Inductors for Power Lines Part Numbering

(Part Number)

LQ	M	21	P	N	R54	M	G	0	D
❶	❷	❸	❹	❺	❻	❼	❽	❾	❿

❶Product ID

Product ID	
LQ	Chip Inductors (Chip Coils)

❷Structure

Code	Structure
H	Wire Wound Type (Ferrite Core)
W	
M	Multilayer Type (Ferrite Core)

❸Dimensions (L×W)

Code	Dimensions (L×W)	Size Code (in inch)
15	1.0×0.5mm	0402
18	1.6×0.8mm	0603
21	2.0×1.25mm	0805
2M	2.0×1.6mm	0806
2H	2.5×2.0mm	1008
3N	3.0×3.0mm	1212
31	3.2×1.6mm	1206
32	3.2×2.5mm	1210
43	4.5×3.2mm	1812
44	4.0×4.0mm	1515
5B	5.0×5.0mm	2020
55	5.7×5.0mm	2220
66	6.3×6.3mm	2525

❹Applications and Characteristics

Code	Series	Applications and Characteristics
D	LQM	for Choke (Low-current DC Power Supplies)
F		for Choke (DC Power Supplies)
D	LQH	for Choke
S		for Choke (Magnetically Shielded Type)
C	LQH/LQW	for Choke (Coating Type)
P	LQM/LQH	for Power Line

❺Category

Code	Category
N	Standard Type
B	Special Feature Classification

❻Inductance

Expressed by three-digit alphanumerics. The unit is micro-henry (μH). The first and second figures are significant digits, and the third figure expresses the number of zeros that follow the two figures. If there is a decimal point, it is expressed by the capital letter "**R**." In this case, all figures are significant digits. If inductance is less than 0.1μH, 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
D	±0.5nH
J	±5%
K	±10%
M	±20%
N	±30%

❽Features (Except for **LQH□□P/LQM□□P**)

Code	Features	Series
0	Standard Type	**LQM/LQH***1 **/LQW**
1	Low DC Resistance	**LQW**
2	Standard Type	**LQH32C**
3	Low DC Resistance	**LQH32C/43CN**
5	Low Profile Type	**LQH2MC/32C**
7	Large Current Type	**LQM21F**
8	Low DC Resistance /Large Current Type	

*1 Except for LQH32 Series

❽Thickness (**LQH□□P/LQM□□P** Only • Except for **LQH43P**)

Code	Dimensions (T)
B	0.35mm
C	0.5mm
D	0.6mm
E	0.7mm
F	0.8mm
0	0.85mm
G	0.9mm
J	1.1mm
M	1.4mm
N	1.55mm
P	1.65mm
T	2.0mm

❾Electrode (Except for **LQH□□P/LQM□□P**)

•Lead (Pb) Free

Code	Electrode	Series
0	Sn	**LQM/LQW**
2		**LQH2MC**
3	LF Solder	**LQH** (Except for **LQH2MC**)

❾Specification (**LQH□□P/LQM□□P** Only • Except for **LQH43P**)

Code	Specification
0/S	Standard Type
C	Good Bias Current Characteristics Type
H	High Spec Type (Low DC Resistance/ Good Bias Current Characteristics Type)
R	Low DC Resistance Type

Continued on the following page.

❽❾Thickness (**LQH43P** Only)

Code	Dimensions (T)
26	2.6mm

❿Packaging

Code	Packaging	Series
K	Embossed Taping (ø330mm Reel)	**LQH***1 **/LQM21***2
F		**LQH3NP_MR**
L	Embossed Taping (ø180mm Reel)	**LQH***5**/LQM18P/LQM21***2 **/LQM31P/LQM2HP/LQM2MP**
E		**LQH3NP_MR**
B	Bulk	**LQH2MC/LQM/LQW**
J	Paper Taping (ø330mm Reel)	**LQM18/LQM21***3
D	Paper Taping (ø180mm Reel)	**LQM18/LQM21***4 **/LQW**

*1 Except for LQH2MC/LQH2HP_G0/LQH3NP/LQH43C
*2 LQM21D(22 - 47µH)/LQM21F(4.7 - 47µH)
*3 LQM21D(1.0 - 10µH)/LQM21F(1.0 - 2.2µH)
*4 LQM21D(1.0 - 10µH)/LQM21F(1.0 - 2.2µH)/LQM21P
*5 Except for LQH3NP_MR

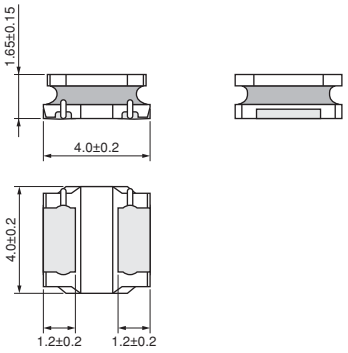
Wire Wound Type (Ferrite Core)

LQH44PN_P0

LQH44PN_P0 Series 1515/4040 (inch/mm)

Size Code 1515 (4040) in inch (in mm), 1.8mm max. Thickness

■ Appearance/ Dimensions



(in mm)

■ Packaging

Code	Packaging	Minimum Quantity
L	ø180mm Embossed Taping	1000
K	ø330mm Embossed Taping	3500

Thickness 1.8mm max. Reflow OK

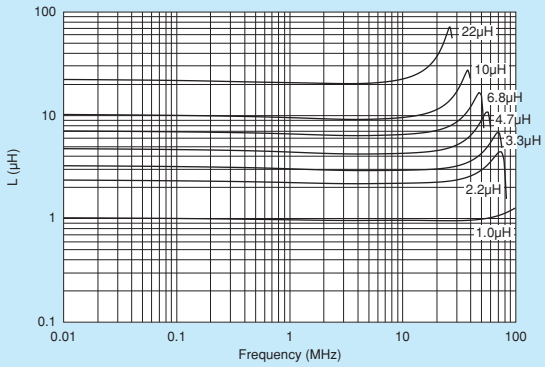
Refer to pages 102 to 106 for mounting information.

