	35	250	6000 min.	0603
LQW18AN4N7D00	4.7 ±0.5nH	100	850	0.059 max.	35	250	6000 min.	0603
LQW18AN5N6C00	5.6 ±0.2nH	100	750	0.082 max.	35	250	6000 min.	0603
LQW18AN5N6D00	5.6 ±0.5nH	100	750	0.082 max.	35	250	6000 min.	0603
LQW18AN6N2C00	6.2 ±0.2nH	100	750	0.082 max.	35	250	6000 min.	0603
LQW18AN6N2D00	6.2 ±0.5nH	100	750	0.082 max.	35	250	6000 min.	0603
LQW18AN6N8C00	6.8 ±0.2nH	100	750	0.082 max.	35	250	6000 min.	0603
LQW18AN6N8D00	6.8 ±0.5nH	100	750	0.082 max.	35	250	6000 min.	0603
LQW18AN7N5D00	7.5 ±0.5nH	100	750	0.082 max.	35	250	6000 min.	0603
LQW18AN8N2D00	8.2 ±0.5nH	100	650	0.11 max.	35	250	6000 min.	0603
LQW18AN8N7D00	8.7 ±0.5nH	100	650	0.11 max.	35	250	6000 min.	0603
LQW18AN9N1D00	9.1 ±0.5nH	100	650	0.11 max.	35	250	6000 min.	0603
LQW18AN9N5D00	9.5 ±0.5nH	100	650	0.11 max.	35	250	6000 min.	0603
LQW18AN10NG00	10 ±2%	100	650	0.11 max.	35	250	6000 min.	0603

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Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQW18AN10NJ00	10 ±5%	100	650	0.11 max.	35	250	6000 min.	0603
LQW18AN11NG00	11 ±2%	100	650	0.11 max.	35	250	6000 min.	0603
LQW18AN11NJ00	11 ±5%	100	650	0.11 max.	35	250	6000 min.	0603
LQW18AN12NG00	12 ±2%	100	600	0.13 max.	35	250	6000 min.	0603
LQW18AN12NJ00	12 ±5%	100	600	0.13 max.	35	250	6000 min.	0603
LQW18AN13NG00	13 ±2%	100	600	0.13 max.	35	250	6000 min.	0603
LQW18AN13NJ00	13 ±5%	100	600	0.13 max.	35	250	6000 min.	0603
LQW18AN15NG00	15 ±2%	100	600	0.13 max.	40	250	6000 min.	0603
LQW18AN15NJ00	15 ±5%	100	600	0.13 max.	40	250	6000 min.	0603
LQW18AN16NG00	16 ±2%	100	550	0.16 max.	40	250	5500 min.	0603
LQW18AN16NJ00	16 ±5%	100	550	0.16 max.	40	250	5500 min.	0603
LQW18AN18NG00	18 ±2%	100	550	0.16 max.	40	250	5500 min.	0603
LQW18AN18NJ00	18 ±5%	100	550	0.16 max.	40	250	5500 min.	0603
LQW18AN20NG00	20 ±2%	100	550	0.16 max.	40	250	4900 min.	0603
LQW18AN20NJ00	20 ±5%	100	550	0.16 max.	40	250	4900 min.	0603
LQW18AN22NG00	22 ±2%	100	500	0.17 max.	40	250	4600 min.	0603
LQW18AN22NJ00	22 ±5%	100	500	0.17 max.	40	250	4600 min.	0603
LQW18AN24NG00	24 ±2%	100	500	0.21 max.	40	250	3800 min.	0603
LQW18AN24NJ00	24 ±5%	100	500	0.21 max.	40	250	3800 min.	0603
LQW18AN27NG00	27 ±2%	100	440	0.21 max.	40	250	3700 min.	0603
LQW18AN27NJ00	27 ±5%	100	440	0.21 max.	40	250	3700 min.	0603
LQW18AN30NG00	30 ±2%	100	420	0.23 max.	40	250	3300 min.	0603
LQW18AN30NJ00	30 ±5%	100	420	0.23 max.	40	250	3300 min.	0603
LQW18AN33NG00	33 ±2%	100	420	0.23 max.	40	250	3200 min.	0603
LQW18AN33NJ00	33 ±5%	100	420	0.23 max.	40	250	3200 min.	0603
LQW18AN36NG00	36 ±2%	100	400	0.26 max.	40	250	2900 min.	0603
LQW18AN36NJ00	36 ±5%	100	400	0.26 max.	40	250	2900 min.	0603
LQW18AN39NG00	39 ±2%	100	400	0.26 max.	40	250	2800 min.	0603
LQW18AN39NJ00	39 ±5%	100	400	0.26 max.	40	250	2800 min.	0603
LQW18AN43NG00	43 ±2%	100	380	0.29 max.	40	200	2700 min.	0603
LQW18AN43NJ00	43 ±5%	100	380	0.29 max.	40	200	2700 min.	0603
LQW18AN47NG00	47 ±2%	100	380	0.29 max.	38	200	2600 min.	0603
LQW18AN47NJ00	47 ±5%	100	380	0.29 max.	38	200	2600 min.	0603
LQW18AN51NG00	51 ±2%	100	370	0.33 max.	38	200	2500 min.	0603
LQW18AN51NJ00	51 ±5%	100	370	0.33 max.	38	200	2500 min.	0603
LQW18AN56NG00	56 ±2%	100	360	0.35 max.	38	200	2400 min.	0603
LQW18AN56NJ00	56 ±5%	100	360	0.35 max.	38	200	2400 min.	0603
LQW18AN62NG00	62 ±2%	100	280	0.51 max.	38	200	2300 min.	0603
LQW18AN62NJ00	62 ±5%	100	280	0.51 max.	38	200	2300 min.	0603
LQW18AN68NG00	68 ±2%	100	340	0.38 max.	38	200	2200 min.	0603
LQW18AN68NJ00	68 ±5%	100	340	0.38 max.	38	200	2200 min.	0603
LQW18AN72NG00	72 ±2%	100	270	0.56 max.	34	150	2100 min.	0603
LQW18AN72NJ00	72 ±5%	100	270	0.56 max.	34	150	2100 min.	0603
LQW18AN75NG00	75 ±2%	100	270	0.56 max.	34	150	2050 min.	0603
LQW18AN75NJ00	75 ±5%	100	270	0.56 max.	34	150	2050 min.	0603
LQW18AN82NG00	82 ±2%	100	250	0.60 max.	34	150	2000 min.	0603
LQW18AN82NJ00	82 ±5%	100	250	0.60 max.	34	150	2000 min.	0603
LQW18AN91NG00	91 ±2%	100	230	0.64 max.	34	150	1900 min.	0603
LQW18AN91NJ00	91 ±5%	100	230	0.64 max.	34	150	1900 min.	0603
LQW18ANR10G00	100 ±2%	100	220	0.68 max.	34	150	1800 min.	0603
LQW18ANR10J00	100 ±5%	100	220	0.68 max.	34	150	1800 min.	0603
LQW18ANR11G00	110 ±2%	100	200	1.2 max.	32	150	1350 min.	0603
LQW18ANR11J00	110 ±5%	100	200	1.2 max.	32	150	1350 min.	0603
LQW18ANR12G00	120 ±2%	100	180	1.3 max.	32	150	1600 min.	0603
LQW18ANR12J00	120 ±5%	100	180	1.3 max.	32	150	1600 min.	0603
LQW18ANR13G00	130 ±2%	100	170	1.4 max.	32	150	1450 min.	0603
LQW18ANR13J00	130 ±5%	100	170	1.4 max.	32	150	1450 min.	0603

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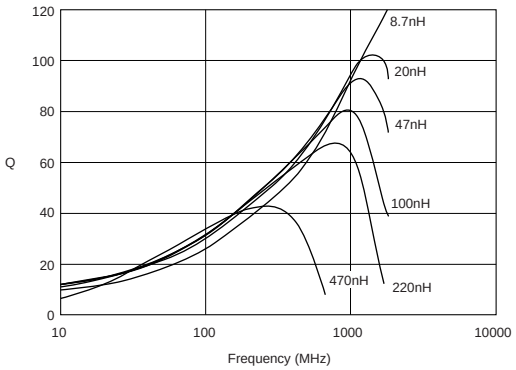
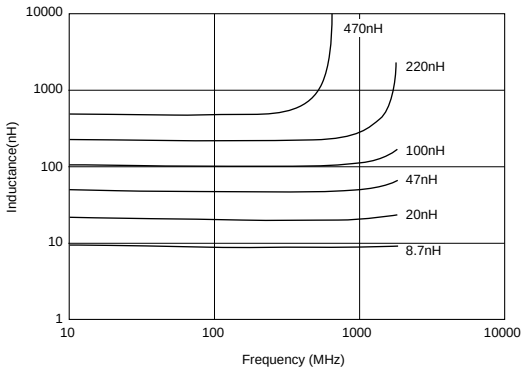
Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQW18ANR15G00	150 ±2%	100	160	1.5 max.	32	150	1400 min.	0603
LQW18ANR15J00	150 ±5%	100	160	1.5 max.	32	150	1400 min.	0603
LQW18ANR16G00	160 ±2%	100	150	2.1 max.	32	150	1350 min.	0603
LQW18ANR16J00	160 ±5%	100	150	2.1 max.	32	150	1350 min.	0603
LQW18ANR18G00	180 ±2%	100	140	2.2 max.	25	100	1300 min.	0603
LQW18ANR18J00	180 ±5%	100	140	2.2 max.	25	100	1300 min.	0603
LQW18ANR20G00	200 ±2%	100	120	2.4 max.	25	100	1250 min.	0603
LQW18ANR20J00	200 ±5%	100	120	2.4 max.	25	100	1250 min.	0603
LQW18ANR22G00	220 ±2%	100	120	2.5 max.	25	100	1200 min.	0603
LQW18ANR22J00	220 ±5%	100	120	2.5 max.	25	100	1200 min.	0603
LQW18ANR27G00	270 ±2%	100	110	3.4 max.	30	100	960 min.	0603
LQW18ANR27J00	270 ±5%	100	110	3.4 max.	30	100	960 min.	0603
LQW18ANR33G00	330 ±2%	100	85	5.5 max.	30	100	800 min.	0603
LQW18ANR33J00	330 ±5%	100	85	5.5 max.	30	100	800 min.	0603
LQW18ANR39G00	390 ±2%	100	80	6.2 max.	30	100	800 min.	0603
LQW18ANR39J00	390 ±5%	100	80	6.2 max.	30	100	800 min.	0603
LQW18ANR47G00	470 ±2%	100	75	7.0 max.	30	100	700 min.	0603
LQW18ANR47J00	470 ±5%	100	75	7.0 max.	30	100	700 min.	0603

Operating Temp. Range : -25°C to 85°C

■ Q-Frequency Characteristics



■ Inductance-Frequency Characteristics

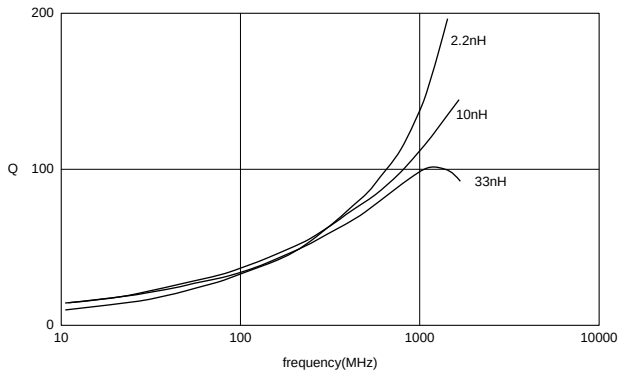


LQW18A_10 Series (High Q/Low DC Resistance Type)

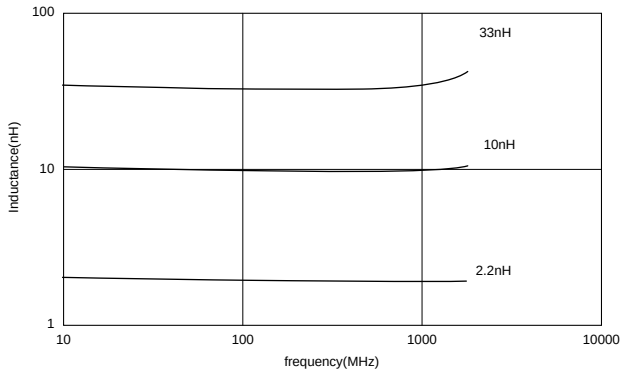
Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQW18AN2N2D10	2.2 ±0.5nH	100	1400	0.018 max.	25	250	18000 min.	0603
LQW18AN3N9C10	3.9 ±0.2nH	100	1000	0.032 max.	38	250	11000 min.	0603
LQW18AN3N9D10	3.9 ±0.5nH	100	1000	0.032 max.	38	250	11000 min.	0603
LQW18AN5N6D10	5.6 ±0.5nH	100	900	0.045 max.	38	250	10000 min.	0603
LQW18AN6N8C10	6.8 ±0.2nH	100	900	0.045 max.	38	250	7000 min.	0603
LQW18AN6N8D10	6.8 ±0.5nH	100	900	0.045 max.	38	250	7000 min.	0603
LQW18AN8N2D10	8.2 ±0.5nH	100	800	0.058 max.	38	250	7000 min.	0603
LQW18AN10NG10	10 ±2%	100	800	0.058 max.	38	250	5000 min.	0603
LQW18AN10NJ10	10 ±5%	100	800	0.058 max.	38	250	5000 min.	0603
LQW18AN12NG10	12 ±2%	100	750	0.071 max.	38	250	5000 min.	0603
LQW18AN12NJ10	12 ±5%	100	750	0.071 max.	38	250	5000 min.	0603
LQW18AN15NJ10	15 ±5%	100	700	0.085 max.	42	250	4500 min.	0603
LQW18AN18NG10	18 ±2%	100	700	0.085 max.	42	250	3500 min.	0603
LQW18AN18NJ10	18 ±5%	100	700	0.085 max.	42	250	3500 min.	0603
LQW18AN22NG10	22 ±2%	100	640	0.099 max.	42	250	3200 min.	0603
LQW18AN22NJ10	22 ±5%	100	640	0.099 max.	42	250	3200 min.	0603
LQW18AN27NG10	27 ±2%	100	590	0.116 max.	42	250	2800 min.	0603
LQW18AN27NJ10	27 ±5%	100	590	0.116 max.	42	250	2800 min.	0603
LQW18AN33NJ10	33 ±5%	100	550	0.132 max.	42	250	2500 min.	0603

Operating Temp. Range : -25°C to 85°C

■ Q-Frequency Characteristics

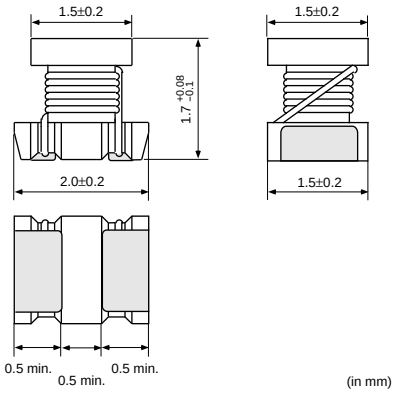


■ Inductance-Frequency Characteristics



Chip Coils

High Frequency Winding Type LQW2BH/LQW31H Series



LQW2BH series consists of air-core chip coil using a sub-miniature alumina core as a bobbin.

■ Features

1. Inductance range from 2.7 to 470nH
2. Their high self-resonant frequency characteristic yields a high Q value and highly stable inductance at high frequencies.
3. Low DC resistance design enables handling of higher rated current.
4. The series has excellent solder heat resistance. Both flow and reflow soldering methods can be employed.
5. LQW2BHN_D/_J/_K
   Inductance tolerance +-0.5nH (8.2nH max.), +-5% (10 to 220nH), +-10% (270nH to 470nH) is realized. The sub miniature dimensions (2.0x1.5mm) allow high density mounting.
   LQW2BHN_G (Tight inductance tolerance)
   Tight inductance tolerance of +-2% is available.
   LQW2BHN_13 (High Q/Low DC Resistance Type)
   LQW2BHN_13 using thick wire (0.12mm in diameter) has higher Q value than existing LQW2BH series. Low DC resistance design enables handling of higher current. Inductance range from 2.7 to 27nH.
6. Does not contain lead.

■ Applications

High frequency circuit in telecommunication equipment, such as DECT, PHS, PCS, PCN, GSM and CDMA
Impedance Matching -- Power-AMP Module (PA)
SAW filter
Resonance circuits -- VCO

LQW2BH_03 Series

Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQW2BHN3N3D03	3.3 ±0.5nH	100	910	0.05 max.	10	250	6000 min.	0805
LQW2BHN6N8D03	6.8 ±0.5nH	100	680	0.11 max.	20	250	5400 min.	0805
LQW2BHN8N2D03	8.2 ±0.5nH	100	630	0.12 max.	20	250	3900 min.	0805
LQW2BHN10NJ03	10 ±5%	100	1320	0.03 max.	30	250	3300 min.	0805
LQW2BHN12NJ03	12 ±5%	100	680	0.11 max.	30	250	3200 min.	0805
LQW2BHN15NJ03	15 ±5%	100	630	0.12 max.	30	250	2700 min.	0805
LQW2BHN18NJ03	18 ±5%	100	690	0.10 max.	30	250	2600 min.	0805
LQW2BHN22NJ03	22 ±5%	100	720	0.09 max.	30	250	2100 min.	0805
LQW2BHN27NJ03	27 ±5%	100	540	0.17 max.	40	250	2300 min.	0805
LQW2BHN33NG03	33 ±2%	100	570	0.15 max.	40	250	1900 min.	0805
LQW2BHN33NJ03	33 ±5%	100	570	0.15 max.	40	250	1900 min.	0805
LQW2BHN39NG03	39 ±2%	100	730	0.09 max.	40	250	1700 min.	0805
LQW2BHN39NJ03	39 ±5%	100	730	0.09 max.	40	250	1700 min.	0805
LQW2BHN47NG03	47 ±2%	100	450	0.23 max.	40	200	1600 min.	0805

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Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQW2BHN47NJ03	47 ±5%	100	450	0.23 max.	40	200	1600 min.	0805
LQW2BHN56NG03	56 ±2%	100	430	0.26 max.	40	200	1500 min.	0805
LQW2BHN56NJ03	56 ±5%	100	430	0.26 max.	40	200	1500 min.	0805
LQW2BHN68NG03	68 ±2%	100	460	0.23 max.	40	200	1200 min.	0805
LQW2BHN68NJ03	68 ±5%	100	460	0.23 max.	40	200	1200 min.	0805
LQW2BHN82NG03	82 ±2%	100	320	0.42 max.	40	150	1100 min.	0805
LQW2BHN82NJ03	82 ±5%	100	320	0.42 max.	40	150	1100 min.	0805
LQW2BHNR10G03	100 ±2%	100	270	0.55 max.	35	150	900 min.	0805
LQW2BHNR10J03	100 ±5%	100	350	0.38 max.	40	150	900 min.	0805
LQW2BHNR12G03	120 ±2%	100	320	0.40 max.	40	150	750 min.	0805
LQW2BHNR12J03	120 ±5%	100	320	0.40 max.	40	150	750 min.	0805
LQW2BHNR15G03	150 ±2%	100	260	0.68 max.	30	150	350 min.	0805
LQW2BHNR15J03	150 ±5%	100	390	0.47 max.	30	150	350 min.	0805
LQW2BHNR18G03	180 ±2%	100	250	0.71 max.	35	100	700 min.	0805
LQW2BHNR18J03	180 ±5%	100	250	0.71 max.	35	100	700 min.	0805
LQW2BHNR22G03	220 ±2%	100	240	0.70 max.	35	100	500 min.	0805
LQW2BHNR22J03	220 ±5%	100	240	0.70 max.	35	100	500 min.	0805
LQW2BHNR27J03	270 ±5%	10	190	2.00 max.	15	25.2	550 min.	0805
LQW2BHNR27K03	270 ±10%	10	190	2.00 max.	15	25.2	550 min.	0805
LQW2BHNR33J03	330 ±5%	10	180	2.20 max.	15	25.2	500 min.	0805
LQW2BHNR33K03	330 ±10%	10	180	2.20 max.	15	25.2	500 min.	0805
LQW2BHNR39J03	390 ±5%	10	170	2.50 max.	15	25.2	400 min.	0805
LQW2BHNR39K03	390 ±10%	10	170	2.50 max.	15	25.2	400 min.	0805
LQW2BHNR47J03	470 ±5%	10	160	2.80 max.	15	25.2	350 min.	0805
LQW2BHNR47K03	470 ±10%	10	160	2.80 max.	15	25.2	350 min.	0805

Operating Temp. Range : -25°C to 85°C

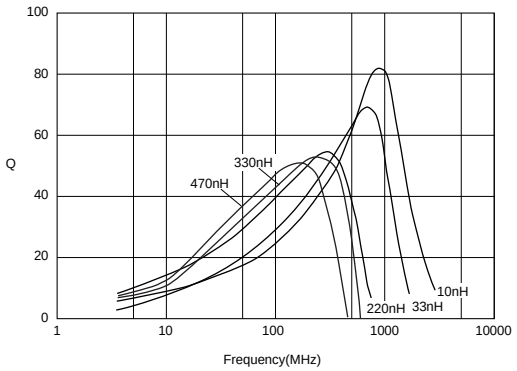
LQW2BH_13 (High Q/Low DC Resistance Type)

Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQW2BHN2N7D13	2.7 ±0.5nH	100	1900	0.02 max.	20	250	6000 min.	0805
LQW2BHN3N1D13	3.1 ±0.5nH	100	1800	0.02 max.	20	250	6000 min.	0805
LQW2BHN3N3D13	3.3 ±0.5nH	100	1700	0.02 max.	20	250	6000 min.	0805
LQW2BHN5N6D13	5.6 ±0.5nH	100	1500	0.02 max.	35	250	6000 min.	0805
LQW2BHN6N8D13	6.8 ±0.5nH	100	1400	0.02 max.	35	250	5400 min.	0805
LQW2BHN8N6D13	8.6 ±0.5nH	100	1300	0.03 max.	35	250	3900 min.	0805
LQW2BHN10NJ13	10 ±5%	100	1320	0.03 max.	35	250	3300 min.	0805
LQW2BHN12NK13	12 ±10%	100	1100	0.04 max.	40	250	3200 min.	0805
LQW2BHN15NK13	15 ±10%	100	1000	0.04 max.	40	250	3100 min.	0805
LQW2BHN18NK13	18.8 ±10%	100	1000	0.05 max.	40	250	2600 min.	0805
LQW2BHN21NK13	21 ±10%	100	950	0.05 max.	40	250	2200 min.	0805
LQW2BHN27NK13	27 ±10%	100	900	0.06 max.	40	250	1800 min.	0805

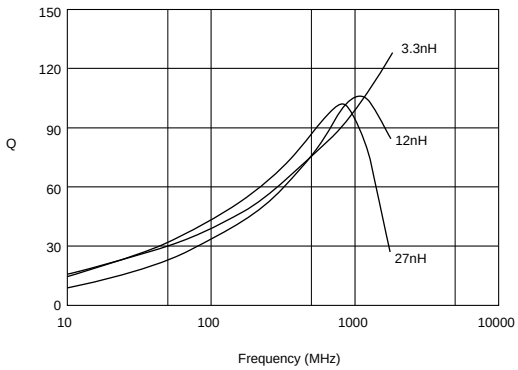
Operating Temp. Range : -25°C to 85°C

■ Q-Frequency Characteristics

LQW2BHN_03

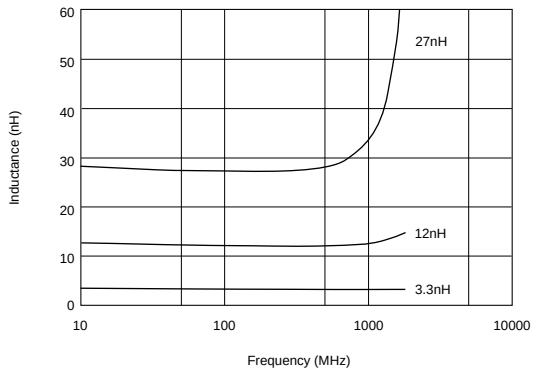


LQW2BH_13



■ Inductance-Frequency Characteristics

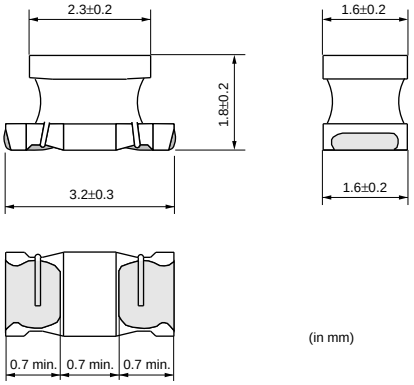
LQW2BH_13



4

LQW31H Series

LQW31H series is alumina-core-type chip inductor for high frequency circuit. Its low dc resistance and high Q due to wound structure are suitable for hand telecommunication equipment.



