

Chip Coils for General Use Monolithic Type

LQM18N Series (0603 Size)

LQM18N series consisting 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.

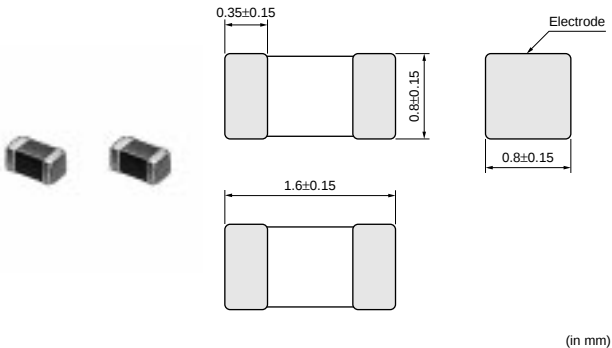
■ Features

- 1. Magnetically shielded structure provides excellent characteristics in crosstalk and magnetic coupling.
- 2. Compact size (1.6x0.8mm) and lightweight
- 3. The external electrodes with nickel barrier structure provide excellent solder heat resistance. Applicable soldering methods are both flow soldering and reflow soldering.

■ Applications

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

■ Dimension



(in mm)

■ Rated Value (□: packaging code)

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

Operating Temperature Range: -40°C to +85°C

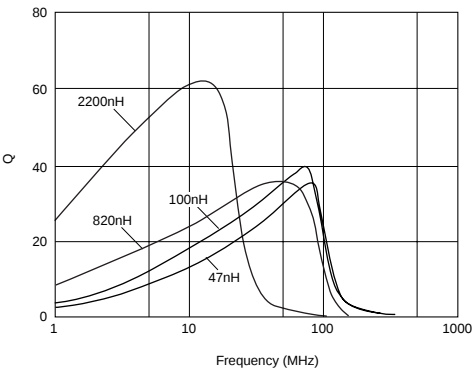
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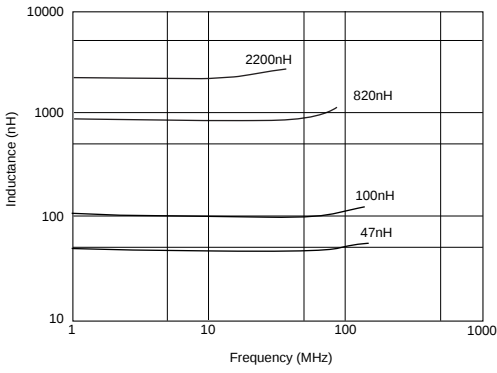
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■ Q - Frequency Characteristics (Typ.)



■ Inductance - Frequency Characteristics (Typ.)



● Part Numbering

Chip Coils (SMD)

(Part Number)

LQ	H	32	M	N	331	K	2	3	L
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩

① Product ID

Product ID	
LQ	Chip Coils

② Structure

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

③ Dimensions (L×W)

Code	Dimensions (L×W)	EIA
02	0.4×0.2mm	01005
03	0.6×0.3mm	0201
04	0.8×0.4mm	03015
15	1.0×0.5mm	0402
18	1.6×0.8mm	0603
21	2.0×1.25mm	0805
2B	2.0×1.5mm	0805
2M	2.0×1.6mm	0806
3N	3.0×3.0mm	1212
31	3.2×1.6mm	1206
32	3.2×2.5mm	1210
43	4.5×3.2mm	1812
55	5.7×5.0mm	2220
66	6.3×6.3mm	2525

④ Applications 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
P	LQM/LQH	for Power Line

⑤ Category

Code	Category
N	Standard Type
S	

⑥ Inductance

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

⑦ Inductance 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

⑧ Features (Except LQH3NP/LQM21P/LQM31P_C0)

Code	Features	Series
0	Standard Type	LQG/LQP/LQW/LQM*1/LQH*2
1	High-Q/ Low DC Resistance	LQW15A/18A/2BH
	Standard Type	LQM21N
2	Standard Type	LQH32C/32M
3	Low DC Resistance	LQH32C
5	Low Profile Type	LQH2MC/32C
7	Large Current Type	LQM21F

*1 : Except LQM21N Series

*2 : Except LQH32 Series

⑨ Features (LQH3NP/LQM21P/LQM31P_C0 Only)

Code	Dimensions (T)
C	0.5mm
G	0.9mm

⑩ Electrode

•Lead (Pb) Free

Code	Electrode	Series
0	Sn	LQG18H/LQP03T/LQW□□A/LQM/LQH3NP
2		LQG15H/LQP02T/LQP15T/LQP□□M/LQH2MC
3	LF Solder	LQW□□H/LQH (Except LQH2MC)
4	Au	LQP03T

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(Part Number)

L	Q	H	3	2	M	N	3	3	1	K	2	3	L
1	2	3	4	5	6	7	8	9	10				

⑩Packaging

Code	Packaging	Series
K	Embossed Taping (ø330mm Reel)	LQH*1 /LQW□□H/LQM31F/LQM21*2
L	Embossed Taping (ø180mm Reel)	LQH/LQW□□H/LQM31F/LQM21*2 /LQM31P
B	Bulk	LQH2MC/LQW/LQG/LQM/LQP
J	Paper Taping (ø330mm Reel)	LQW15A/LQW18A/LQG/LQM18/LQM21*3 /LQP*5
D	Paper Taping (ø180mm Reel)	LQW□□A/LQG/LQM18/LQM21*4 /LQP

*1 Except LQH2MC/LQH3NP/LQH43C
*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 LQM21D(1.0 - 10μH)/LQM21F(1.0 - 2.2μH)/LQM21N(0.1 - 2.2μH)/LQM21P only.
*5 Except LQP15T