■ Features

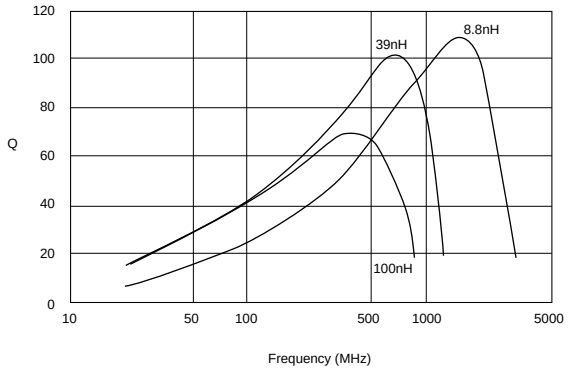
1. Inductance range from 8.8 to 100nH.
2. Because of the high self resonant frequency, it can be used in high frequency range.
3. Tight inductance tolerance (+-5%)
4. LQW31H_03: Does not contain lead.

4

Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQW31HN8N8J03	8.8 ±5%	100	750	0.029 ±40%	50	436	1000 min.	1206
LQW31HN8N8K03	8.8 ±10%	100	750	0.029 ±40%	50	436	1000 min.	1206
LQW31HN15NJ03	14.7 ±5%	100	680	0.035 ±40%	60	436	1000 min.	1206
LQW31HN15NK03	14.7 ±10%	100	680	0.035 ±40%	60	436	1000 min.	1206
LQW31HN17NJ03	17 ±5%	100	650	0.037 ±40%	60	436	1000 min.	1206
LQW31HN17NK03	17 ±10%	100	650	0.037 ±40%	60	436	1000 min.	1206
LQW31HN23NJ03	23 ±5%	100	590	0.046 ±40%	60	436	1000 min.	1206
LQW31HN23NK03	23 ±10%	100	590	0.046 ±40%	60	436	1000 min.	1206
LQW31HN27NJ03	27 ±5%	100	560	0.051 ±40%	60	436	1000 min.	1206
LQW31HN27NK03	27 ±10%	100	560	0.051 ±40%	60	436	1000 min.	1206
LQW31HN33NJ03	33 ±5%	100	530	0.057 ±40%	60	436	1000 min.	1206
LQW31HN33NK03	33 ±10%	100	530	0.057 ±40%	60	436	1000 min.	1206
LQW31HN39NJ03	39 ±5%	100	490	0.067 ±40%	60	436	1000 min.	1206
LQW31HN39NK03	39 ±10%	100	490	0.067 ±40%	60	436	1000 min.	1206
LQW31HN47NJ03	47 ±5%	100	380	0.11 ±40%	60	436	1000 min.	1206
LQW31HN47NK03	47 ±10%	100	380	0.11 ±40%	60	436	1000 min.	1206
LQW31HN56NJ03	56 ±5%	100	330	0.14 ±40%	60	436	1000 min.	1206
LQW31HN56NK03	56 ±10%	100	330	0.14 ±40%	60	436	1000 min.	1206
LQW31HN64NJ03	64 ±5%	100	290	0.18 ±40%	60	436	1000 min.	1206
LQW31HN64NK03	64 ±10%	100	290	0.18 ±40%	60	436	1000 min.	1206
LQW31HN84NJ03	84 ±5%	100	240	0.28 ±40%	60	436	1000 min.	1206
LQW31HN84NK03	84 ±10%	100	240	0.28 ±40%	60	436	1000 min.	1206
LQW31HNR10J03	100 ±5%	100	230	0.3 ±40%	60	436	900 min.	1206
LQW31HNR10K03	100 ±10%	100	230	0.3 ±40%	60	436	900 min.	1206

Operating Temp. Range : -25°C to 85°C

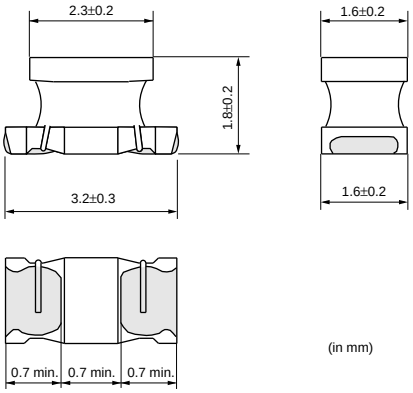
■ Q-Frequency Characteristics



Chip Coils

High Frequency Winding Type LQH31H Series

LQH31H series is winding type chip coil with ferrite core for high frequency.



(in mm)

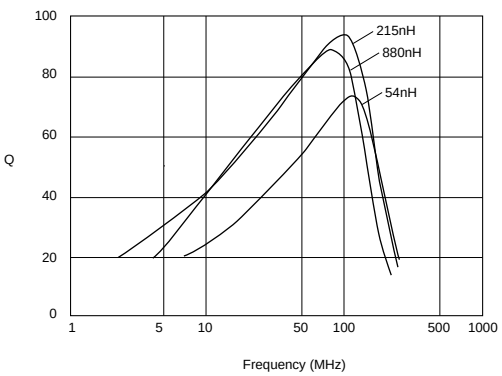
■ Features

1. Inductance range from 54 to 880nH
2. High Q value and stable inductance in high frequency range from 30 to 150MHz
3. Both flow and reflow soldering methods can be employed for excellent solder heat resistance.
4. LQH31H_03: Does not contain lead.

Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQH31HN54NK03	54 ±10%	1	920	0.035 ±30%	50	100	800 min.	1206
LQH31HN95NK03	95 ±10%	1	790	0.047 ±30%	60	100	650 min.	1206
LQH31HNR14J03	145 ±5%	1	700	0.061 ±30%	60	100	500 min.	1206
LQH31HNR14K03	145 ±10%	1	700	0.061 ±30%	60	100	500 min.	1206
LQH31HNR21J03	215 ±5%	1	520	0.11 ±30%	60	100	430 min.	1206
LQH31HNR21K03	215 ±10%	1	520	0.11 ±30%	60	100	430 min.	1206
LQH31HNR29J03	290 ±5%	1	420	0.17 ±30%	60	100	360 min.	1206
LQH31HNR29K03	290 ±10%	1	420	0.17 ±30%	60	100	360 min.	1206
LQH31HNR39J03	390 ±5%	1	330	0.26 ±30%	60	100	300 min.	1206
LQH31HNR39K03	390 ±10%	1	330	0.26 ±30%	60	100	300 min.	1206
LQH31HNR50J03	500 ±5%	1	260	0.44 ±30%	60	100	270 min.	1206
LQH31HNR50K03	500 ±10%	1	260	0.44 ±30%	60	100	270 min.	1206
LQH31HNR61J03	610 ±5%	1	250	0.48 ±30%	60	100	240 min.	1206
LQH31HNR61K03	610 ±10%	1	250	0.48 ±30%	60	100	240 min.	1206
LQH31HNR75J03	750 ±5%	1	190	0.79 ±30%	60	100	220 min.	1206
LQH31HNR75K03	750 ±10%	1	190	0.79 ±30%	60	100	220 min.	1206
LQH31HNR88J03	880 ±5%	1	180	0.86 ±30%	60	100	200 min.	1206
LQH31HNR88K03	880 ±10%	1	180	0.86 ±30%	60	100	200 min.	1206

Operating Temp. Range : -25°C to 85°C

■ Q-Frequency Characteristics

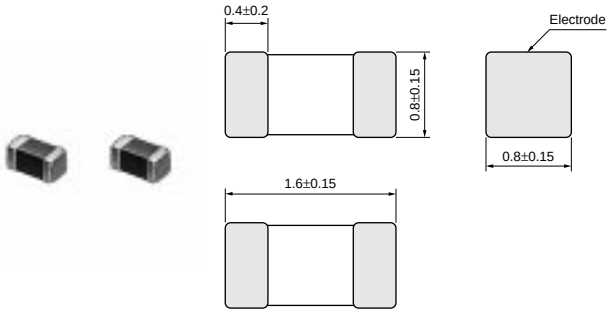


Chip Coils

for General Use Monolithic Type LQM18N/LQM21N Series

LQM18N Series

The LQM18N series of magnetically shielded chip coils was developed by using original multilayer process technology and magnetic materials.
Compact size is suitable for high density mounting.
Shielded construction is not affected by interference from peripheral components.



(in mm)

■ Features

1. Magnetically shielded structure provides excellent characteristics in cross talk and magnetic coupling.
2. Compact size (1.6x0.8mm) and light weight
3. The external electrodes with nickel barrier structure provide excellent solder heat resistance. Both flow and reflow soldering can be applicable.

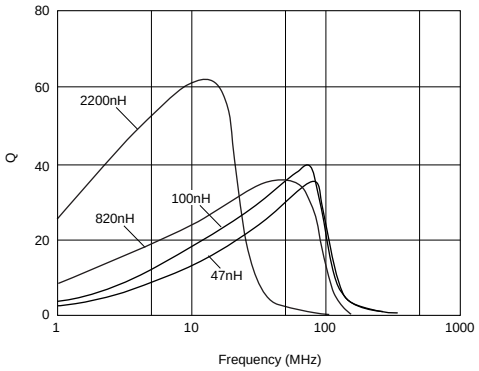
■ Applications

1. Resonance circuit, traps, filter circuits
2. RF choke in telecommunication equipment, cordless phones, radio equipment

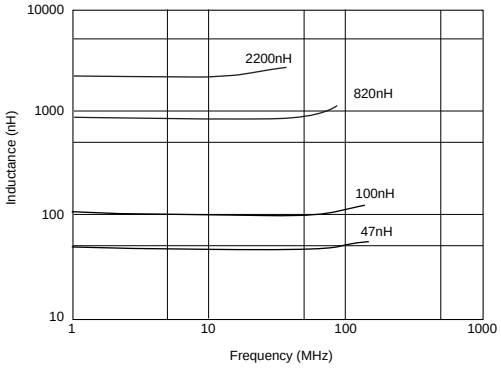
Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQM18NN47NM00	47 ±20%	50	50	0.30 max.	10	50	260 min.	0603
LQM18NN68NM00	68 ±20%	50	50	0.30 max.	10	50	250 min.	0603
LQM18NN82NM00	82 ±20%	50	50	0.30 max.	10	50	245 min.	0603
LQM18NNR10K00	100 ±10%	25	50	0.50 max.	15	25	240 min.	0603
LQM18NNR12K00	120 ±10%	25	50	0.50 max.	15	25	205 min.	0603
LQM18NNR15K00	150 ±10%	25	50	0.60 max.	15	25	180 min.	0603
LQM18NNR18K00	180 ±10%	25	50	0.60 max.	15	25	165 min.	0603
LQM18NNR22K00	220 ±10%	25	50	0.80 max.	15	25	150 min.	0603
LQM18NNR27K00	270 ±10%	25	50	0.80 max.	15	25	136 min.	0603
LQM18NNR33K00	330 ±10%	25	35	0.85 max.	15	25	125 min.	0603
LQM18NNR39K00	390 ±10%	25	35	1.00 max.	15	25	110 min.	0603
LQM18NNR47K00	470 ±10%	25	35	1.35 max.	15	25	105 min.	0603
LQM18NNR56K00	560 ±10%	25	35	1.55 max.	15	25	95 min.	0603
LQM18NNR68K00	680 ±10%	25	35	1.70 max.	15	25	90 min.	0603
LQM18NNR82K00	820 ±10%	25	35	2.10 max.	15	25	85 min.	0603
LQM18NN1R0K00	1000 ±10%	10	25	0.60 max.	35	10	75 min.	0603
LQM18NN1R2K00	1200 ±10%	10	25	0.80 max.	35	10	65 min.	0603
LQM18NN1R5K00	1500 ±10%	10	25	0.80 max.	35	10	60 min.	0603
LQM18NN1R8K00	1800 ±10%	10	25	0.95 max.	35	10	55 min.	0603
LQM18NN2R2K00	2200 ±10%	10	15	1.15 max.	35	10	50 min.	0603

Operating Temp. Range : -40°C to +85°C

■ Q-Frequency Characteristics



■ Inductance-Current Characteristics

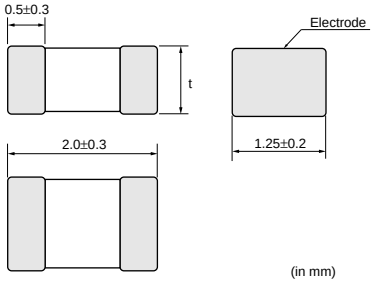


6

LQM21N Series

■ Features

The LQM21N series consists of magnetically shielded chip inductors developed using Murata's original multilayer process technology and magnetic materials. The miniature size of 2.0x1.25mm enables compact design of electric equipment. Inductance range from 0.1 micro H to 4.7 micro H is available.

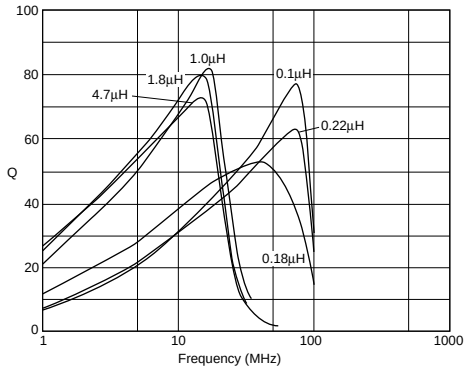


Dimension of t	Inductance : 0.1 to 2.2μH	0.85±0.2
	Inductance : 2.7 to 4.7μH	1.25±0.2

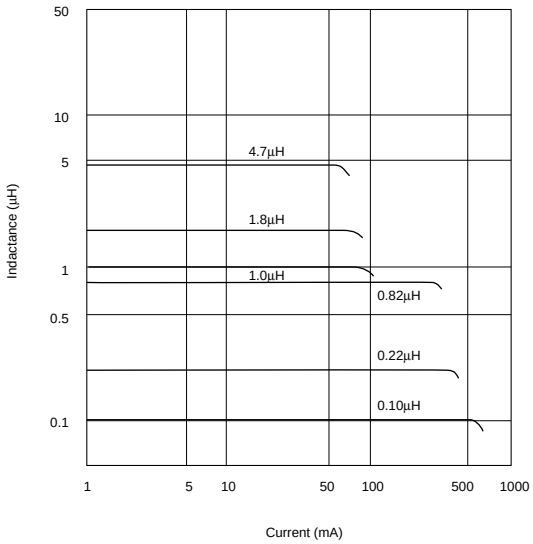
Part Number	Inductance (μH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQM21NNR10K10	0.1 ±10%	25	250	0.26 max.	20	25	340 min.	0805
LQM21NNR12K10	0.12 ±10%	25	250	0.29 max.	20	25	310 min.	0805
LQM21NNR15K10	0.15 ±10%	25	250	0.32 max.	20	25	270 min.	0805
LQM21NNR18K10	0.18 ±10%	25	250	0.35 max.	20	25	250 min.	0805
LQM21NNR22K10	0.22 ±10%	25	250	0.38 max.	20	25	220 min.	0805
LQM21NNR27K10	0.27 ±10%	25	250	0.42 max.	20	25	200 min.	0805
LQM21NNR33K10	0.33 ±10%	25	250	0.48 max.	20	25	180 min.	0805
LQM21NNR39K10	0.39 ±10%	25	200	0.53 max.	25	25	165 min.	0805
LQM21NNR47K10	0.47 ±10%	25	200	0.57 max.	25	25	150 min.	0805
LQM21NNR56K10	0.56 ±10%	25	150	0.63 max.	25	25	140 min.	0805
LQM21NNR68K10	0.68 ±10%	25	150	0.72 max.	25	25	125 min.	0805
LQM21NNR82K10	0.82 ±10%	25	150	0.81 max.	25	25	115 min.	0805
LQM21NN1R0K10	1 ±10%	10	50	0.40 max.	45	10	107 min.	0805
LQM21NN1R2K10	1.2 ±10%	10	50	0.47 max.	45	10	97 min.	0805
LQM21NN1R5K10	1.5 ±10%	10	50	0.50 max.	45	10	87 min.	0805
LQM21NN1R8K10	1.8 ±10%	10	50	0.57 max.	45	10	80 min.	0805
LQM21NN2R2K10	2.2 ±10%	10	30	0.63 max.	45	10	71 min.	0805
LQM21NN2R7K10	2.7 ±10%	10	30	0.69 max.	45	10	66 min.	0805
LQM21NN3R3K10	3.3 ±10%	10	30	0.80 max.	45	10	59 min.	0805
LQM21NN3R9K10	3.9 ±10%	10	30	0.89 max.	45	10	53 min.	0805
LQM21NN4R7K10	4.7 ±10%	10	30	1.00 max.	45	10	47 min.	0805

Operating Temp. Range : -40°C to 85°C

■ Q-Frequency Characteristics



■ Inductance-Current Characteristics



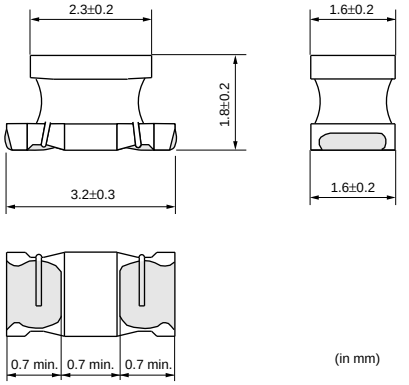
6

Chip Coils

for General Use Winding Type LQH31M/LQH32M/LQH43M (N) Series

LQH31M Series

LQH31M series consists of winding type chip coils using Murata's original ferrite core and auto winding technology.



■ Features

1. Wide inductance range from 0.15 to 100 microH
2. High Q value at high frequencies and low DC resistance
3. Small size (3.2x1.6x1.8mm) and tight pitch mounting
4. Low DC resistance and large current
5. Both flow and reflow soldering heat resistance
6. LQH31M_03: Does not contain lead.

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Part Number	Inductance (μH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQH31MNR15K03	0.15 ±10%	1	250	0.39 ±40%	20	25	250 min.	1206
LQH31MNR22K03	0.22 ±10%	1	240	0.43 ±40%	20	25	250 min.	1206
LQH31MNR33K03	0.33 ±10%	1	230	0.45 ±40%	30	25	250 min.	1206
LQH31MNR47K03	0.47 ±10%	1	215	0.83 ±40%	30	25	200 min.	1206
LQH31MNR56K03	0.56 ±10%	1	200	0.61 ±40%	30	25	180 min.	1206
LQH31MNR68K03	0.68 ±10%	1	190	0.67 ±40%	30	25	160 min.	1206
LQH31MNR82K03	0.82 ±10%	1	185	0.73 ±40%	30	25	120 min.	1206
LQH31MN1R0K03	1.0 ±10%	1	175	0.49 ±30%	35	10	100 min.	1206
LQH31MN1R2K03	1.2 ±10%	1	165	0.9 ±30%	35	10	90 min.	1206
LQH31MN1R5J03	1.5 ±5%	1	155	1.0 ±30%	35	10	75 min.	1206
LQH31MN1R5K03	1.5 ±10%	1	155	1.0 ±30%	35	10	75 min.	1206
LQH31MN1R8J03	1.8 ±5%	1	150	1.6 ±30%	35	10	60 min.	1206
LQH31MN1R8K03	1.8 ±10%	1	150	1.6 ±30%	35	10	60 min.	1206
LQH31MN2R2J03	2.2 ±5%	1	140	0.7 ±30%	35	10	50 min.	1206
LQH31MN2R2K03	2.2 ±10%	1	140	0.7 ±30%	35	10	50 min.	1206
LQH31MN2R7J03	2.7 ±5%	1	135	0.55 ±30%	35	10	43 min.	1206
LQH31MN2R7K03	2.7 ±10%	1	135	0.55 ±30%	35	10	43 min.	1206
LQH31MN3R3J03	3.3 ±5%	1	130	1.4 ±30%	35	8	38 min.	1206
LQH31MN3R3K03	3.3 ±10%	1	130	1.4 ±30%	35	8	38 min.	1206
LQH31MN3R9J03	3.9 ±5%	1	125	1.5 ±30%	35	8	35 min.	1206
LQH31MN3R9K03	3.9 ±10%	1	125	1.5 ±30%	35	8	35 min.	1206
LQH31MN4R7J03	4.7 ±5%	1	120	1.7 ±30	35	8	31 min.	1206
LQH31MN4R7K03	4.7 ±10%	1	120	1.7 ±30%	35	8	31 min.	1206
LQH31MN5R6J03	5.6 ±5%	1	115	1.8 ±30%	35	8	28 min.	1206
LQH31MN5R6K03	5.6 ±10%	1	115	1.8 ±30%	35	8	28 min.	1206
LQH31MN6R8J03	6.8 ±5%	1	110	2.0 ±30%	35	8	25 min.	1206
LQH31MN6R8K03	6.8 ±10%	1	110	2.0 ±30%	35	8	25 min.	1206
LQH31MN8R2J03	8.2 ±5%	1	105	2.2 ±30%	35	8	23 min.	1206
LQH31MN8R2K03	8.2 ±10%	1	105	2.2 ±30%	35	8	23 min.	1206
LQH31MN100J03	10 ±5%	1	100	2.5 ±30%	35	5	20 min.	1206
LQH31MN100K03	10 ±10%	1	100	2.5 ±30%	35	5	20 min.	1206
LQH31MN120J03	12 ±5%	1	95	2.7 ±30%	35	5	18 min.	1206
LQH31MN120K03	12 ±10%	1	95	2.7 ±30%	35	5	18 min.	1206
LQH31MN150J03	15 ±5%	1	90	3.0 ±30%	35	5	16 min.	1206
LQH31MN150K03	15 ±10%	1	90	3 ±30%	35	5	16 min.	1206

Continued on the following page.

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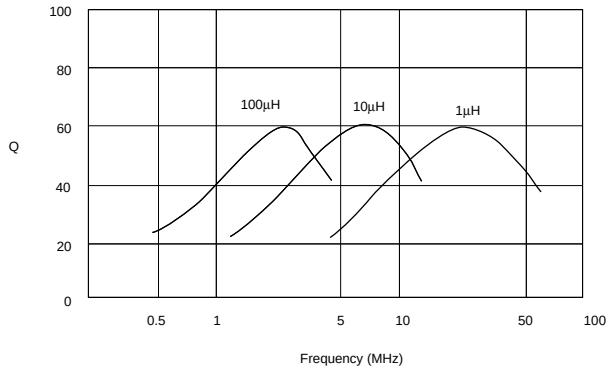
Part Number	Inductance (μH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQH31MN180J03	18 ±5%	1	85	3.4 ±30%	35	5	15 min.	1206
LQH31MN180K03	18 ±10%	1	85	3.4 ±30%	35	5	15 min.	1206
LQH31MN220J03	22 ±5%	1	85	3.1 ±30%	40	2.5	14 min.	1206
LQH31MN220K03	22 ±10%	1	85	3.1 ±30%	40	2.5	14 min.	1206
LQH31MN270J03	27 ±5%	1	85	3.4 ±30%	40	2.5	13 min.	1206
LQH31MN270K03	27 ±10%	1	85	3.4 ±30%	40	2.5	13 min.	1206
LQH31MN330J03	33 ±5%	1	80	3.8 ±30%	40	2.5	12 min.	1206
LQH31MN330K03	33 ±10%	1	80	3.8 ±30%	40	2.5	12 min.	1206
LQH31MN390J03	39 ±5%	1	55	7.2 ±30%	40	2.5	11 min.	1206
LQH31MN390K03	39 ±10%	1	55	7.2 ±30%	40	2.5	11 min.	1206
LQH31MN470J03	47 ±5%	1	55	8 ±30%	40	2.5	10 min.	1206
LQH31MN470K03	47 ±10%	1	55	8.0 ±30%	40	2.5	10 min.	1206
LQH31MN560J03	56 ±5%	1	50	8.9 ±30%	40	2.5	9 min.	1206
LQH31MN560K03	56 ±10%	1	50	8.9 ±30%	40	2.5	9 min.	1206
LQH31MN680J03	68 ±5%	1	50	9.9 ±30%	40	2.5	8.5 min.	1206
LQH31MN680K03	68 ±10%	1	50	9.9 ±30%	40	2.5	8.5 min.	1206
LQH31MN820J03	82 ±5%	1	45	11 ±30%	40	2.5	7.5 min.	1206
LQH31MN820K03	82 ±10%	1	45	11 ±30%	40	2.5	7.5 min.	1206
LQH31MN101J03	100 ±5%	1	45	12 ±30%	40	2.5	7 min.	1206
LQH31MN101K03	100 ±10%	1	45	12 ±30%	40	2.5	7 min.	1206

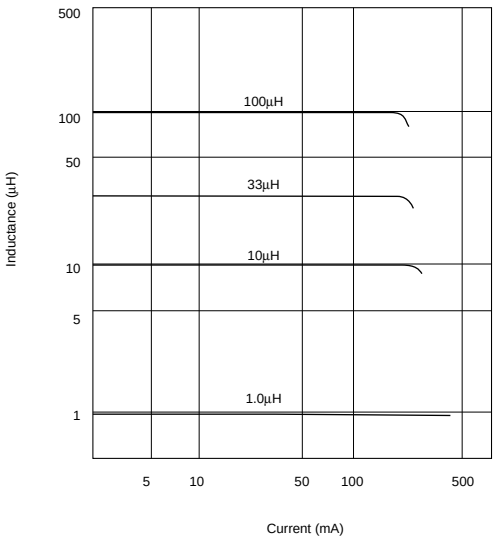
Operating Temp. Range : -25°C to 85°C

7

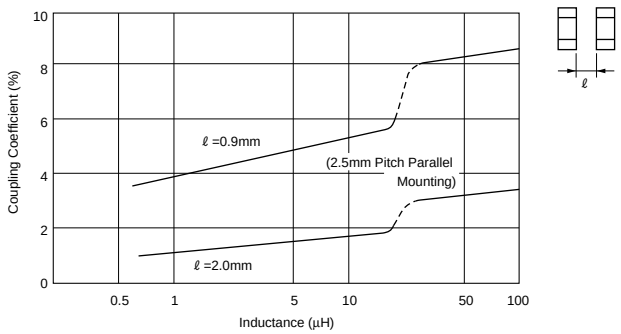
■ Q-Frequency Characteristics



■ Inductance-Current Characteristics

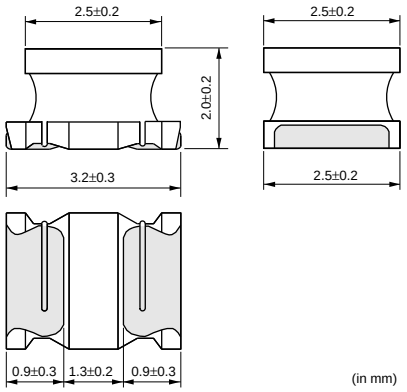


■ Coupling Coefficient



LQH32M Series

LQH32M series consists of miniature chip inductors wound on a special ferrite core.



(in mm)

■ Features

1. High Q value at high frequencies and low DC resistance
2. Wide inductance range from 1.0 to 560 micro H
3. LQH32M_23: Does not contain lead.

Part Number	Inductance (μH)	Test Frequency	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency	Self Resonance Frequency (MHz)	EIA
LQH32MN1R0M23	1.0 ±20%	1MHz	445	0.5 max.	20	1MHz	100 min.	1210
LQH32MN1R2M23	1.2 ±20%	1MHz	425	0.6 max.	20	1MHz	100 min.	1210
LQH32MN1R5K23	1.5 ±10%	1MHz	400	0.6 max.	20	1MHz	75 min.	1210
LQH32MN1R8K23	1.8 ±10%	1MHz	390	0.7 max.	20	1MHz	60 min.	1210
LQH32MN2R2K23	2.2 ±10%	1MHz	370	0.8 max.	20	1MHz	50 min.	1210
LQH32MN2R7K23	2.7 ±10%	1MHz	320	0.9 max.	20	1MHz	43 min.	1210
LQH32MN3R3K23	3.3 ±10%	1MHz	300	1.0 max.	20	1MHz	38 min.	1210
LQH32MN3R9K23	3.9 ±10%	1MHz	290	1.1 max.	20	1MHz	35 min.	1210
LQH32MN4R7K23	4.7 ±10%	1MHz	270	1.2 max.	20	1MHz	31 min.	1210
LQH32MN5R6K23	5.6 ±10%	1MHz	250	1.3 max.	20	1MHz	28 min.	1210
LQH32MN6R8K23	6.8 ±10%	1MHz	240	1.5 max.	20	1MHz	25 min.	1210
LQH32MN8R2K23	8.2 ±10%	1MHz	225	1.6 max.	20	1MHz	23 min.	1210
LQH32MN100J23	10 ±5%	1MHz	190	1.8 max.	35	1MHz	20 min.	1210
LQH32MN100K23	10 ±10%	1MHz	190	1.8 max.	35	1MHz	20 min.	1210
LQH32MN120J23	12 ±5%	1MHz	180	2.0 max.	35	1MHz	18 min.	1210
LQH32MN120K23	12 ±10%	1MHz	180	2.0 max.	35	1MHz	18 min.	1210
LQH32MN150J23	15 ±5%	1MHz	170	2.2 max.	35	1MHz	16 min.	1210
LQH32MN150K23	15 ±10%	1MHz	170	2.2 max.	35	1MHz	16 min.	1210
LQH32MN180J23	18 ±5%	1MHz	165	2.5 max.	35	1MHz	15 min.	1210
LQH32MN180K23	18 ±10%	1MHz	165	2.5 max.	35	1MHz	15 min.	1210
LQH32MN220J23	22 ±5%	1MHz	150	2.8 max.	35	1MHz	14 min.	1210
LQH32MN220K23	22 ±10%	1MHz	150	2.8 max.	35	1MHz	14 min.	1210
LQH32MN270J23	27 ±5%	1MHz	125	3.1 max.	35	1MHz	13 min.	1210
LQH32MN270K23	27 ±10%	1MHz	125	3.1 max.	35	1MHz	13 min.	1210
LQH32MN330J23	33 ±5%	1MHz	115	3.5 max.	40	1MHz	12 min.	1210
LQH32MN330K23	33 ±10%	1MHz	115	3.5 max.	40	1MHz	12 min.	1210
LQH32MN390J23	39 ±5%	1MHz	110	3.9 max.	40	1MHz	11 min.	1210
LQH32MN390K23	39 ±10%	1MHz	110	3.9 max.	40	1MHz	11 min.	1210
LQH32MN470J23	47 ±5%	1MHz	100	4.3 max.	40	1MHz	11 min.	1210
LQH32MN470K23	47 ±10%	1MHz	100	4.3 max.	40	1MHz	11 min.	1210
LQH32MN560J23	56 ±5%	1MHz	85	4.9 max.	40	1MHz	10 min.	1210
LQH32MN560K23	56 ±10%	1MHz	85	4.9 max.	40	1MHz	10 min.	1210
LQH32MN680J23	68 ±5%	1MHz	80	5.5 max.	40	1MHz	9 min.	1210
LQH32MN680K23	68 ±10%	1MHz	80	5.5 max.	40	1MHz	9 min.	1210
LQH32MN820J23	82 ±5%	1MHz	70	6.2 max.	40	1MHz	8.5 min.	1210
LQH32MN820K23	82 ±10%	1MHz	70	6.2 max.	40	1MHz	8.5 min.	1210
LQH32MN101J23	100 ±5%	1MHz	80	7.0 max.	40	796kHz	8 min.	1210
LQH32MN101K23	100 ±10%	1MHz	80	7.0 max.	40	796kHz	8 min.	1210
LQH32MN121J23	120 ±5%	1MHz	75	8.0 max.	40	796kHz	7.5 min.	1210
LQH32MN121K23	120 ±10%	1MHz	75	8.0 max.	40	796kHz	7.5 min.	1210
LQH32MN151J23	150 ±5%	1MHz	70	9.3 max.	40	796kHz	7 min.	1210
LQH32MN151K23	150 ±10%	1MHz	70	9.3 max.	40	796kHz	7 min.	1210

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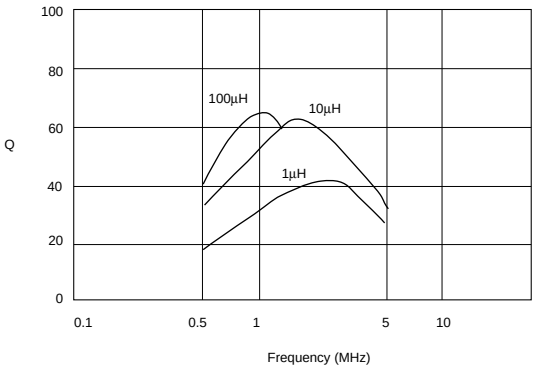
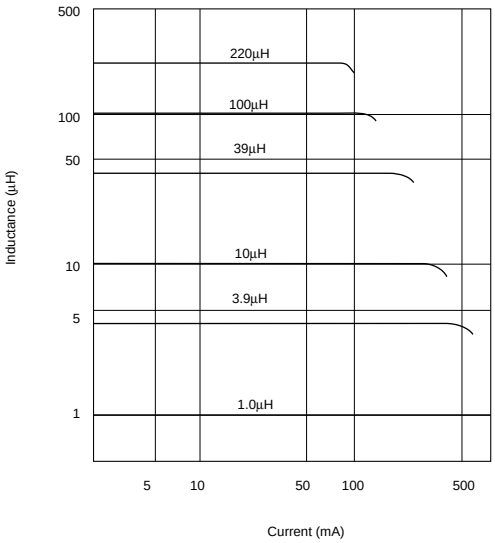
Part Number	Inductance (μH)	Test Frequency	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency	Self Resonance Frequency (MHz)	EIA
LQH32MN181J23	180 ±5%	1MHz	65	10.2 max.	40	796kHz	6 min.	1210
LQH32MN181K23	180 ±10%	1MHz	65	10.2 max.	40	796kHz	6 min.	1210
LQH32MN221J23	220 ±5%	1MHz	65	11.8 max.	40	796kHz	5.5 min.	1210
LQH32MN221K23	220 ±10%	1MHz	65	11.8 max.	40	796kHz	5.5 min.	1210
LQH32MN271J23	270 ±5%	1MHz	65	12.5 max.	40	796kHz	5 min.	1210
LQH32MN271K23	270 ±10%	1MHz	65	12.5 max.	40	796kHz	5 min.	1210
LQH32MN331J23	330 ±5%	1MHz	65	13.0 max.	40	796kHz	5 min.	1210
LQH32MN331K23	330 ±10%	1MHz	65	13.0 max.	40	796kHz	5 min.	1210
LQH32MN391J23	390 ±5%	1MHz	50	22.0 max.	50	796kHz	5 min.	1210
LQH32MN391K23	390 ±10%	1MHz	50	22.0 max.	50	796kHz	5 min.	1210
LQH32MN471J23	470 ±5%	1kHz	45	25.0 max.	50	796kHz	5 min.	1210
LQH32MN471K23	470 ±10%	1kHz	45	25.0 max.	50	796kHz	5 min.	1210
LQH32MN561J23	560 ±5%	1kHz	40	28.0 max.	50	796kHz	5 min.	1210
LQH32MN561K23	560 ±10%	1kHz	40	28.0 max.	50	796kHz	5 min.	1210

Operating Temp. Range : -25°C to 85°C

■ Q-Frequency Characteristics



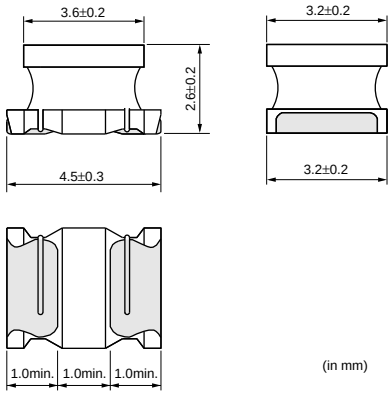
■ Inductance-Current Characteristics



7

LQH43M/N Series

LQH43M/N series consists of winding type chip coils for general use by Murata's original auto winding technology and ferrite core.



■ Features

1. High Q value at high frequency and low DC resistance
2. Wide inductance range from 1.0 to 2200 micro H
3. Large current and large inductance
4. LQH43M/N_03: Does not contain lead.

Part Number	Inductance (μH)	Test Frequency	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency	Self Resonance Frequency (MHz)	EIA
LQH43MN1R0M03	1.0 ±20%	1MHz	500	0.20 max.	20	1MHz	120 min.	1812
LQH43MN1R2M03	1.2 ±20%	1MHz	500	0.20 max.	20	1MHz	100 min.	1812
LQH43MN1R5M03	1.5 ±20%	1MHz	500	0.30 max.	20	1MHz	85 min.	1812
LQH43MN1R8M03	1.8 ±20%	1MHz	500	0.30 max.	20	1MHz	75 min.	1812
LQH43MN2R2M03	2.2 ±20%	1MHz	500	0.30 max.	20	1MHz	62 min.	1812
LQH43MN2R7M03	2.7 ±20%	1MHz	500	0.32 max.	20	1MHz	53 min.	1812
LQH43MN3R3M03	3.3 ±20%	1MHz	500	0.35 max.	20	1MHz	47 min.	1812
LQH43MN3R9M03	3.9 ±20%	1MHz	500	0.38 max.	20	1MHz	41 min.	1812
LQH43MN4R7K03	4.7 ±10%	1MHz	500	0.40 max.	30	1MHz	38 min.	1812
LQH43MN5R6K03	5.6 ±10%	1MHz	500	0.47 max.	30	1MHz	33 min.	1812
LQH43MN6R8K03	6.8 ±10%	1MHz	450	0.50 max.	30	1MHz	31 min.	1812
LQH43MN8R2K03	8.2 ±10%	1MHz	450	0.56 max.	30	1MHz	27 min.	1812
LQH43MN100J03	10 ±5%	1MHz	400	0.56 max.	35	1MHz	23 min.	1812
LQH43MN100K03	10 ±10%	1MHz	400	0.56 max.	35	1MHz	23 min.	1812
LQH43MN120J03	12 ±5%	1MHz	380	0.62 max.	35	1MHz	21 min.	1812
LQH43MN120K03	12 ±10%	1MHz	380	0.62 max.	35	1MHz	21 min.	1812
LQH43MN150J03	15 ±5%	1MHz	360	0.73 max.	35	1MHz	19 min.	1812
LQH43MN150K03	15 ±10%	1MHz	360	0.73 max.	35	1MHz	19 min.	1812
LQH43MN180J03	18 ±5%	1MHz	340	0.82 max.	35	1MHz	17 min.	1812
LQH43MN180K03	18 ±10%	1MHz	340	0.82 max.	35	1MHz	17 min.	1812
LQH43MN220J03	22 ±5%	1MHz	320	0.94 max.	35	1MHz	15 min.	1812
LQH43MN220K03	22 ±10%	1MHz	320	0.94 max.	35	1MHz	15 min.	1812
LQH43MN270J03	27 ±5%	1MHz	300	1.1 max.	35	1MHz	14 min.	1812
LQH43MN270K03	27 ±10%	1MHz	300	1.1 max.	35	1MHz	14 min.	1812
LQH43MN330J03	33 ±5%	1MHz	270	1.2 max.	35	1MHz	12 min.	1812
LQH43MN330K03	33 ±10%	1MHz	270	1.2 max.	35	1MHz	12 min.	1812
LQH43MN390J03	39 ±5%	1MHz	240	1.4 max.	35	1MHz	11 min.	1812
LQH43MN390K03	39 ±10%	1MHz	240	1.4 max.	35	1MHz	11 min.	1812
LQH43MN470J03	47 ±5%	1MHz	220	1.5 max.	35	1MHz	10 min.	1812
LQH43MN470K03	47 ±10%	1MHz	220	1.5 max.	35	1MHz	10 min.	1812
LQH43MN560J03	56 ±5%	1MHz	200	1.7 max.	35	1MHz	9.3 min.	1812
LQH43MN560K03	56 ±10%	1MHz	200	1.7 max.	35	1MHz	9.3 min.	1812
LQH43MN680J03	68 ±5%	1MHz	180	1.9 max.	35	1MHz	8.4 min.	1812
LQH43MN680K03	68 ±10%	1MHz	180	1.9 max.	35	1MHz	8.4 min.	1812
LQH43MN820J03	82 ±5%	1MHz	170	2.2 max.	35	1MHz	7.5 min.	1812
LQH43MN820K03	82 ±10%	1MHz	170	2.2 max.	35	1MHz	7.5 min.	1812
LQH43MN101J03	100 ±5%	1MHz	160	2.5 max.	40	796kHz	6.8 min.	1812
LQH43MN101K03	100 ±10%	1MHz	160	2.5 max.	40	796kHz	6.8 min.	1812
LQH43MN121J03	120 ±5%	1MHz	150	3.0 max.	40	796kHz	6.2 min.	1812
LQH43MN121K03	120 ±10%	1MHz	150	3.0 max.	40	796kHz	6.2 min.	1812
LQH43MN151J03	150 ±5%	1MHz	130	3.7 max.	40	796kHz	5.5 min.	1812
LQH43MN151K03	150 ±10%	1MHz	130	3.7 max.	40	796kHz	5.5 min.	1812

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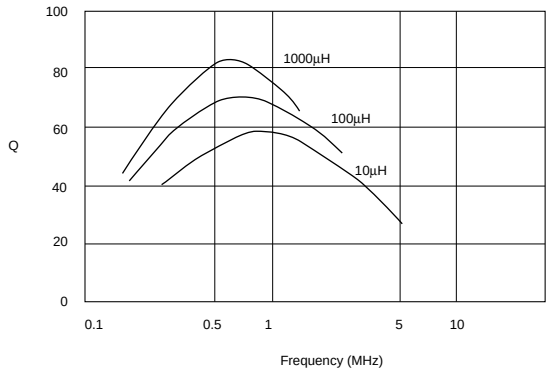
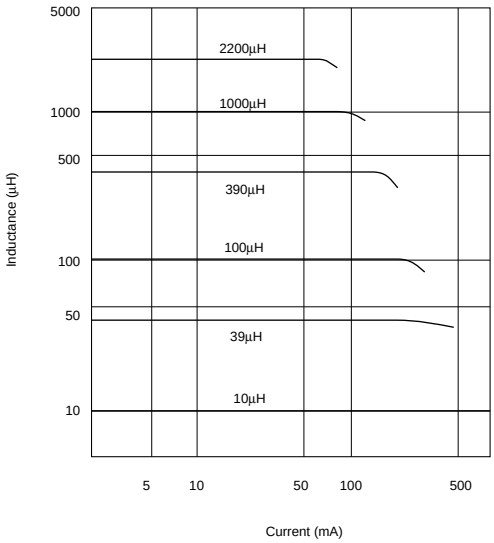
Part Number	Inductance (μH)	Test Frequency	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency	Self Resonance Frequency (MHz)	EIA
LQH43MN181J03	180 ±5%	1MHz	120	4.5 max.	40	796kHz	5 min.	1812
LQH43MN181K03	180 ±10%	1MHz	120	4.5 max.	40	796kHz	5 min.	1812
LQH43MN221J03	220 ±5%	1MHz	110	5.4 max.	40	796kHz	4.5 min.	1812
LQH43MN221K03	220 ±10%	1MHz	110	5.4 max.	40	796kHz	4.5 min.	1812
LQH43MN271J03	270 ±5%	1MHz	100	6.8 max.	40	796kHz	4 min.	1812
LQH43MN271K03	270 ±10%	1MHz	100	6.8 max.	40	796kHz	4 min.	1812
LQH43MN331J03	330 ±5%	1MHz	95	8.2 max.	40	796kHz	3.6 min.	1812
LQH43MN331K03	330 ±10%	1MHz	95	8.2 max.	40	796kHz	3.6 min.	1812
LQH43MN391J03	390 ±5%	1MHz	90	9.7 max.	40	796kHz	3.3 min.	1812
LQH43MN391K03	390 ±10%	1MHz	90	9.7 max.	40	796kHz	3.3 min.	1812
LQH43MN471J03	470 ±5%	1kHz	80	11.8 max.	40	796kHz	3 min.	1812
LQH43MN471K03	470 ±10%	1kHz	80	11.8 max.	40	796kHz	3 min.	1812
LQH43MN561J03	560 ±5%	1kHz	70	14.5 max.	40	796kHz	2.7 min.	1812
LQH43MN561K03	560 ±10%	1kHz	70	14.5 max.	40	796kHz	2.7 min.	1812
LQH43MN681J03	680 ±5%	1kHz	65	17.0 max.	40	796kHz	2.5 min.	1812
LQH43MN681K03	680 ±10%	1kHz	65	17.0 max.	40	796kHz	2.5 min.	1812
LQH43MN821J03	820 ±5%	1kHz	60	20.5 max.	40	796kHz	2.2 min.	1812
LQH43MN821K03	820 ±10%	1kHz	60	20.5 max.	40	796kHz	2.2 min.	1812
LQH43MN102J03	1000 ±5%	1kHz	50	25.0 max.	40	252kHz	2 min.	1812
LQH43MN102K03	1000 ±10%	1kHz	50	25.0 max.	40	252kHz	2 min.	1812
LQH43MN122J03	1200 ±5%	1kHz	45	30.0 max.	40	252kHz	1.8 min.	1812
LQH43MN122K03	1200 ±10%	1kHz	45	30.0 max.	40	252kHz	1.8 min.	1812
LQH43MN152J03	1500 ±5%	1kHz	40	37.0 max.	40	252kHz	1.6 min.	1812
LQH43MN152K03	1500 ±10%	1kHz	40	37.0 max.	40	252kHz	1.6 min.	1812
LQH43NN182J03	1800 ±5%	1kHz	35	45.0 max.	40	252kHz	1.5 min.	1812
LQH43NN182K03	1800 ±10%	1kHz	35	45.0 max.	40	252kHz	1.5 min.	1812
LQH43NN222J03	2200 ±5%	1kHz	30	50.0 max.	40	252kHz	1.3 min.	1812
LQH43NN222K03	2200 ±10%	1kHz	30	50.0 max.	40	252kHz	1.3 min.	1812

Operating Temp. Range : -25°C to 85°C

■ Q-Frequency Characteristics



■ Inductance-Current Characteristics

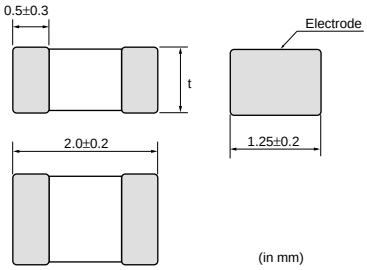


Chip Coils

for Choke Monolithic Type LQM21D/LQM21F/LQM31F Series

LQM21D Series

The LQM21D series consists of magnetically shielded chip inductors. It has less than half the DC resistance of our conventional monolithic chip inductors as well as high inductance.



Dimension of t	Inductance : 1.0 to 10µH	0.85±0.2
	Inductance : 22 to 47µH	1.25±0.2

■ Features

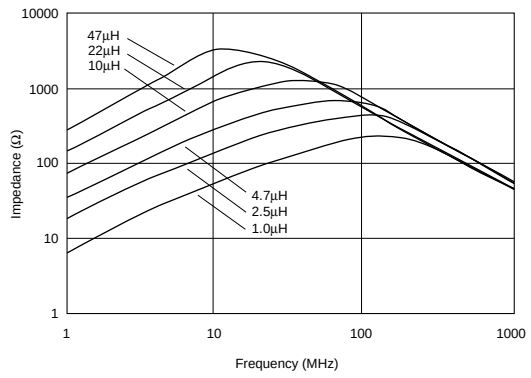
1. The inductors have very low DC resistance.
2. The series has an inductance range of 1.0 micro H to 47 micro H.
3. Magnetically shielded structure provides excellent crosstalk characteristics.
4. Compact (2.0x1.25mm) and lightweight
5. Outstanding solder heat resistance. Either flow or reflow soldering methods can be employed.

Part Number	Inductance (µH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Self Resonance Frequency (MHz)	EIA
LQM21DN1R0N00	1.0 ±30%	1	60	0.10 max.	75 min.	0805
LQM21DN2R2N00	2.2 ±30%	1	40	0.17 max.	50 min.	0805
LQM21DN4R7N00	4.7 ±30%	1	30	0.30 max.	35 min.	0805
LQM21DN100N00	10 ±30%	1	15	0.50 max.	24 min.	0805
LQM21DN220N00	22 ±30%	1	13	0.65 max.	16 min.	0805
LQM21DN470N00	47 ±30%	1	7	1.20 max.	7.5 min.	0805

Operating Temp. Range : -40°C to 85°C

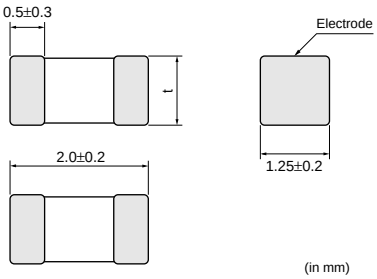
■ Impedance-Frequency Characteristics

LQM21D



LQM21F Series

The LQM21F series consists of magnetically shielded chip coils based on Murata's technologies of multilayer process and magnetic materials. Excellent direct current characteristics are realized by using magnetic materials which have excellent saturation characteristics. The inductance of LQM21F is four times as large as that of conventional items.



(in mm)

Dimension of t	Inductance : 1.0 to 2.2μH	0.85±0.2
	Inductance : 4.7 to 47μH	1.25±0.2

■ Features

1. LQM21F series is suitable for power line choke because of its excellent direct current characteristics. The series has larger rated current (60mA at 10 micro H) than conventional rated current.
2. Low DC resistance is realized.
3. The cross talk characteristics are excellent because of the use of magnetically shielded structure.
4. Small size (2.0x1.25mm) and light weight
5. The series has excellent solder heat resistance. Both flow and reflow soldering can be employed.

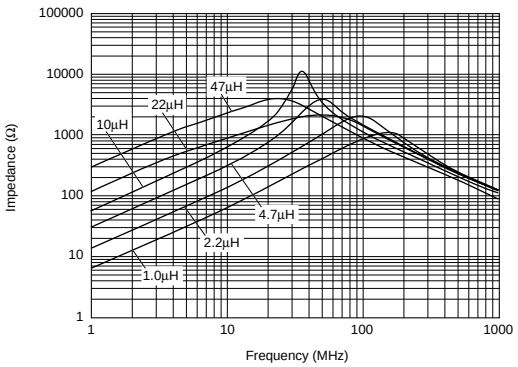
Part Number	Inductance (μH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Self Resonance Frequency (MHz)	EIA
LQM21FN1R0N00	1.0 ±30%	1	220	0.20 ±30%	105 min.	0805
LQM21FN2R2N00	2.2 ±30%	1	150	0.28 ±30%	70 min.	0805
LQM21FN4R7N00	4.7 ±30%	1	80	0.30 ±30%	25 min.	0805
LQM21FN100N00	10 ±30%	1	60	0.50 ±30%	15 min.	0805
LQM21FN220N00	22 ±30%	1	13	0.35 ±30%	15 min.	0805
LQM21FN470N00	47 ±30%	1	7	0.60 ±30%	7.5 min.	0805

Operating Temp. Range : -40°C to 85°C

8

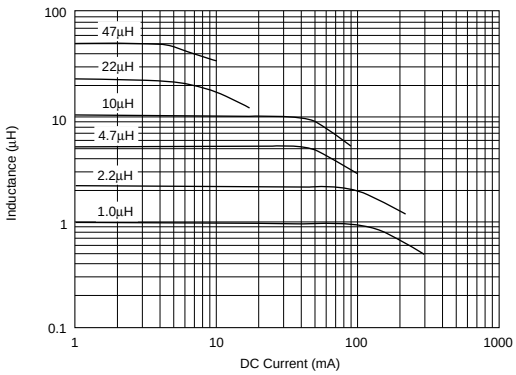
■ Impedance-Frequency Characteristics

LQM21F



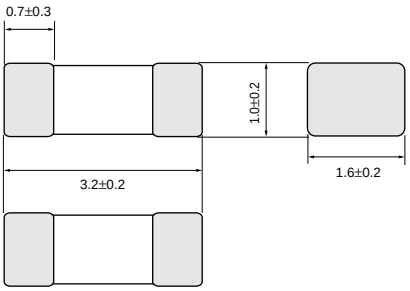
■ Inductance-Current Characteristics

LQM21F



LQM31F Series

LQM31F series consists of magnetically shielded chip coils based on Murata's technologies of multilayer process and magnetic materials. Excellent direct current characteristics and low DC resistance are realized by using magnetic materials which have excellent saturation characteristics and high permeability.



(in mm)

■ Features

1. LQM31F series is suitable for power line choke because of its excellent direct current characteristics and large rated current (70mA at 10 micro H).
2. Low DC resistance is realized.
3. The cross talk characteristics are excellent because of magnetically shielded structure.
4. Low profile 1.0mm
5. The series has excellent solder heat resistance. Both flow and reflow soldering can be employed.

■ Applications

Circuits for DC power line choke of telecommunication equipment such as PDA, Note-PC, digital camera, MD and DVD-RAM

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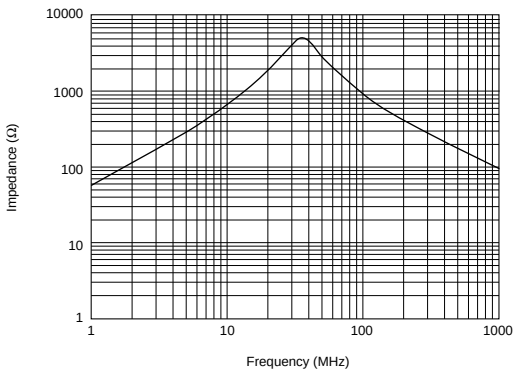
Part Number	Inductance (μH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Self Resonance Frequency (MHz)	EIA
LQM31FN100M00	10 ±20%	1	70	0.50 max.	20 min.	1206

Operating Temp. Range : -40°C to 85°C

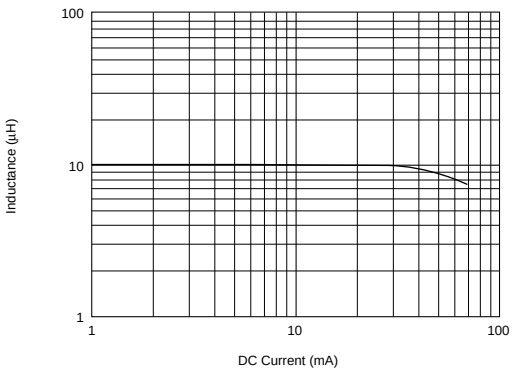
■ Impedance-Frequency Characteristics

LQM31F



■ Inductance-Current Characteristics

LQM31F



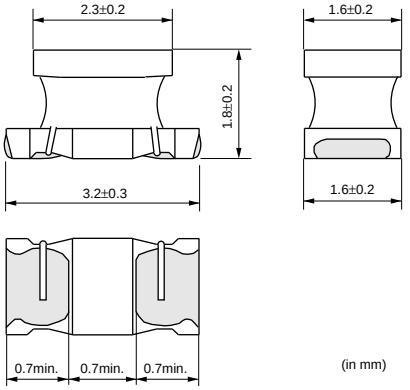
Chip Coils

for Choke Winding Type LQH31C/LQH32C/LQH43C Series

LQH31C Series

■ Features

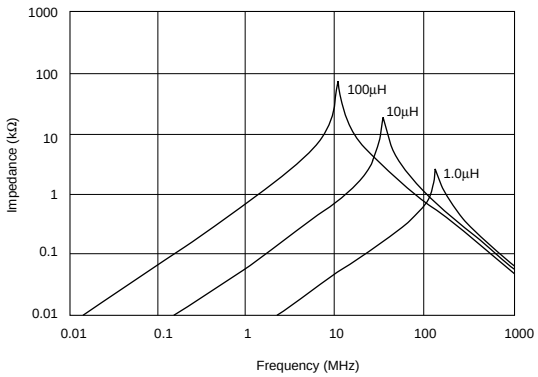
LQH31C series consists of miniature chip inductors with low DC resistance, high current capacity, and high impedance characteristics. It is suitable for use as choke coils in DC power supply circuits. High rated current up to 970mA is available.
LQH31C_03: Does not contain lead.



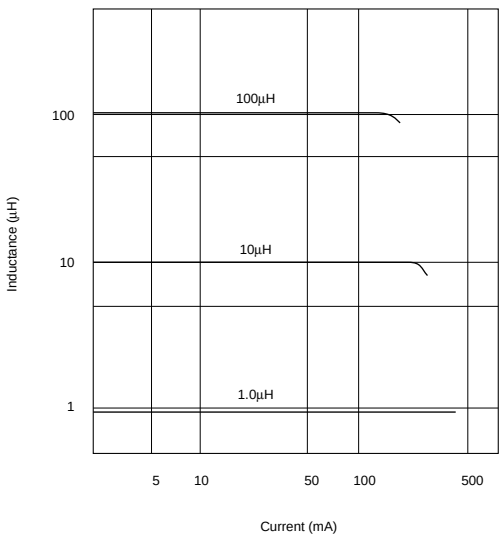
Part Number	Inductance (μH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Self Resonance Frequency (MHz)	EIA
LQH31CNR12M03	0.12 ±20%	1	970	0.08 ±40%	250 min.	1206
LQH31CNR22M03	0.22 ±20%	1	850	0.1 ±40%	250 min.	1206
LQH31CNR47M03	0.47 ±20%	1	700	0.15 ±40%	180 min.	1206
LQH31CN1R0M03	1.0 ±20%	1	510	0.28 ±30%	100 min.	1206
LQH31CN2R2M03	2.2 ±20%	1	430	0.41 ±30%	50 min.	1206
LQH31CN4R7M03	4.7 ±20%	1	340	0.65 ±30%	31 min.	1206
LQH31CN100K03	10 ±10%	1	230	1.3 ±30%	20 min.	1206
LQH31CN220K03	22 ±10%	1	160	3.0 ±30%	14 min.	1206
LQH31CN470K03	47 ±10%	1	100	8.0 ±30%	10 min.	1206
LQH31CN101K03	100 ±10%	1	80	12 ±30%	7 min.	1206

Operating Temp. Range : -25°C to 85°C

■ Impedance-Frequency Characteristics



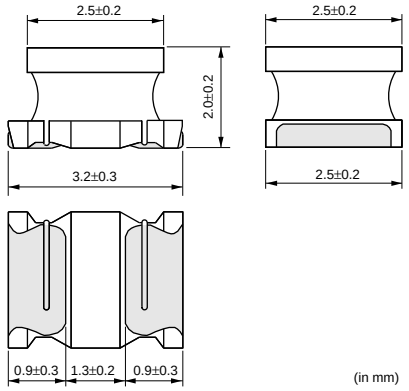
■ Inductance-Current Characteristics



9

LQH32C series consists of miniature chip coils with low DC resistance, high current capacity, and high impedance characteristics. These features are made possible by the development of Murata's innovative automatic winding techniques.

LQH32C_23/_33



■ Features (LQH32C_23/_33)

1. Low DC resistance, high rated current and high inductance. Inductance : 0.15 to 560 micro H.
2. The series exhibits low voltage drops and small variations in inductance with respect to temperature rise and DC current level. This makes them excellent for use as power supply line choke coils.
3. The series has excellent solder heat resistance. Both flow and reflow soldering methods can be employed.
4. LQH32C_23/_33: Does not contain lead.

LQH32C_23 Series

Part Number	Inductance (μH)	Test Frequency	Rated Current (mA)	DC Resistance (ohm)	Self Resonance Frequency (MHz)	EIA
LQH32CN1R0M23	1.0 ±20%	1MHz	800	0.06 ±30%	96 min.	1210
LQH32CN2R2M23	2.2 ±20%	1MHz	600	0.13 ±30%	64 min.	1210
LQH32CN4R7M23	4.7 ±20%	1MHz	450	0.2 ±30%	43 min.	1210
LQH32CN100K23	10 ±10%	1MHz	300	0.44 ±30%	26 min.	1210
LQH32CN220K23	22 ±10%	1MHz	250	0.71 ±30%	19 min.	1210
LQH32CN470K23	47 ±10%	1MHz	170	1.3 ±30%	15 min.	1210
LQH32CN101K23	100 ±10%	1MHz	100	3.5 ±30%	10 min.	1210
LQH32CN221K23	220 ±10%	1MHz	70	8.4 ±30%	6.8 min.	1210
LQH32CN331K23	330 ±10%	1MHz	60	10 ±30%	5.6 min.	1210
LQH32CN391K23	390 ±10%	1MHz	60	17 ±30%	5 min.	1210
LQH32CN471K23	470 ±10%	1kHz	60	19 ±30%	5 min.	1210
LQH32CN561K23	560 ±10%	1kHz	60	22 ±30%	5 min.	1210

Operating Temp. Range : -25°C to 85°C

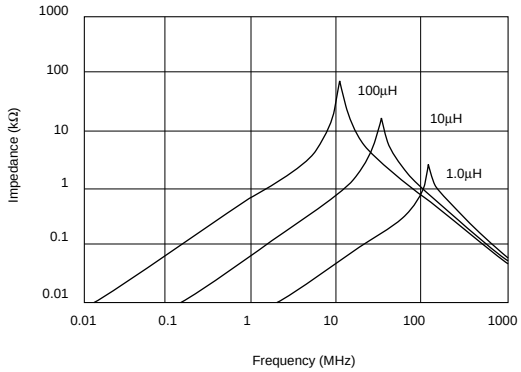
LQH32C_33 Series (Low DC Resistance Type)

Part Number	Inductance (μH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Self Resonance Frequency (MHz)	EIA
LQH32CNR15M33	0.15 ±20%	1	1450	0.028 ±30%	400 min.	1210
LQH32CNR27M33	0.27 ±20%	1	1250	0.034 ±30%	250 min.	1210
LQH32CNR47M33	0.47 ±20%	1	1100	0.042 ±30%	150 min.	1210
LQH32CN1R0M33	1.0 ±20%	1	1000	0.06 ±30%	100 min.	1210
LQH32CN2R2M33	2.2 ±20%	1	790	0.097 ±30%	64 min.	1210
LQH32CN4R7M33	4.7 ±20%	1	650	0.15 ±30%	43 min.	1210
LQH32CN100K33	10 ±10%	1	450	0.3 ±30%	26 min.	1210

Operating Temp. Range : -25°C to 85°C

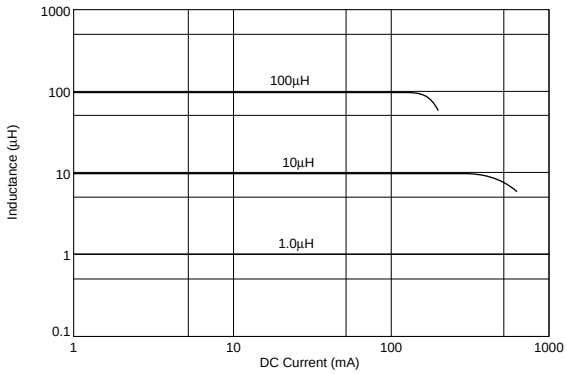
■ Impedance-Frequency Characteristics

LQH32C_23/_33



■ Inductance-Current Characteristics

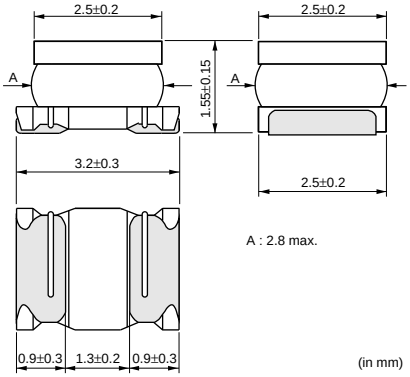
LQH32C_23/_33



9

LQH32C_53 Series (Low Profile Type)

LQH32C_53 series consists of miniature chip coils with low DC resistance, high current capacity, and high impedance characteristics. These features are made possible by the development of Murata's innovative winding techniques. They are excellent for use as choke coils in DC power supply circuits.



■ Features (LQH32C_53)

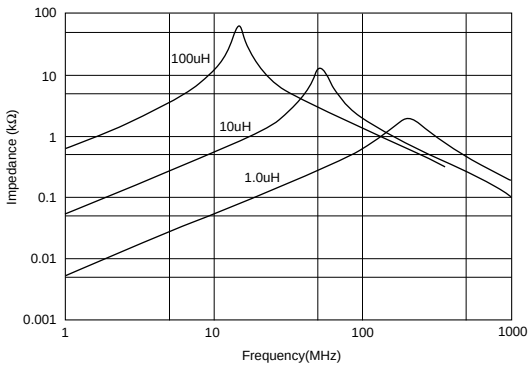
1. The series has a wide inductance range of 1.0 to 100 micro H.
2. The series exhibit low voltage drops and small variations in inductance with respect to temperature rise and DC current level. This makes them excellent for use as power supply line choke coils.
3. The series has excellent solder heat resistance. Both flow and reflow soldering methods can be employed.
4. LQH32C_53: Does not contain lead.

Part Number	Inductance (μH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Self Resonance Frequency (MHz)	EIA
LQH32CN1R0M53	1.0 ±20%	1	1000	0.060 ±30%	100 min.	1210
LQH32CN2R2M53	2.2 ±20%	1	790	0.097 ±30%	64 min.	1210
LQH32CN4R7M53	4.7 ±20%	1	650	0.15 ±30%	43 min.	1210
LQH32CN100K53	10 ±10%	1	450	0.30 ±30%	26 min.	1210
LQH32CN150K53	15 ±10%	1	300	0.58 ±30%	26 min.	1210
LQH32CN220K53	22 ±10%	1	250	0.71 ±30%	19 min.	1210
LQH32CN330K53	33 ±10%	1	200	1.1 ±30%	17 min.	1210
LQH32CN470K53	47 ±10%	1	170	1.3 ±30%	15 min.	1210
LQH32CN680K53	68 ±10%	1	130	2.2 ±30%	12 min.	1210
LQH32CN101K53	100 ±10%	1	100	3.5 ±30%	10 min.	1210

Operating Temp. Range : -25°C to 85°C

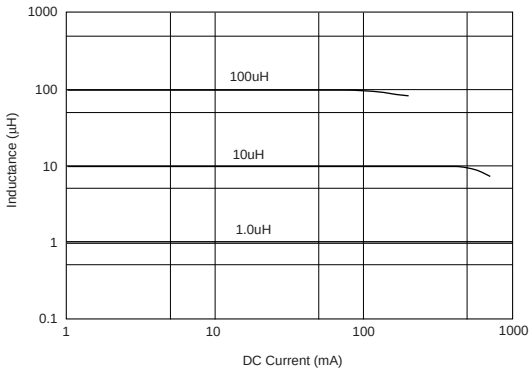
■ Impedance-Frequency Characteristics

LQH32C_53



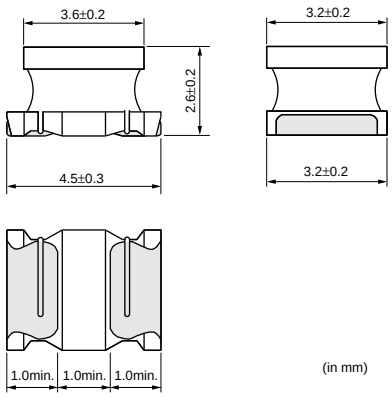
■ Inductance-Current Characteristics

LQH32C_53



LQH43C Series

LQH43C series consists of miniature chip inductors with low DC resistance, high current capacity, and high impedance characteristics. It is suitable for use as choke coils in DC power supply circuits.



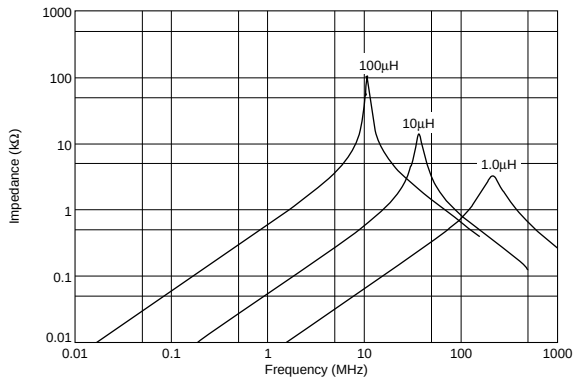
■ Features

1. Various inductance ranges are available.
2. The series exhibits low voltage drops and small change in inductance with respect to temperature rise and DC current level. This makes them excellent to use as power supply line choke coils.
3. Small size 4.5x3.2mm and realized low height 2.8mm max.
4. The series has excellent solder heat resistance. Both flow and reflow soldering methods can be employed.
5. LQH43C_03: Does not contain lead.

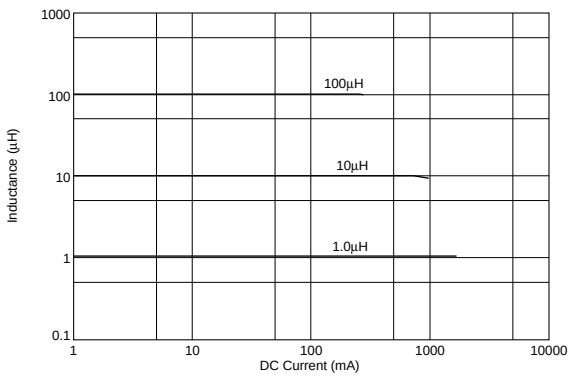
Part Number	Inductance (μH)	Test Frequency	Rated Current (mA)	DC Resistance (ohm)	Self Resonance Frequency (MHz)	EIA
LQH43CN1R0M03	1.0 ±20%	1MHz	1080	0.08 max.	100 min.	1812
LQH43CN1R5M03	1.5 ±20%	1MHz	1000	0.09 max.	85 min.	1812
LQH43CN2R2M03	2.2 ±20%	1MHz	900	0.11 max.	60 min.	1812
LQH43CN3R3M03	3.3 ±20%	1MHz	800	0.13 max.	47 min.	1812
LQH43CN4R7M03	4.7 ±20%	1MHz	750	0.15 max.	35 min.	1812
LQH43CN6R8M03	6.8 ±20%	1MHz	720	0.20 max.	30 min.	1812
LQH43CN100K03	10 ±10%	1MHz	650	0.24 max.	23 min.	1812
LQH43CN150K03	15 ±10%	1MHz	570	0.32 max.	20 min.	1812
LQH43CN220K03	22 ±10%	1MHz	420	0.6 max.	15 min.	1812
LQH43CN330K03	33 ±10%	1MHz	310	1.0 max.	12 min.	1812
LQH43CN470K03	47 ±10%	1MHz	280	1.1 max.	10 min.	1812
LQH43CN680K03	68 ±10%	1MHz	220	1.7 max.	8.4 min.	1812
LQH43CN101K03	100 ±10%	1MHz	190	2.2 max.	6.8 min.	1812
LQH43CN151K03	150 ±10%	1MHz	130	3.5 max.	5.5 min.	1812
LQH43CN221K03	220 ±10%	1MHz	110	4.0 max.	4.5 min.	1812
LQH43CN331K03	330 ±10%	1MHz	100	6.8 max.	3.6 min.	1812
LQH43CN471K03	470 ±10%	1kHz	90	8.5 max.	3.0 min.	1812

Operating Temp. Range : -25°C to 85°C

■ Impedance-Frequency Characteristics



■ Inductance-Current Characteristics



9

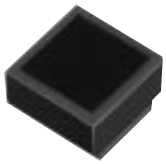
Chip Coils

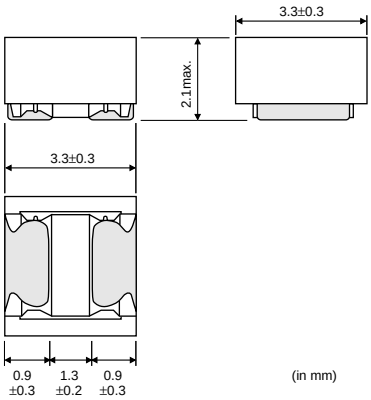
for Choke Magnetic Shielded Type LQH3KS Series

LQH3KS_23 Series

■ Features

1. Low profile dimension (2.1mm max.) and small size of 1212 (3.3x3.3mm) are suitable for portable equipment.
2. The series has low DC Resistance.
3. Large inductance of 560 to 2200 microH.
4. Magnetically shielded structure prevents interference occurring between peripheral components.
5. LQH3KS_23: Does not contain lead.

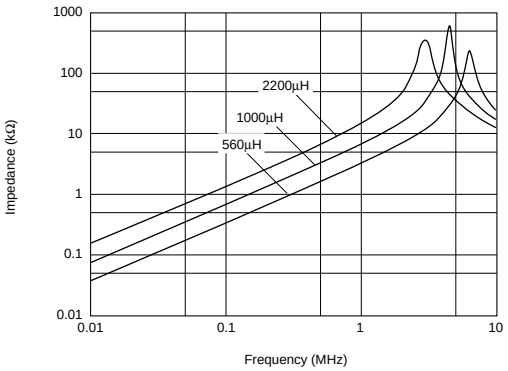




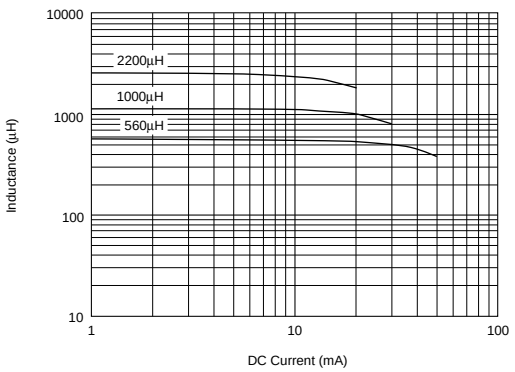
Part Number	Inductance (μH)	Test Frequency (kHz)	Rated Current (mA)	DC Resistance (ohm)	Self Resonance Frequency (MHz)	EIA
LQH3KSN561N23	560 ±30%	100	50	7.8 ±30%	3.0 min.	1212
LQH3KSN681N23	680 ±30%	100	40	9.1 ±30%	2.6 min.	1212
LQH3KSN102N23	1000 ±30%	10	30	11 ±30%	2.1 min.	1212
LQH3KSN152N23	1500 ±30%	10	25	23 ±30%	1.7 min.	1212
LQH3KSN222N23	2200 ±30%	10	20	28 ±30%	1.5 min.	1212

Operating Temp. Range : -25°C to 85°C

■ Impedance-Frequency Characteristics



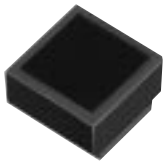
■ Inductance-Current Characteristics

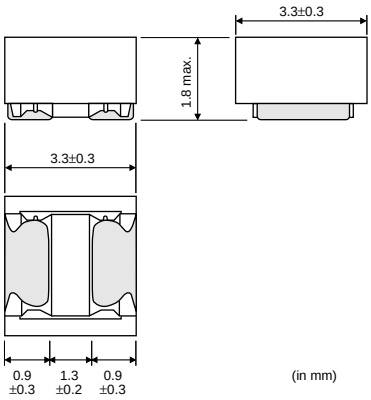


10

LQH3KS_53 Series (Low Profile Type)

LQH3KS_53 series consists of miniature chip inductors with high current capacity and low DC resistance. These features are achieved by Murata's innovative winding technology.





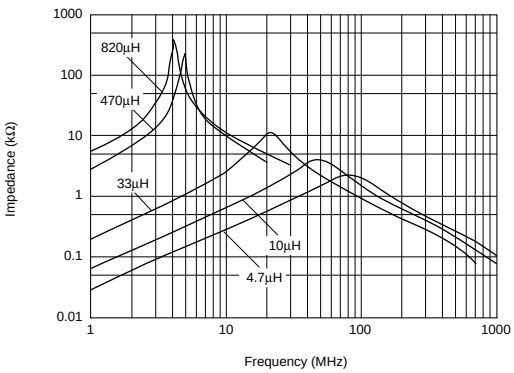
■ Features

1. Low profile (1.8mm max.) and small size (3.3x3.3mm)
2. The series has large inductance of 3.3 to 820 micro H.
3. Low DC resistance
4. Does not contain lead.

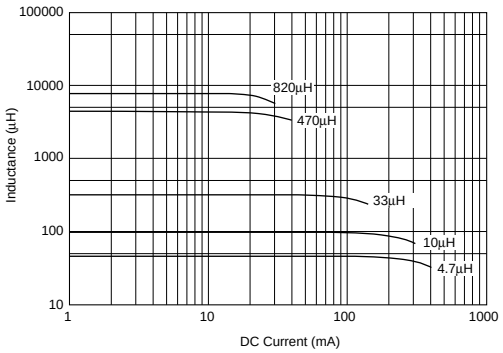
Part Number	Inductance (μH)	Test Frequency	Rated Current (mA)	DC Resistance (ohm)	Self Resonance Frequency (MHz)	EIA
LQH3KSN3R3N53	3.3 ±30%	1MHz	320	0.07 ±30%	50 min.	1212
LQH3KSN4R7N53	4.7 ±30%	1MHz	260	0.09 ±30%	42 min.	1212
LQH3KSN6R8N53	6.8 ±30%	1MHz	210	0.10 ±30%	35 min.	1212
LQH3KSN100M53	10 ±20%	1MHz	180	0.17 ±30%	28 min.	1212
LQH3KSN220M53	22 ±20%	1MHz	120	0.40 ±30%	19 min.	1212
LQH3KSN330M53	33 ±20%	1MHz	100	0.50 ±30%	16 min.	1212
LQH3KSN471M53	470 ±20%	100kHz	30	6.90 ±30%	4.2 min.	1212
LQH3KSN561M53	560 ±20%	100kHz	30	7.60 ±30%	3.8 min.	1212
LQH3KSN821M53	820 ±20%	100kHz	20	15.5 ±30%	3.2 min.	1212

Operating Temp. Range : -25°C to 85°C

■ Impedance-Frequency Characteristics



■ Inductance-Current Characteristics



10

Chip Coils

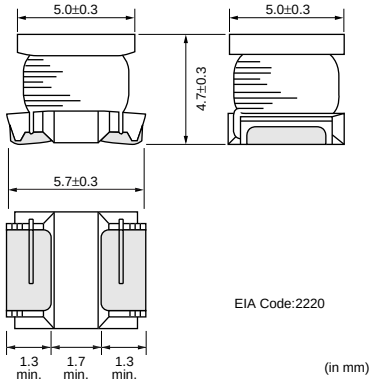
for Choke Winding/Magnetic Shielded Type LQH55D/LQH66S Series

LQH55D Series

LQH55D series are winding type coils for choke by using high performance thick wire winding technology.

■ Features

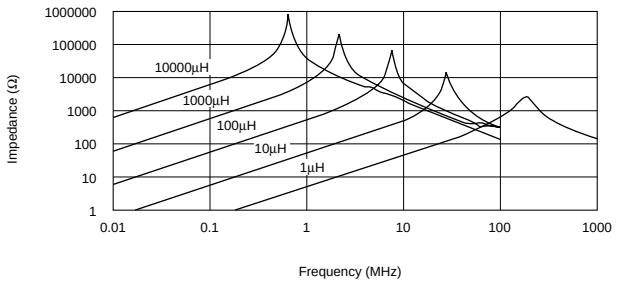
1. Low direct current resistance, large current capacity and large inductance
2. For DC/DC converters and DC power supply circuits
3. LQH55D_03: Does not contain lead



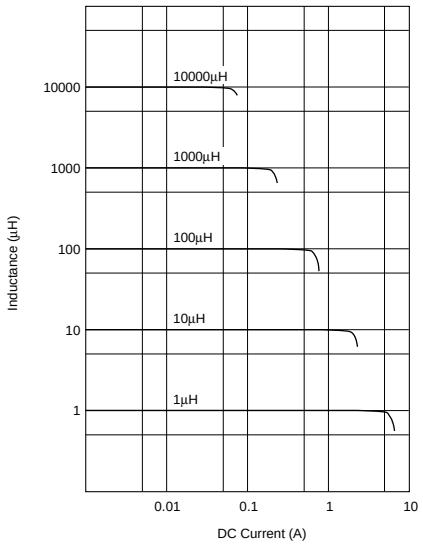
Part Number	Inductance (μH)	Test Frequency	Rated Current (mA)	DC Resistance (ohm)	Self Resonance Frequency (MHz)	EIA
LQH55DNR12M03	0.12 ±20%	1MHz	6000	0.007 ±40%	450 min.	2220
LQH55DNR27M03	0.27 ±20%	1MHz	5300	0.010 ±40%	300 min.	2220
LQH55DNR47M03	0.47 ±20%	1MHz	4800	0.013 ±40%	200 min.	2220
LQH55DN1R0M03	1.0 ±20%	1MHz	4000	0.019 ±40%	150 min.	2220
LQH55DN1R5M03	1.5 ±20%	1MHz	3700	0.022 ±40%	110 min.	2220
LQH55DN2R2M03	2.2 ±20%	1MHz	3200	0.029 ±40%	80 min.	2220
LQH55DN3R3M03	3.3 ±20%	1MHz	2900	0.036 ±40%	40 min.	2220
LQH55DN4R7M03	4.7 ±20%	1MHz	2700	0.041 ±40%	30 min.	2220
LQH55DN6R8M03	6.8 ±20%	1MHz	2000	0.074 ±40%	25 min.	2220
LQH55DN100M03	10 ±20%	1MHz	1700	0.093 ±40%	20 min.	2220
LQH55DN150M03	15 ±20%	1MHz	1400	0.15 ±40%	17 min.	2220
LQH55DN220M03	22 ±20%	1MHz	1200	0.19 ±40%	15 min.	2220
LQH55DN330M03	33 ±20%	1MHz	900	0.32 ±40%	12 min.	2220
LQH55DN470M03	47 ±20%	1MHz	800	0.40 ±40%	10 min.	2220
LQH55DN680M03	68 ±20%	1MHz	640	0.67 ±40%	7.6 min.	2220
LQH55DN101M03	100 ±20%	100kHz	560	0.86 ±40%	6.5 min.	2220
LQH55DN151M03	150 ±20%	100kHz	420	1.9 ±40%	5.0 min.	2220
LQH55DN221M03	220 ±20%	100kHz	320	2.4 ±40%	4.0 min.	2220
LQH55DN331M03	330 ±20%	100kHz	270	4.4 ±40%	3.1 min.	2220
LQH55DN471M03	470 ±20%	100kHz	240	5.4 ±40%	2.4 min.	2220
LQH55DN681M03	680 ±20%	100kHz	190	8.1 ±40%	1.9 min.	2220
LQH55DN102M03	1000 ±20%	10kHz	150	10.3 ±40%	1.7 min.	2220
LQH55DN222M03	2200 ±20%	10kHz	100	21.5 ±40%	1.2 min.	2220
LQH55DN472M03	4700 ±20%	10kHz	70	43.6 ±40%	0.8 min.	2220
LQH55DN103M03	10000 ±20%	10kHz	50	100 ±40%	0.5 min.	2220

Operating Temp. Range : -25°C to 80°C

■ Impedance-Frequency Characteristics



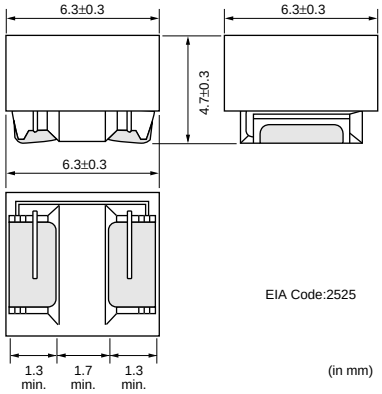
■ Inductance-Current Characteristics



11

LQH66S Series

LQH66S series are magnetic shielded type coils for choke by using high performance thick wire winding technology.



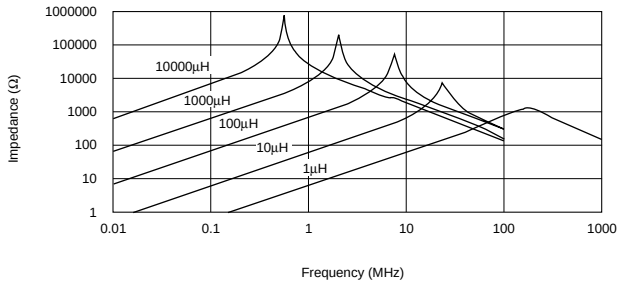
■ Features

1. Low direct current resistance, large current capacity and large inductance
2. High density mounting
3. For DC/DC converters and DC power supply circuits
4. LQH66S_03: Does not contain lead.

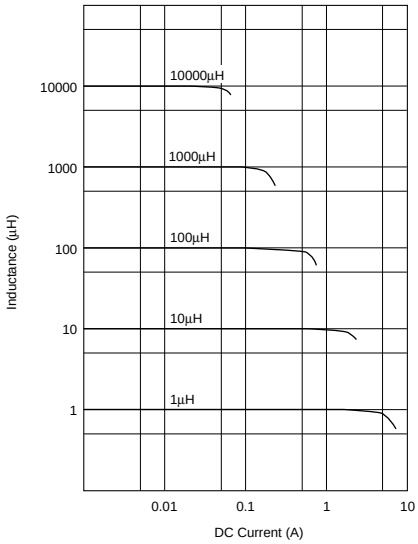
Part Number	Inductance (μH)	Test Frequency	Rated Current (mA)	DC Resistance (ohm)	Self Resonance Frequency (MHz)	EIA
LQH66SNR27M03	0.27 ±20%	1MHz	6000	0.007 ±40%	300 min.	2525
LQH66SNR68M03	0.68 ±20%	1MHz	5300	0.010 ±40%	180 min.	2525
LQH66SN1R0M03	1.0 ±20%	1MHz	4700	0.013 ±40%	150 min.	2525
LQH66SN1R5M03	1.5 ±20%	1MHz	3800	0.016 ±40%	110 min.	2525
LQH66SN2R2M03	2.2 ±20%	1MHz	3300	0.019 ±40%	80 min.	2525
LQH66SN3R3M03	3.3 ±20%	1MHz	2600	0.022 ±40%	40 min.	2525
LQH66SN4R7M03	4.7 ±20%	1MHz	2200	0.025 ±40%	30 min.	2525
LQH66SN6R8M03	6.8 ±20%	1MHz	1800	0.029 ±40%	25 min.	2525
LQH66SN100M03	10 ±20%	1MHz	1600	0.036 ±40%	20 min.	2525
LQH66SN150M03	15 ±20%	1MHz	1300	0.069 ±40%	17 min.	2525
LQH66SN220M03	22 ±20%	1MHz	1100	0.087 ±40%	15 min.	2525
LQH66SN330M03	33 ±20%	1MHz	860	0.14 ±40%	12 min.	2525
LQH66SN470M03	47 ±20%	1MHz	760	0.17 ±40%	10 min.	2525
LQH66SN680M03	68 ±20%	1MHz	600	0.29 ±40%	7.6 min.	2525
LQH66SN101M03	100 ±20%	100kHz	520	0.36 ±40%	6.5 min.	2525
LQH66SN151M03	150 ±20%	100kHz	420	0.63 ±40%	5.0 min.	2525
LQH66SN221M03	220 ±20%	100kHz	350	0.79 ±40%	4.0 min.	2525
LQH66SN331M03	330 ±20%	100kHz	280	1.8 ±40%	3.2 min.	2525
LQH66SN471M03	470 ±20%	100kHz	240	2.2 ±40%	2.5 min.	2525
LQH66SN681M03	680 ±20%	100kHz	200	3.9 ±40%	2.0 min.	2525
LQH66SN102M03	1000 ±20%	10kHz	160	4.9 ±40%	1.7 min.	2525
LQH66SN222M03	2200 ±20%	10kHz	100	9.4 ±40%	1.2 min.	2525
LQH66SN472M03	4700 ±20%	10kHz	70	19.5 ±40%	0.8 min.	2525
LQH66SN103M03	10000 ±20%	10kHz	50	39.7 ±40%	0.5 min.	2525

Operating Temp. Range : -25°C to 80°C

■ Impedance-Frequency Characteristics



■ Inductance-Current Characteristics



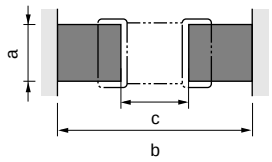
Notice (Soldering and Mounting)

1. Standard Land Dimensions

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

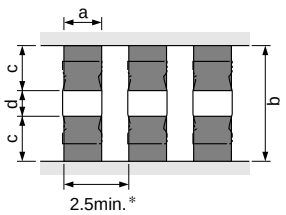
Land Pattern
Solder Resist
(in mm)

Series: LQG15H, LQG18H, LQM18N, LQM21N/21D/21F, LQM31F, LQP03T, LQP15M/15T, LQP18M



Part Number		a	b	c
LQG15H		0.5-0.6	1.4-1.5	0.4
LQG18H		0.6-0.8	1.8-2.2	0.6-0.8
LQM18N	Flow	0.7	2.2-2.6	0.7
	Reflow		1.8-2.0	
LQM21N/21D/21F		1.0	3.0-4.0	1.2
LQM31F		1.2	4.2-5.2	2.0
LQP03T		0.2-0.3	0.8-0.9	0.2-0.3
LQP15M/15T		0.5-0.6	1.4-1.5	0.4
LQP18M		0.7-0.9	1.8-2.2	0.6-0.8

Series: LQW15A, LQW18A, LQW2BH, LQW31H, LQH31M/31C/31H

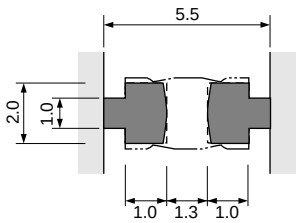


* 2.0 min. (LQW15A/18A)

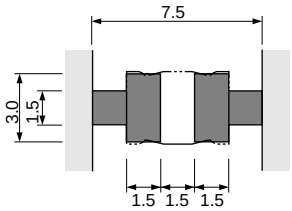
Part Number	a	b	c	d
LQH31M/31C/31H LQW31H	1.5	4.5	1.75	1.0
LQW2BH	1.2	3.0	1.1	0.8
LQW18A	0.7-1.0	1.8-2.0	0.6-0.7	0.6-0.8
LQW15A	0.65	1.2	0.35	0.50

If mounted at 2.5 (2.0) mm intervals as indicated in the diagram, attention should be paid to potential magnetic coupling effects when using the coil as a resonator.

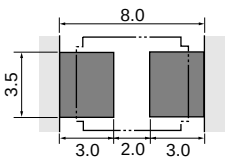
Series: LQH32M, LQH32C, LQH3KS



Series: LQH43M, LQH43N, LQH43C



Series: LQH55D, LQH66S



Continued on the following page.

Notice (Soldering and Mounting)

Continued from the preceding page.

2. Standard Soldering Conditions

(1) Soldering method

Chip coils can be flow or reflow soldered.
Please contact Murata regarding other soldering methods.
As for LQG, LQP, LQW15A/18A, LQH3KS/55D/66S series, please use reflow soldering.

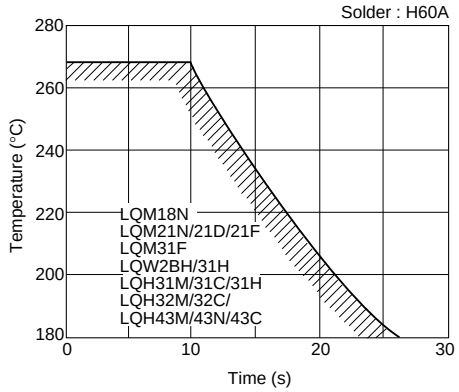
(2) Soldering Temperature and Time

Solder within the temperature and time combinations indicated by the slanted lines in the following graphs. If soldering is repeated, please note that the allowed time is the accumulated time.

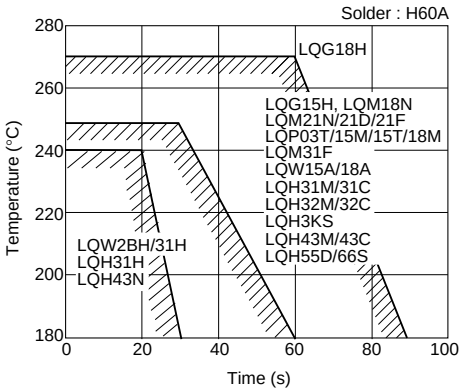
Solder : Use H60A, H63A(JIS Z 3282) or equivalent.
Use solder paste equivalent to H60A for LQP03T/15M/15T/18M and LQG15H/18H.

Flux : Use rosin-based flux, but not strongly acidic flux (with chlorine content exceeding 0.2wt%).
Do not use water-soluble flux.

Allowable Flow Soldering Temperature and Time

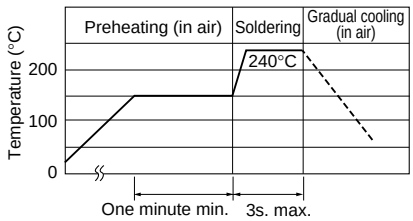


Allowable Reflow Soldering Temperature and Time

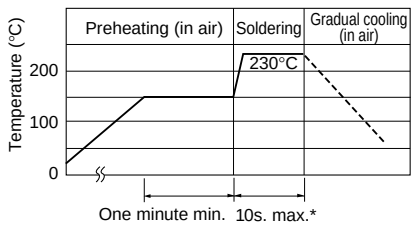


(3) Standard Soldering Conditions

Flow Soldering



Reflow Soldering



∗LQG, LQP : 20s. max.

Continued on the following page.

Notice (Soldering and Mounting)

Continued from the preceding page.

(4) Reworking with Soldering Iron

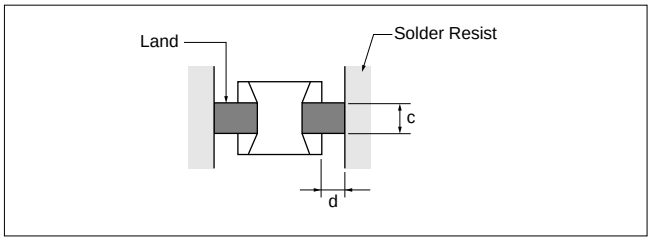
Preheating at 150°C for 1 minute is required. Do not directly touch the ceramic element with the tip of the soldering iron. The reworking soldering conditions are as follows:

Soldering iron power output	: 30W max.
Temperature of soldering iron tip	: 280°C
Diameter of soldering iron end	: 3.0mm max.
Soldering time	: within 3 s

3. Mounting Instructions

(1) Land Pattern Dimensions

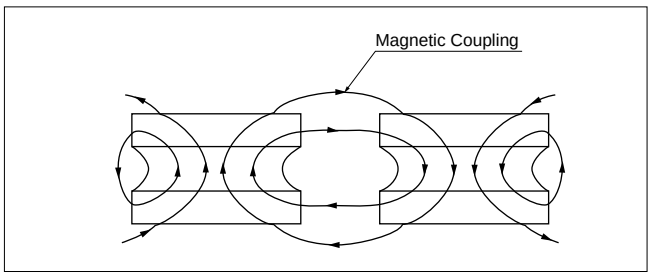
Large lands reduce Q of the mounted chip. Also, large protruding land areas (bordered by lines having dimensions 'c' and 'd' shown below) cause floating and electrode leaching.



(2) Magnetic Coupling

Since some chip coils are constructed like an open magnetic circuit, narrow spacing between coils may cause magnetic coupling.

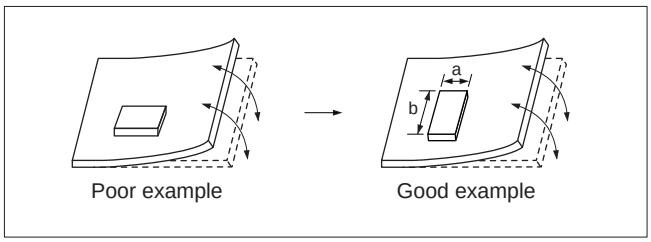
The LQG and LQM LQH3KS/66S series have a magnetically shielded structure. The structure makes their coupling coefficient smaller than that of conventional chip coils.



(3) PCB Warping

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

Products should be located in the sideways direction (Length:a<b) to the mechanical stress.



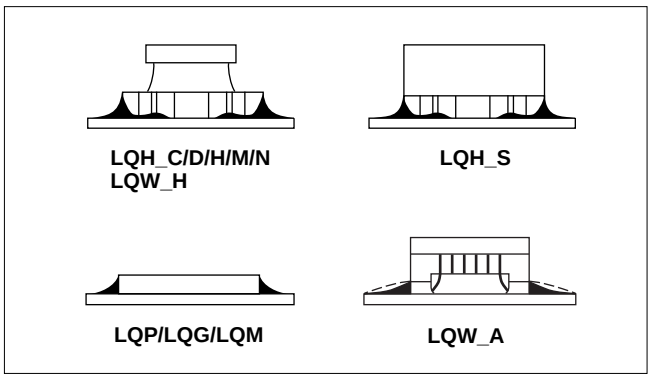
(4) Amount of Solder Paste

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

● Standard thickness of solder paste

LQP/LQG/LQM/LQW_A : 100 to 150µm

LQH/LQW_H : 200 to 300µm



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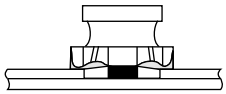
Notice (Soldering and Mounting)

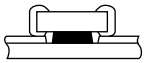
Continued from the preceding page.

(5) Amount of Adhesive

If too much adhesive is applied, then it may overflow into the land or termination areas and yield poor solderability. In contrast, if insufficient adhesive is applied, or if the adhesive is not sufficiently hardened, then the chip may become detached during flow soldering. Apply the adhesive in accordance with the following conditions:



LQH_C/H/M/N
LQW_H



LQP/LQG/LQM

Part Number	Typical Application Amount (in:mg)	
	MR-8153RA	NF-3000
LQM18N	0.05-0.06	0.06-0.07
LQM21N/21D/21F	0.15-0.20	0.20-.025
LQM31F	0.20-0.25	0.25-0.30
LQW2BH	0.116-0.18	–
LQH31M/31C/31H **LQW31H**	0.18-0.20	0.20-0.25
LQH32M/32C	0.20-0.23	0.27-0.35
LQH43M(N) **LQH43C**	0.45-0.50	0.60-0.80

4. Cleaning

The following conditions should be observed when cleaning 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
- Surface active agent (Clean Thru 750H)
- High grade alcohol (Pine Alpha ST-100S)
- Hydrocarbon (Techno Cleaner 375)
- Alkaline Saponifier (Aqua Cleaner 210SEI-cleaner should be diluted to 15% using deionized water.)

LQH_S series : Aqueous agents should not be used because they may cause quality deterioration.
LQH series : Surface active agent and high grade alcohol can be used.

(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.

Notice

■ Notice (Storage and Operating Conditions)

< Operating Environment >

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

< Storage Requirements >

1. Storage Period
   LQG/LQM series should be used within 6 months; the other products should be used within 12 months. Solderability should be checked if this period is exceeded.
2. Storage conditions
   (1) Store products in a warehouse in compliance with the following conditions :
   Temperature : -10 to 40 degree C.
   Humidity : 30 to 70% (relative humidity)
   Do not subject products to rapid changes in temperature and humidity.
   Do not store them in chemical atmospheres such as one containing sulfurous acid gas or alkaline gas.
   This will prevent electrode oxidation which causes poor solderability and possible corrosion of coils.
   (2) Do not store products in bulk packaging to prevent collision among coils 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.

■ Notice (Handling)

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

LQW_A series

- To prevent breaking the wire, avoid touching sharp material, such as tweezers, to the winding 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, support pin pushes up the components from the bottom of base tape. In this case, please remove the support pin. The support pin may damage the components and break wire.

LQH_C/D/H/M/N, LQW_H series

- To prevent breaking the wire, avoid touching sharp material, such as tweezers, to the winding portion.
- To prevent breaking the core, avoid applying excessive mechanical shock to products mounted on the board.

LQP series

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

LQM series

- There is the possibility that magnetism may change the inductance value. Do not use a magnet or tweezers with magnetism when handling chip coils. (The tip of the tweezers should be molded with resin or pottery.)

< Handling >

1. Avoid applying excessive stress to products to prevent damage.
2. Do not touch winding with sharp objects such as tweezers to prevent wire breakage.
3. Do not apply excessive force to products mounted on boards to prevent core breakage.

< Transportations >

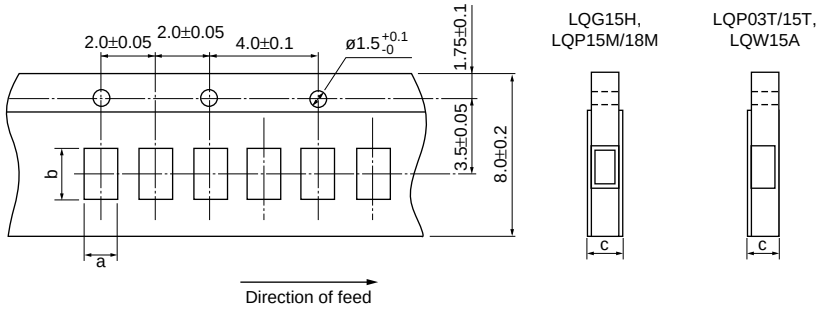
Do not apply excessive vibration or mechanical shock to products.

< 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.

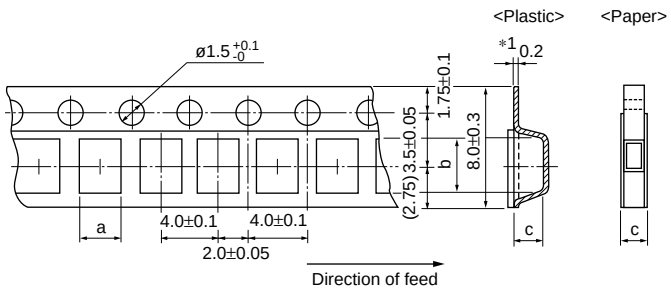
Packaging

■ Minimum Quantity and 8mm Width Taping Dimension



Paper Tape

Part Number	Dimensions (in mm)			Minimum QTY. (pcs.)		
	a	b	c	ø180mm reel	ø330mm reel	Bulk
LQG15H	0.62	1.12	1.0 max.	10000	50000	1000
LQP03T	0.38	0.68				500
LQP15T	0.62	1.12			-	
LQP15M	0.70	1.20			50000	
LQP18M	1.19	2.0		4000	10000	
LQW15A	0.64/0.66 0.69	1.18	0.8 max.	10000	-	



Paper Tape

Part Number	Dimensions (in mm)			Minimum QTY. (pcs.)		
	a	b	c	ø180mm reel	ø330mm reel	Bulk
LQM21N (0.1-2.2µH)	1.45	2.25	1.1 max.	4000	10000	1000
LQM21D (1-10µH)						
LQM21F (1-2.2µH)						
LQG18H	1.05	1.85				
LQM18N						
LQW18A	1.00	1.80				500
LQW18A_10	1.1	1.90				

Plastic Tape

Part Number	Dimensions (in mm)			Minimum QTY. (pcs.)		
	a	b	c	ø180mm reel	ø330mm reel	Bulk
LQM21N (2.7-4.7µH)	1.45	2.25	1.3	3000	10000	1000
LQM21D (22-47µH)						
LQM21F (4.7-47µH)						
LQM31F	1.9	3.5	1.3			
LQH31M/31C/31H, LQW31H	1.9	3.6	2.0	2000	7500	-
LQW2BH	1.75	2.3				
LQH32M, LQH32C_33/_23	2.9	3.6	2.1			
LQH32C_53			1.7			

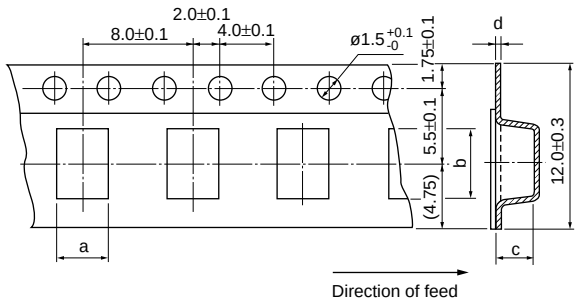
(in mm)

Continued on the following page.

Packaging

Continued from the preceding page.

■ Minimum Quantity and 12mm Width Plastic Taping Dimension



Plastic Tape

Part Number	Dimensions (in mm)				Minimum QTY. (pcs.)	
	a	b	c	d	ø180mm reel	ø330mm reel
LQH3KS	3.9	3.7	1.9	0.3	1000	4000
LQH43M(N)	3.6	4.9	2.7		500	2500
LQH43C						-
LQH55D	5.4	6.1	5.0	0.4	350	1500
LQH66S	6.7	6.7	5.6			-

(in mm)

Design Kits

●EKLMQG15A (High-frequency Monolithic Type)

No.	Part Number	Quantity (pcs.)	Inductance		Q min.	DC Resistance (Ω) max.	Rated Current (mA)
			Nominal	Tolerance			
1	**LQG15HN1N0S02**	20	1.0nH	±0.3nH	8	0.10	300
2	**LQG15HN1N1S02**	20	1.1nH	±0.3nH	8	0.10	300
3	**LQG15HN1N2S02**	20	1.2nH	±0.3nH	8	0.10	300
4	**LQG15HN1N3S02**	20	1.3nH	±0.3nH	8	0.10	300
5	**LQG15HN1N5S02**	20	1.5nH	±0.3nH	8	0.10	300
6	**LQG15HN1N6S02**	20	1.6nH	±0.3nH	8	0.10	300
7	**LQG15HN1N8S02**	20	1.8nH	±0.3nH	8	0.10	300
8	**LQG15HN2N0S02**	20	2.0nH	±0.3nH	8	0.12	300
9	**LQG15HN2N2S02**	20	2.2nH	±0.3nH	8	0.15	300
10	**LQG15HN2N4S02**	20	2.4nH	±0.3nH	8	0.16	300
11	**LQG15HN2N7S02**	20	2.7nH	±0.3nH	8	0.17	300
12	**LQG15HN3N0S02**	20	3.0nH	±0.3nH	8	0.18	300
13	**LQG15HN3N3S02**	20	3.3nH	±0.3nH	8	0.19	300
14	**LQG15HN3N6S02**	20	3.6nH	±0.3nH	8	0.19	300
15	**LQG15HN3N9S02**	20	3.9nH	±0.3nH	8	0.19	300
16	**LQG15HN4N3S02**	20	4.3nH	±0.3nH	8	0.21	300
17	**LQG15HN4N7S02**	20	4.7nH	±0.3nH	8	0.23	300
18	**LQG15HN5N1S02**	20	5.1nH	±0.3nH	8	0.24	300
19	**LQG15HN5N6S02**	20	5.6nH	±0.3nH	8	0.26	300
20	**LQG15HN6N2S02**	20	6.2nH	±0.3nH	8	0.27	300
21	**LQG15HN6N8J02**	20	6.8nH	±5%	8	0.29	300
22	**LQG15HN7N5J02**	20	7.5nH	±5%	8	0.31	300
23	**LQG15HN8N2J02**	20	8.2nH	±5%	8	0.33	300
24	**LQG15HN9N1J02**	20	9.1nH	±5%	8	0.34	300
25	**LQG15HN10NJ02**	20	10nH	±5%	8	0.35	300
26	**LQG15HN12NJ02**	20	12nH	±5%	8	0.41	300
27	**LQG15HN15NJ02**	20	15nH	±5%	8	0.46	300
28	**LQG15HN18NJ02**	20	18nH	±5%	8	0.51	300
29	**LQG15HN22NJ02**	20	22nH	±5%	8	0.58	300
30	**LQG15HN27NJ02**	20	27nH	±5%	8	0.67	300
31	**LQG15HN33NJ02**	20	33nH	±5%	8	0.67	200
32	**LQG15HN39NJ02**	20	39nH	±5%	8	1.06	200
33	**LQG15HN47NJ02**	20	47nH	±5%	8	1.15	200
34	**LQG15HN56NJ02**	20	56nH	±5%	8	1.20	200
35	**LQG15HN68NJ02**	20	68nH	±5%	8	1.25	180
36	**LQG15HN82NJ02**	20	82nH	±5%	8	1.60	150
37	**LQG15HNR10J02**	20	100nH	±5%	8	1.60	150
38	**LQG15HNR12J02**	20	120nH	±5%	8	1.60	150

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Design Kits

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●EKLMQG18A (High-frequency Monolithic Type)

No.	Part Number	Quantity (pcs.)	Inductance		Q min.	DC Resistance (Ω) max.	Rated Current (mA)
			Nominal	Tolerance			
1	**LQG18HN1N2S00**	20	1.2nH	±0.3nH	12	0.10	300
2	**LQG18HN1N5S00**	20	1.5nH	±0.3nH	12	0.10	300
3	**LQG18HN1N8S00**	20	1.8nH	±0.3nH	12	0.10	300
4	**LQG18HN2N2S00**	20	2.2nH	±0.3nH	12	0.10	300
5	**LQG18HN2N7S00**	20	2.7nH	±0.3nH	12	0.15	300
6	**LQG18HN3N3S00**	20	3.3nH	±0.3nH	12	0.15	300
7	**LQG18HN3N9S00**	20	3.9nH	±0.3nH	12	0.15	300
8	**LQG18HN4N7S00**	20	4.7nH	±0.3nH	12	0.20	300
9	**LQG18HN5N6S00**	20	5.6nH	±0.3nH	12	0.20	300
10	**LQG18HN6N8J00**	20	6.8nH	±5%	12	0.25	300
11	**LQG18HN8N2J00**	20	8.2nH	±5%	12	0.25	300
12	**LQG18HN10NJ00**	20	10nH	±5%	12	0.30	300
13	**LQG18HN12NJ00**	20	12nH	±5%	12	0.35	300
14	**LQG18HN15NJ00**	20	15nH	±5%	12	0.40	300
15	**LQG18HN18NJ00**	20	18nH	±5%	12	0.45	300
16	**LQG18HN22NJ00**	20	22nH	±5%	12	0.50	300
17	**LQG18HN27NJ00**	20	27nH	±5%	12	0.55	300
18	**LQG18HN33NJ00**	20	33nH	±5%	12	0.60	300
19	**LQG18HN39NJ00**	20	39nH	±5%	12	0.65	300
20	**LQG18HN47NJ00**	20	47nH	±5%	12	0.70	300
21	**LQG18HN56NJ00**	20	56nH	±5%	12	0.75	300
22	**LQG18HN68NJ00**	20	68nH	±5%	12	0.80	300
23	**LQG18HN82NJ00**	20	82nH	±5%	12	0.85	300
24	**LQG18HNR10J00**	20	100nH	±5%	12	0.90	300

●EKLMQP03B (High-frequency Film Type)

No.	Part Number	Quantity (pcs.)	Inductance		Q min.	DC Resistance (Ω) max.	Rated Current (mA)
			Nominal	Tolerance			
1	**LQP03TN0N6C00**	20	0.6nH	±0.2nH	11	0.08	420
2	**LQP03TN0N8C00**	20	0.8nH	±0.2nH	11	0.09	410
3	**LQP03TN1N0C00**	20	1.0nH	±0.2nH	11	0.10	400
4	**LQP03TN1N2C00**	20	1.2nH	±0.2nH	11	0.13	280
5	**LQP03TN1N5C00**	20	1.5nH	±0.2nH	11	0.16	280
6	**LQP03TN1N8C00**	20	1.8nH	±0.2nH	11	0.16	280
7	**LQP03TN2N2C00**	20	2.2nH	±0.2nH	11	0.18	220
8	**LQP03TN2N7C00**	20	2.7nH	±0.2nH	11	0.21	220
9	**LQP03TN3N3C00**	20	3.3nH	±0.2nH	11	0.30	190
10	**LQP03TN3N9C00**	20	3.9nH	±0.2nH	11	0.45	170
11	**LQP03TN4N7J00**	20	4.7nH	±5%	11	0.55	160
12	**LQP03TN5N6J00**	20	5.6nH	±5%	11	0.68	140
13	**LQP03TN6N8J00**	20	6.8nH	±5%	11	0.75	130
14	**LQP03TN8N2J00**	20	8.2nH	±5%	11	0.86	110
15	**LQP03TN10NJ00**	20	10nH	±5%	11	1.10	100
16	**LQP03TN12NJ00**	20	12nH	±5%	11	1.25	90
17	**LQP03TN15NJ00**	20	15nH	±5%	11	1.50	90
18	**LQP03TN18HJ00**	20	18nH	±3%	11	2.00	80
19	**LQP03TN22HJ00**	20	22nH	±3%	11	2.60	70
20	**LQP03TN27HJ00**	20	27nH	±3%	11	3.10	70

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●EKLMQP15A (High-frequency Film Type)

No.	Part Number	Quantity (pcs.)	Inductance		Q min.	DC Resistance (Ω) max.	Rated Current (mA)
			Nominal	Tolerance			
1	**LQP15MN1N0B02**	20	1.0nH	0.1nH	13	0.1	400
2	**LQP15MN1N1B02**	20	1.1nH	0.1nH	13	0.1	390
3	**LQP15MN1N2B02**	20	1.2nH	0.1nH	13	0.1	390
4	**LQP15MN1N3B02**	20	1.3nH	0.1nH	13	0.2	280
5	**LQP15MN1N5B02**	20	1.5nH	0.1nH	13	0.2	280
6	**LQP15MN1N6B02**	20	1.6nH	0.1nH	13	0.3	220
7	**LQP15MN1N8B02**	20	1.8nH	0.1nH	13	0.2	280
8	**LQP15MN2N0B02**	20	2.0nH	0.1nH	13	0.3	220
9	**LQP15MN2N2B02**	20	2.2nH	0.1nH	13	0.3	220
10	**LQP15MN2N4B02**	20	2.4nH	0.1nH	13	0.3	220
11	**LQP15MN2N7B02**	20	2.7nH	0.1nH	13	0.3	220
12	**LQP15MN3N0B02**	20	3.0nH	0.1nH	13	0.4	190
13	**LQP15MN3N3B02**	20	3.3nH	0.1nH	13	0.4	190
14	**LQP15MN3N6B02**	20	3.6nH	0.1nH	13	0.5	170
15	**LQP15MN3N9B02**	20	3.9nH	0.1nH	13	0.5	170
16	**LQP15MN4N3B02**	20	4.3nH	0.1nH	13	0.6	160
17	**LQP15MN4N7B02**	20	4.7nH	0.1nH	13	0.6	160
18	**LQP15MN5N1B02**	20	5.1nH	±0.1nH	13	0.7	140
19	**LQP15MN5N6B02**	20	5.6nH	±0.1nH	13	0.7	140
20	**LQP15MN6N2B02**	20	6.2nH	±0.1nH	13	0.9	130
21	**LQP15MN6N8B02**	20	6.8nH	±0.1nH	13	0.9	130
22	**LQP15MN7N5B02**	20	7.5nH	±0.1nH	13	1.1	110
23	**LQP15MN8N2B02**	20	8.2nH	±0.1nH	13	1.1	110
24	**LQP15MN9N1B02**	20	9.1nH	±0.1nH	13	1.3	100
25	**LQP15MN10NG02**	20	10nH	±2%	13	1.3	100
26	**LQP15MN12NG02**	20	12nH	±2%	13	1.6	90
27	**LQP15MN15NG02**	20	15nH	±2%	13	1.8	90
28	**LQP15MN18NG02**	20	18nH	±2%	13	2.0	80
29	**LQP15MN22NG02**	20	22nH	±2%	13	2.6	70
30	**LQP15MN27NG02**	20	27nH	±2%	13	3.1	70
31	**LQP15MN33NG02**	20	33nH	±2%	13	3.8	60

●EKLMQW15B (High-frequency Winding Type)

No.	Part Number	Quantity (pcs.)	Inductance		Q min.	DC Resistance (Ω) max.	Rated Current (mA)
			Nominal	Tolerance			
1	**LQW15AN1N5C00**	20	1.5nH	±0.2nH	10	0.03	1000
2	**LQW15AN2N7C00**	20	2.7nH	±0.2nH	20	0.05	850
3	**LQW15AN4N3C00**	20	4.3nH	±0.2nH	25	0.07	750
4	**LQW15AN4N7C00**	20	4.7nH	±0.2nH	25	0.07	750
5	**LQW15AN5N1C00**	20	5.1nH	±0.2nH	25	0.12	600
6	**LQW15AN6N2C00**	20	6.2nH	±0.2nH	25	0.09	700
7	**LQW15AN6N8H00**	20	6.8nH	±3%	25	0.09	700
8	**LQW15AN7N5H00**	20	7.5nH	±3%	25	0.13	570
9	**LQW15AN9N1H00**	20	9.1nH	±3%	25	0.14	540
10	**LQW15AN10NH00**	20	10nH	±3%	25	0.17	500
11	**LQW15AN12NH00**	20	12nH	±3%	30	0.14	500
12	**LQW15AN15NH00**	20	15nH	±3%	30	0.16	460
13	**LQW15AN18NH00**	20	18nH	±3%	25	0.27	370
14	**LQW15AN22NH00**	20	22nH	±3%	25	0.30	310
15	**LQW15AN27NH00**	20	27nH	±3%	25	0.52	280

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No.	Part Number	Quantity (pcs.)	Inductance		Q min.	DC Resistance (Ω) max.	Rated Current (mA)
			Nominal	Tolerance			
16	**LQW15AN33NH00**	20	33nH	±3%	25	0.63	260
17	**LQW15AN39NH00**	20	39nH	±3%	25	0.70	250
18	**LQW15AN47NH00**	20	47nH	±3%	25	1.08	210
19	**LQW15AN56NH00**	20	56nH	±3%	25	1.17	200
20	**LQW15AN68NJ00**	20	68nH	±5%	20	1.96	140
21	**LQW15AN82NJ00**	20	82nH	±5%	20	2.24	130

●EKLMQ18GA (High-frequency Winding Type)

No.	Part Number	Quantity (pcs.)	Inductance		Q min.	DC Resistance (Ω) max.	Rated Current (mA)
			Nominal	Tolerance			
1	**LQW18AN3N6C00**	20	3.6nH	±0.2nH	25	0.059	850
2	**LQW18AN3N9C00**	20	3.9nH	±0.2nH	35	0.059	850
3	**LQW18AN4N3C00**	20	4.3nH	±0.2nH	35	0.059	850
4	**LQW18AN5N6C00**	20	5.6nH	±0.2nH	35	0.082	750
5	**LQW18AN6N2C00**	20	6.2nH	±0.2nH	35	0.082	750
6	**LQW18AN6N8C00**	20	6.8nH	±0.2nH	35	0.082	750
7	**LQW18AN10NG00**	20	10nH	±2%	35	0.11	650
8	**LQW18AN11NG00**	20	11nH	±2%	35	0.11	650
9	**LQW18AN12NG00**	20	12nH	±2%	35	0.13	600
10	**LQW18AN13NG00**	20	13nH	±2%	35	0.13	600
11	**LQW18AN15NG00**	20	15nH	±2%	40	0.13	600
12	**LQW18AN16NG00**	20	16nH	±2%	40	0.16	550
13	**LQW18AN18NG00**	20	18nH	±2%	40	0.16	550
14	**LQW18AN20NG00**	20	20nH	±2%	40	0.16	550
15	**LQW18AN22NG00**	20	22nH	±2%	40	0.17	500
16	**LQW18AN24NG00**	20	24nH	±2%	40	0.21	500
17	**LQW18AN27NG00**	20	27nH	±2%	40	0.21	440
18	**LQW18AN30NG00**	20	30nH	±2%	40	0.23	420
19	**LQW18AN33NG00**	20	33nH	±2%	40	0.23	420
20	**LQW18AN36NG00**	20	36nH	±2%	40	0.26	400
21	**LQW18AN39NG00**	20	39nH	±2%	40	0.26	400
22	**LQW18AN43NG00**	20	43nH	±2%	40	0.29	380
23	**LQW18AN47NG00**	20	47nH	±2%	38	0.29	380
24	**LQW18AN51NG00**	20	51nH	±2%	38	0.33	370
25	**LQW18AN56NG00**	20	56nH	±2%	38	0.35	360
26	**LQW18AN62NG00**	20	62nH	±2%	38	0.51	280
27	**LQW18AN68NG00**	20	68nH	±2%	38	0.38	340
28	**LQW18AN72NG00**	20	72nH	±2%	34	0.56	270
29	**LQW18AN75NG00**	20	75nH	±2%	34	0.56	270
30	**LQW18AN82NG00**	20	82nH	±2%	34	0.60	250
31	**LQW18AN91NG00**	20	91nH	±2%	34	0.64	230
32	**LQW18ANR10G00**	20	100nH	±2%	34	0.68	220
33	**LQW18ANR11G00**	20	110nH	±2%	32	1.2	200
34	**LQW18ANR12G00**	20	120nH	±2%	32	1.3	180
35	**LQW18ANR13G00**	20	130nH	±2%	32	1.4	170
36	**LQW18ANR15G00**	20	150nH	±2%	32	1.5	160
37	**LQW18ANR16G00**	20	160nH	±2%	32	2.1	150
38	**LQW18ANR18G00**	20	180nH	±2%	25	2.2	140
39	**LQW18ANR20G00**	20	200nH	±2%	25	2.4	120
40	**LQW18ANR22G00**	20	220nH	±2%	25	2.5	120
41	**LQW18ANR27G00**	20	270nH	±2%	30	3.4	110
42	**LQW18ANR33G00**	20	330nH	±2%	30	5.5	85

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Design Kits

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No.	Part Number	Quantity (pcs.)	Inductance		Q min.	DC Resistance (Ω) max.	Rated Current (mA)
			Nominal	Tolerance			
43	**LQW18ANR39G00**	20	390nH	±2%	30	6.2	80
44	**LQW18ANR47G00**	20	470nH	±2%	30	7.0	75
45	**LQW18AN3N9C10**	20	3.9nH	±0.2nH	38	0.032	1000
46	**LQW18AN6N8C10**	20	6.8nH	±0.2nH	38	0.045	900
47	**LQW18AN10NG10**	20	10nH	±2%	38	0.058	800
48	**LQW18AN12NG10**	20	12nH	±2%	38	0.071	750
49	**LQW18AN18NG10**	20	18nH	±2%	42	0.085	700
50	**LQW18AN22NG10**	20	22nH	±2%	42	0.099	640
51	**LQW18AN27NG10**	20	27nH	±2%	42	0.116	590

●EKLMQ18JA (High-frequency Winding Type)

No.	Part Number	Quantity (pcs.)	Inductance		Q min.	DC Resistance (Ω) max.	Rated Current (mA)
			Nominal	Tolerance			
1	**LQW18AN2N2D10**	20	2.2nH	±0.5nH	25	0.018	1400
2	**LQW18AN3N6D00**	20	3.6nH	±0.5nH	25	0.059	850
3	**LQW18AN3N9D10**	20	3.9nH	±0.5nH	38	0.032	1000
4	**LQW18AN4N3D00**	20	4.3nH	±0.5nH	35	0.059	850
5	**LQW18AN4N7D00**	20	4.7nH	±0.5nH	35	0.059	850
6	**LQW18AN5N6D10**	20	5.6nH	±0.5nH	38	0.045	900
7	**LQW18AN6N2D00**	20	6.2nH	±0.5nH	35	0.082	750
8	**LQW18AN6N8D10**	20	6.8nH	±0.5nH	38	0.045	900
9	**LQW18AN7N5D00**	20	7.5nH	±0.5nH	35	0.082	750
10	**LQW18AN8N2D10**	20	8.2nH	±0.5nH	38	0.058	800
11	**LQW18AN8N7D00**	20	8.7nH	±0.5nH	35	0.11	650
12	**LQW18AN9N1D00**	20	9.1nH	±0.5nH	35	0.11	650
13	**LQW18AN9N5D00**	20	9.5nH	±0.5nH	35	0.11	650
14	**LQW18AN10NJ10**	20	10nH	±5%	38	0.058	800
15	**LQW18AN11NJ00**	20	11nH	±5%	35	0.11	650
16	**LQW18AN12NJ10**	20	12nH	±5%	38	0.071	750
17	**LQW18AN13NJ00**	20	13nH	±5%	35	0.13	600
18	**LQW18AN15NJ10**	20	15nH	±5%	42	0.085	700
19	**LQW18AN16NJ00**	20	16nH	±5%	40	0.16	550
20	**LQW18AN18NJ10**	20	18nH	±5%	42	0.085	700
21	**LQW18AN20NJ00**	20	20nH	±5%	40	0.16	550
22	**LQW18AN22NJ10**	20	22nH	±5%	42	0.099	640
23	**LQW18AN24NJ00**	20	24nH	±5%	40	0.21	500
24	**LQW18AN27NJ10**	20	27nH	±5%	42	0.116	590
25	**LQW18AN30NJ00**	20	30nH	±5%	40	0.23	420
26	**LQW18AN33NJ10**	20	33nH	±5%	42	0.132	550
27	**LQW18AN36NJ00**	20	36nH	±5%	40	0.26	400
28	**LQW18AN39NJ00**	20	39nH	±5%	40	0.26	400
29	**LQW18AN43NJ00**	20	43nH	±5%	40	0.29	380
30	**LQW18AN47NJ00**	20	47nH	±5%	38	0.29	380
31	**LQW18AN51NJ00**	20	51nH	±5%	38	0.33	370
32	**LQW18AN56NJ00**	20	56nH	±5%	38	0.35	360
33	**LQW18AN62NJ00**	20	62nH	±5%	38	0.51	280
34	**LQW18AN68NJ00**	20	68nH	±5%	38	0.38	340
35	**LQW18AN72NJ00**	20	72nH	±5%	34	0.56	270
36	**LQW18AN75NJ00**	20	75nH	±5%	34	0.56	270
37	**LQW18AN82NJ00**	20	82nH	±5%	34	0.60	250
38	**LQW18AN91NJ00**	20	91nH	±5%	34	0.64	230
39	**LQW18ANR10J00**	20	100nH	±5%	34	0.68	220

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No.	Part Number	Quantity (pcs.)	Inductance		Q min.	DC Resistance (Ω) max.	Rated Current (mA)
			Nominal	Tolerance			
40	**LQW18ANR11J00**	20	110nH	±5%	32	1.2	200
41	**LQW18ANR12J00**	20	120nH	±5%	32	1.3	180
42	**LQW18ANR13J00**	20	130nH	±5%	32	1.4	170
43	**LQW18ANR15J00**	20	150nH	±5%	32	1.5	160
44	**LQW18ANR16J00**	20	160nH	±5%	32	2.1	150
45	**LQW18ANR18J00**	20	180nH	±5%	25	2.2	140
46	**LQW18ANR20J00**	20	200nH	±5%	25	2.4	120
47	**LQW18ANR22J00**	20	220nH	±5%	25	2.5	120
48	**LQW18ANR27J00**	20	270nH	±5%	30	3.4	110
49	**LQW18ANR33J00**	20	330nH	±5%	30	5.5	85
50	**LQW18ANR39J00**	20	390nH	±5%	30	6.2	80
51	**LQW18ANR47J00**	20	470nH	±5%	30	7.0	75

●EKLMQW2BB (High-frequency Winding Type)

No.	Part Number	Quantity (pcs.)	Inductance		Q min.	DC Resistance (Ω) max.	Rated Current (mA)
			Nominal	Tolerance			
1	**LQW2BHN2N7D13**	20	2.7nH	±0.5nH	20	0.02	1900
2	**LQW2BHN3N1D13**	20	3.1nH	±0.5nH	20	0.02	1800
3	**LQW2BHN3N3D13**	20	3.3nH	±0.5nH	20	0.02	1700
4	**LQW2BHN5N6D13**	20	5.6nH	±0.5nH	35	0.02	1500
5	**LQW2BHN6N8D13**	20	6.8nH	±0.5nH	35	0.02	1400
6	**LQW2BHN8N6D13**	20	8.6nH	±0.5nH	35	0.03	1300
7	**LQW2BHN10NJ13**	20	10nH	±5%	35	0.03	1320
8	**LQW2BHN12NK13**	20	12nH	±10%	40	0.04	1100
9	**LQW2BHN15NK13**	20	15nH	±10%	40	0.04	1000
10	**LQW2BHN18NK13**	20	18.8nH	±10%	40	0.05	1000
11	**LQW2BHN21NK13**	20	21nH	±10%	40	0.05	950
12	**LQW2BHN27NK13**	20	27nH	±10%	40	0.06	900
13	**LQW2BHN33NJ03**	20	33nH	±5%	40	0.15	570
14	**LQW2BHN39NJ03**	20	39nH	±5%	40	0.09	730
15	**LQW2BHN47NJ03**	20	47nH	±5%	40	0.23	450
16	**LQW2BHN56NJ03**	20	56nH	±5%	40	0.26	430
17	**LQW2BHN68NJ03**	20	68nH	±5%	40	0.23	460
18	**LQW2BHN82NJ03**	20	82nH	±5%	40	0.42	320
19	**LQW2BHNR10J03**	20	100nH	±5%	40	0.38	350
20	**LQW2BHNR12J03**	20	120nH	±5%	40	0.40	320
21	**LQW2BHNR15J03**	20	150nH	±5%	30	0.47	390
22	**LQW2BHNR18J03**	20	180nH	±5%	35	0.71	250
23	**LQW2BHNR22J03**	20	220nH	±5%	35	0.70	240
24	**LQW2BHNR27K03**	20	270nH	±10%	15	2.00	190
25	**LQW2BHNR33K03**	20	330nH	±10%	15	2.20	180
26	**LQW2BHNR39K03**	20	390nH	±10%	15	2.50	170
27	**LQW2BHNR47K03**	20	470nH	±10%	15	2.80	160

●EKLMQM18A (for General Use Monolithic Type)

No.	Part Number	Quantity (pcs.)	Inductance		Q min.	DC Resistance (Ω) max.	Rated Current (mA)
			Nominal	Tolerance			
1	**LQM18NN47NM00**	20	47nH	±20%	10	0.30	50
2	**LQM18NN68NM00**	20	68nH	±20%	10	0.30	50
3	**LQM18NN82NM00**	20	82nH	±20%	10	0.30	50

Continued on the following page.

Design Kits

Continued from the preceding page.

No.	Part Number	Quantity (pcs.)	Inductance		Q min.	DC Resistance (Ω) max.	Rated Current (mA)
			Nominal	Tolerance			
4	**LQM18NNR10K00**	20	100nH	±10%	15	0.50	50
5	**LQM18NNR12K00**	20	120nH	±10%	15	0.50	50
6	**LQM18NNR15K00**	20	150nH	±10%	15	0.60	50
7	**LQM18NNR18K00**	20	180nH	±10%	15	0.60	50
8	**LQM18NNR22K00**	20	220nH	±10%	15	0.80	50
9	**LQM18NNR27K00**	20	270nH	±10%	15	0.80	50
10	**LQM18NNR33K00**	20	330nH	±10%	15	0.85	35
11	**LQM18NNR39K00**	20	390nH	±10%	15	1.00	35
12	**LQM18NNR47K00**	20	470nH	±10%	15	1.35	35
13	**LQM18NNR56K00**	20	560nH	±10%	15	1.55	35
14	**LQM18NNR68K00**	20	680nH	±10%	15	1.70	35
15	**LQM18NNR82K00**	20	820nH	±10%	15	2.10	35
16	**LQM18NN1R0K00**	20	1000nH	±10%	35	0.60	25
17	**LQM18NN1R2K00**	20	1200nH	±10%	35	0.80	25
18	**LQM18NN1R5K00**	20	1500nH	±10%	35	0.80	25
19	**LQM18NN1R8K00**	20	1800nH	±10%	35	0.95	25
20	**LQM18NN2R2K00**	20	2200nH	±10%	35	1.15	15

●EKLMM21NA (for General Use Monolithic Type)

No.	Part Number	Quantity (pcs.)	Inductance		Q min.	DC Resistance (Ω) max.	Rated Current (mA)
			Nominal	Tolerance			
1	**LQM21NNR10K10**	20	0.1µH	±10%	20	0.26	250
2	**LQM21NNR12K10**	20	0.12µH	±10%	20	0.29	250
3	**LQM21NNR15K10**	20	0.15µH	±10%	20	0.32	250
4	**LQM21NNR18K10**	20	0.18µH	±10%	20	0.35	250
5	**LQM21NNR22K10**	20	0.22µH	±10%	20	0.38	250
6	**LQM21NNR27K10**	20	0.27µH	±10%	20	0.42	250
7	**LQM21NNR33K10**	20	0.33µH	±10%	20	0.48	250
8	**LQM21NNR39K10**	20	0.39µH	±10%	25	0.53	200
9	**LQM21NNR47K10**	20	0.47µH	±10%	25	0.57	200
10	**LQM21NNR56K10**	20	0.56µH	±10%	25	0.63	150
11	**LQM21NNR68K10**	20	0.68µH	±10%	25	0.72	150
12	**LQM21NNR82K10**	20	0.82µH	±10%	25	0.81	150
13	**LQM21NN1R0K10**	20	1.0µH	±10%	45	0.40	50
14	**LQM21NN1R2K10**	20	1.2µH	±10%	45	0.47	50
15	**LQM21NN1R5K10**	20	1.5µH	±10%	45	0.50	50
16	**LQM21NN1R8K10**	20	1.8µH	±10%	45	0.57	50
17	**LQM21NN2R2K10**	20	2.2µH	±10%	45	0.63	30
18	**LQM21NN2R7K10**	20	2.7µH	±10%	45	0.69	30
19	**LQM21NN3R3K10**	20	3.3µH	±10%	45	0.80	30
20	**LQM21NN3R9K10**	20	3.9µH	±10%	45	0.89	30
21	**LQM21NN4R7K10**	20	4.7µH	±10%	45	1.00	30

●EKLMM21FA (for Choke Monolithic Type)

No.	Part Number	Quantity (pcs.)	Inductance		DC Resistance (Ω)	Rated Current (mA)
			Nominal	Tolerance		
1	**LQM21FN1R0N00**	20	1.0µH	±30%	0.20±30%	220
2	**LQM21FN2R2N00**	20	2.2µH	±30%	0.28±30%	150
3	**LQM21FN4R7N00**	20	4.7µH	±30%	0.30±30%	80
4	**LQM21FN100N00**	20	10µH	±30%	0.50±30%	60

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Design Kits

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No.	Part Number	Quantity (pcs.)	Inductance		DC Resistance (Ω)	Rated Current (mA)
			Nominal	Tolerance		
5	**LQM21FN220N00**	20	22μH	±30%	0.35±30%	13
6	**LQM21FN470N00**	20	47μH	±30%	0.60±30%	7
7	**LQM31FN100M00**	20	10μH	±20%	0.5 max.	70

●EKLMH32MB (for General Use Winding Type)

No.	Part Number	Quantity (pcs.)	Inductance		DC Resistance (Ω) max.	Rated Current (mA)
			Nominal	Tolerance		
1	**LQH32MN1R0M23**	20	1.0μH	±20%	0.50	445
2	**LQH32MN1R2M23**	20	1.2μH	±20%	0.60	425
3	**LQH32MN1R5K23**	20	1.5μH	±10%	0.60	400
4	**LQH32MN1R8K23**	20	1.8μH	±10%	0.70	390
5	**LQH32MN2R2K23**	20	2.2μH	±10%	0.80	370
6	**LQH32MN2R7K23**	20	2.7μH	±10%	0.90	320
7	**LQH32MN3R3K23**	20	3.3μH	±10%	1.00	300
8	**LQH32MN3R9K23**	20	3.9μH	±10%	1.10	290
9	**LQH32MN4R7K23**	20	4.7μH	±10%	1.20	270
10	**LQH32MN5R6K23**	20	5.6μH	±10%	1.30	250
11	**LQH32MN6R8K23**	20	6.8μH	±10%	1.50	240
12	**LQH32MN8R2K23**	20	8.2μH	±10%	1.60	225
13	**LQH32MN100K23**	20	10μH	±10%	1.8	190
14	**LQH32MN120K23**	20	12μH	±10%	2.0	180
15	**LQH32MN150K23**	20	15μH	±10%	2.2	170
16	**LQH32MN180K23**	20	18μH	±10%	2.5	165
17	**LQH32MN220K23**	20	22μH	±10%	2.8	150
18	**LQH32MN270K23**	20	27μH	±10%	3.1	125
19	**LQH32MN330K23**	20	33μH	±10%	3.5	115
20	**LQH32MN390K23**	20	39μH	±10%	3.9	110
21	**LQH32MN470K23**	20	47μH	±10%	4.3	100
22	**LQH32MN560K23**	20	56μH	±10%	4.9	85
23	**LQH32MN680K23**	20	68μH	±10%	5.5	80
24	**LQH32MN820K23**	20	82μH	±10%	6.2	70
25	**LQH32MN101K23**	20	100μH	±10%	7.0	80
26	**LQH32MN121K23**	20	120μH	±10%	8.0	75
27	**LQH32MN151K23**	20	150μH	±10%	9.3	70
28	**LQH32MN181K23**	20	180μH	±10%	10.2	65
29	**LQH32MN221K23**	20	220μH	±10%	11.8	65
30	**LQH32MN271K23**	20	270μH	±10%	12.5	65
31	**LQH32MN331K23**	20	330μH	±10%	13.0	65
32	**LQH32MN391K23**	20	390μH	±10%	22.0	50
33	**LQH32MN471K23**	20	470μH	±10%	25.0	45
34	**LQH32MN561K23**	20	560μH	±10%	28.0	40

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Design Kits

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●EKLMH43MB (for General Use Winding Type)

No.	Part Number	Quantity (pcs.)	Inductance		DC Resistance (Ω) max.	Rated Current (mA)
			Nominal	Tolerance		
1	**LQH43MN1R0M03**	10	1.0μH	±20%	0.20	500
2	**LQH43MN1R2M03**	10	1.2μH	±20%	0.20	500
3	**LQH43MN1R5M03**	10	1.5μH	±20%	0.30	500
4	**LQH43MN1R8M03**	10	1.8μH	±20%	0.30	500
5	**LQH43MN2R2M03**	10	2.2μH	±20%	0.30	500
6	**LQH43MN2R7M03**	10	2.7μH	±20%	0.32	500
7	**LQH43MN3R3M03**	10	3.3μH	±20%	0.35	500
8	**LQH43MN3R9M03**	10	3.9μH	±20%	0.38	500
9	**LQH43MN4R7K03**	10	4.7μH	±10%	0.40	500
10	**LQH43MN5R6K03**	10	5.6μH	±10%	0.47	500
11	**LQH43MN6R8K03**	10	6.8μH	±10%	0.50	450
12	**LQH43MN8R2K03**	10	8.2μH	±10%	0.56	450
13	**LQH43MN100K03**	10	10μH	±10%	0.56	400
14	**LQH43MN120K03**	10	12μH	±10%	0.62	380
15	**LQH43MN150K03**	10	15μH	±10%	0.73	360
16	**LQH43MN180K03**	10	18μH	±10%	0.82	340
17	**LQH43MN220K03**	10	22μH	±10%	0.94	320
18	**LQH43MN270K03**	10	27μH	±10%	1.10	300
19	**LQH43MN330K03**	10	33μH	±10%	1.20	270
20	**LQH43MN390K03**	10	39μH	±10%	1.40	240
21	**LQH43MN470K03**	10	47μH	±10%	1.50	220
22	**LQH43MN560K03**	10	56μH	±10%	1.7	200
23	**LQH43MN680K03**	10	68μH	±10%	1.9	180
24	**LQH43MN820K03**	10	82μH	±10%	2.2	170
25	**LQH43MN101K03**	10	100μH	±10%	2.5	160
26	**LQH43MN121K03**	10	120μH	±10%	3.0	150
27	**LQH43MN151K03**	10	150μH	±10%	3.7	130
28	**LQH43MN181K03**	10	180μH	±10%	4.5	120
29	**LQH43MN221K03**	10	220μH	±10%	5.4	110
30	**LQH43MN271K03**	10	270μH	±10%	6.8	100
31	**LQH43MN331K03**	10	330μH	±10%	8.2	95
32	**LQH43MN391K03**	10	390μH	±10%	9.7	90
33	**LQH43MN471K03**	10	470μH	±10%	11.8	80
34	**LQH43MN561K03**	10	560μH	±10%	14.5	70
35	**LQH43MN681K03**	10	680μH	±10%	17.0	65
36	**LQH43MN821K03**	10	820μH	±10%	20.5	60
37	**LQH43MN102K03**	10	1000μH	±10%	25.0	50
38	**LQH43MN122K03**	10	1200μH	±10%	30.0	45
39	**LQH43MN152K03**	10	1500μH	±10%	37.0	40
40	**LQH43NN182K03**	10	1800μH	±10%	45.0	35
41	**LQH43NN222K03**	10	2200μH	±10%	50.0	30

●EKLMH32CB (for Choke Winding Type)

No.	Part Number	Quantity (pcs.)	Inductance		DC Resistance (Ω)	Rated Current (mA)
			Nominal	Tolerance		
1	**LQH32CNR15M33**	20	0.15μH	±20%	0.028±30%	1450
2	**LQH32CNR27M33**	20	0.27μH	±20%	0.034±30%	1250
3	**LQH32CNR47M33**	20	0.47μH	±20%	0.042±30%	1100
4	**LQH32CN1R0M33**	20	1.0μH	±20%	0.06±30%	1000
5	**LQH32CN2R2M33**	20	2.2μH	±20%	0.097±30%	790

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Design Kits

Continued from the preceding page.

No.	Part Number	Quantity (pcs.)	Inductance		DC Resistance (Ω)	Rated Current (mA)
			Nominal	Tolerance		
6	**LQH32CN4R7M33**	20	4.7µH	±20%	0.15±30%	650
7	**LQH32CN100K33**	20	10µH	±10%	0.3±30%	450
8	**LQH32CN1R0M23**	20	1.0µH	±20%	0.09±30%	800
9	**LQH32CN2R2M23**	20	2.2µH	±20%	0.13±30%	600
10	**LQH32CN4R7M23**	20	4.7µH	±20%	0.2±30%	450
11	**LQH32CN100K23**	20	10µH	±10%	0.44±30%	300
12	**LQH32CN220K23**	20	22µH	±10%	0.71±30%	250
13	**LQH32CN470K23**	20	47µH	±10%	1.3±30%	170
14	**LQH32CN101K23**	20	100µH	±10%	3.5±30%	100
15	**LQH32CN221K23**	20	220µH	±10%	8.4±30%	70
16	**LQH32CN331K23**	20	330µH	±10%	10±30%	60
17	**LQH32CN391K23**	20	390µH	±10%	17±30%	60
18	**LQH32CN471K23**	20	470µH	±10%	19±30%	60
19	**LQH32CN561K23**	20	560µH	±10%	22±30%	60
20	**LQH32CN1R0M53**	20	1.0µH	±20%	0.06±30%	1000
21	**LQH32CN2R2M53**	20	2.2µH	±20%	0.097±30%	790
22	**LQH32CN4R7M53**	20	4.7µH	±20%	0.15±30%	650
23	**LQH32CN100K53**	20	10µH	±10%	0.3±30%	450
24	**LQH32CN150K53**	20	15µH	±10%	0.58±30%	300
25	**LQH32CN220K53**	20	22µH	±10%	0.71±30%	250
26	**LQH32CN330K53**	20	33µH	±10%	1.1±30%	200
27	**LQH32CN470K53**	20	47µH	±10%	1.3±30%	170
28	**LQH32CN680K53**	20	68µH	±10%	2.2±30%	130
29	**LQH32CN101K53**	20	100µH	±10%	3.5±30%	100

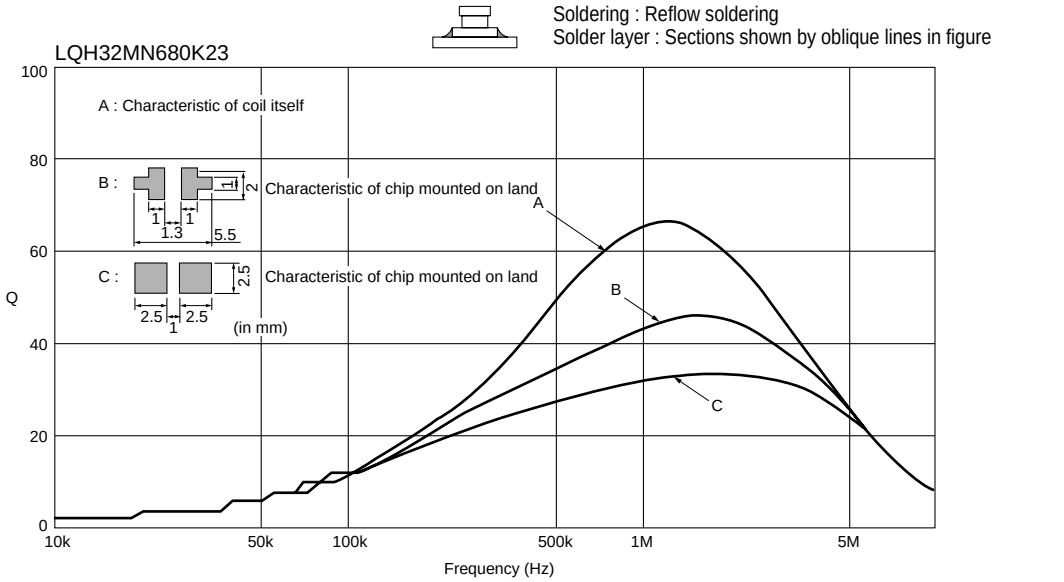
●EKLMH43CB (for Choke Winding Type)

No.	Part Number	Quantity (pcs.)	Inductance		DC Resistance (Ω)	Rated Current (mA)
			Nominal	Tolerance		
1	**LQH43CN1R0M03**	10	1.0µH	±20%	0.08 max	1080
2	**LQH43CN1R5M03**	10	1.5µH	±20%	0.09 max	1000
3	**LQH43CN2R2M03**	10	2.2µH	±20%	0.11 max	900
4	**LQH43CN3R3M03**	10	3.3µH	±20%	0.13 max	800
5	**LQH43CN4R7M03**	10	4.7µH	±20%	0.15 max	750
6	**LQH43CN6R8M03**	10	6.8µH	±20%	0.20 max	720
7	**LQH43CN100K03**	10	10µH	±10%	0.24 max	650
8	**LQH43CN150K03**	10	15µH	±10%	0.32 max	570
9	**LQH43CN220K03**	10	22µH	±10%	0.60 max	420
10	**LQH43CN330K03**	10	33µH	±10%	1.00 max	310
11	**LQH43CN470K03**	10	47µH	±10%	1.10 max	280
12	**LQH43CN680K03**	10	68µH	±10%	1.70 max	220
13	**LQH43CN101K03**	10	100µH	±10%	2.20 max	190
14	**LQH43CN151K03**	10	150µH	±10%	3.50 max	130
15	**LQH43CN221K03**	10	220µH	±10%	4.00 max	110
16	**LQH43CN331K03**	10	330µH	±10%	6.80 max	100
17	**LQH43CN471K03**	10	470µH	±10%	8.50 max	90
18	**LQH3KSN561N23**	10	560µH	±30%	7.8±30%	50
19	**LQH3KSN681N23**	10	680µH	±30%	9.1±30%	40
20	**LQH3KSN102N23**	10	1000µH	±30%	11±30%	30
21	**LQH3KSN152N23**	10	1500µH	±30%	23±30%	25
22	**LQH3KSN222N23**	10	2200µH	±30%	28±30%	20

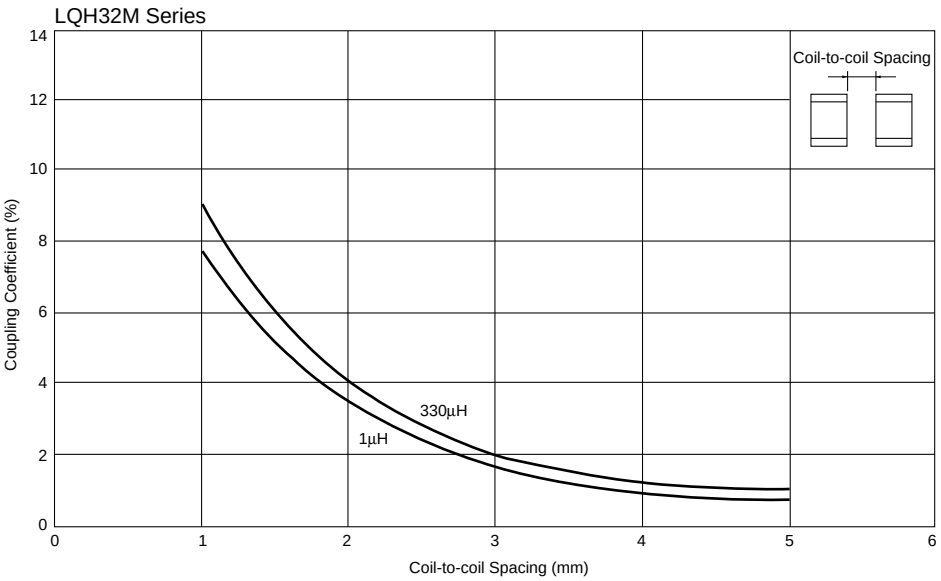
Information

1. Land Area and Q-F Characteristics

PCB : Ag-Pb printed land formed on 0.6mm-thick alumina plate
Solder : H60A
Soldering : Reflow soldering
Solder layer : Sections shown by oblique lines in figure



2. Coupling coefficient versus Coil-to-coil Spacing



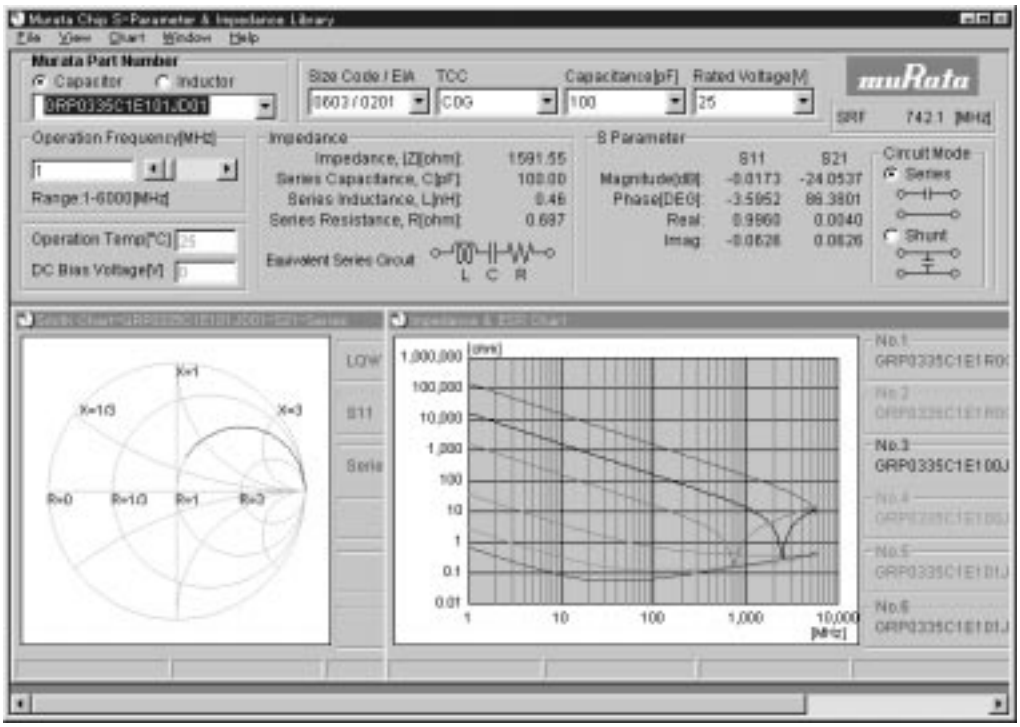
Murata Chip S-Parameter & Impedance Library

Download Service

The program enables you to calculate, view and print graphs of impedance and S parameter of chip capacitors or chip inductors.

S parameter data in Touchstone format can also be copied.

Main Window



- Easy operation due to using Windows interface.
- Fast calculation of data and graph for S parameter and impedance of chip capacitors or chip inductors.
- S parameter is saved in your personal computer and utilized for circuit simulation.

This software uses the Global Part Numbers that have been adopted since June 2001. The Previous Part Numbers can be used by selecting "view" menu. Please check carefully when referring to the contents.

This simulator can be downloaded from Murata web site. **http://www.murata.com/designlib/mcsil.html**

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7. No ozone depleting substances (ODS) under the Montreal Protocol are used in our manufacturing process.

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