■ Rated Value (☐: packaging code)

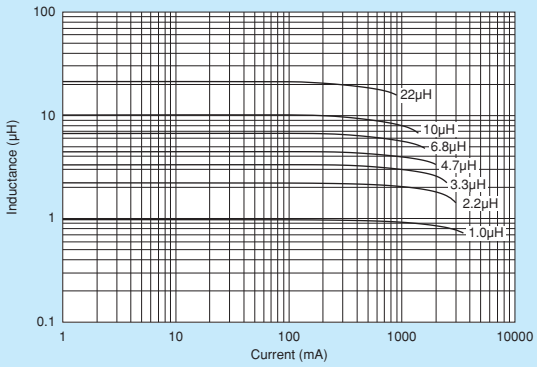
Part Number	Inductance	Rated Current (Based on Inductance Change) *1*3	Rated Current (Based on Temperature Rise) *2*3	DC Resistance	Self-Resonance Frequency (min.)	
LQH44PN1R0NP0☐	1.0µH ±30%	2950mA	2450mA	0.030Ω ±20%	90MHz	Kit
LQH44PN2R2MP0☐	2.2µH ±20%	2500mA	1800mA	0.049Ω ±20%	70MHz	Kit
LQH44PN3R3MP0☐	3.3µH ±20%	2100mA	1770mA	0.065Ω ±20%	50MHz	Kit
LQH44PN4R7MP0☐	4.7µH ±20%	1700mA	1700mA	0.080Ω ±20%	40MHz	Kit
LQH44PN6R8MP0☐	6.8µH ±20%	1400mA	1340mA	0.12Ω ±20%	35MHz	Kit
LQH44PN100MP0☐	10µH ±20%	1150mA	1170mA	0.16Ω ±20%	25MHz	Kit
LQH44PN220MP0☐	22µH ±20%	800mA	790mA	0.37Ω ±20%	17MHz	Kit

Inductance Test Frequency: 1MHz Class of Magnetic Shield: Magnetic shield of magnetic powder in resin
Operating Temperature Range (Self-temperature rise is included): -40℃～+125℃
Operating Temperature Range (Self-temperature rise is not included): -40℃～+85℃
For reflow soldering only.
*1 When applied rated current to the products, inductance will be within ±30% of initial inductance value.
*2 When applied rated current to the products, self-temperature rise shall be limited to 40℃ max.
*3 Keep the temperature (ambient temperature plus self-generation of heat) under 125℃.

■ Inductance-Frequency Characteristics (Typ.)



■ Inductance-Current Characteristics (Typ.)



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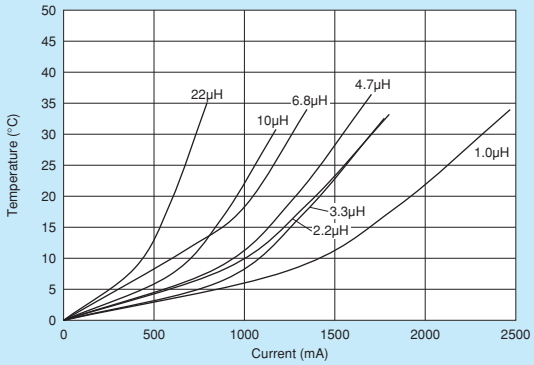
■ Temperature Rise Characteristics (Typ.)



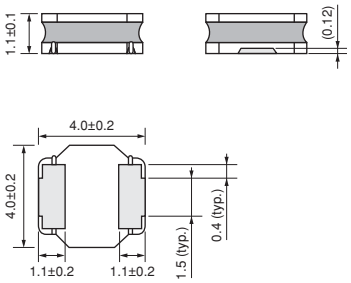
Wire Wound Type (Ferrite Core)

LQH44PN_J0

LQH44PN_J0 Series 1515/4040 (inch/mm)

Size Code 1515 (4040) in inch (in mm), 1.2mm max. Thickness

■ Appearance/ Dimensions



(in mm)

■ Packaging

Code	Packaging	Minimum Quantity
L	ø180mm Embossed Taping	1000
K	ø330mm Embossed Taping	3500

Thickness 1.2mm max. Reflow OK

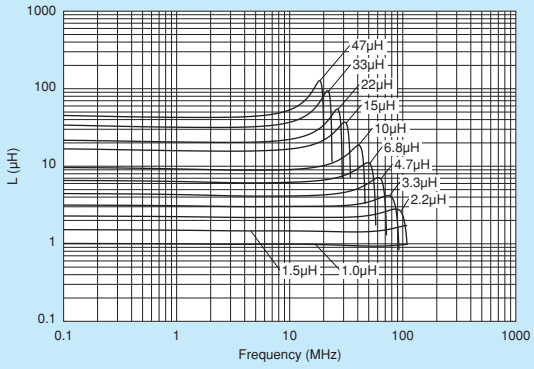
Refer to pages 102 to 106 for mounting information.

■ Rated Value (□: packaging code)

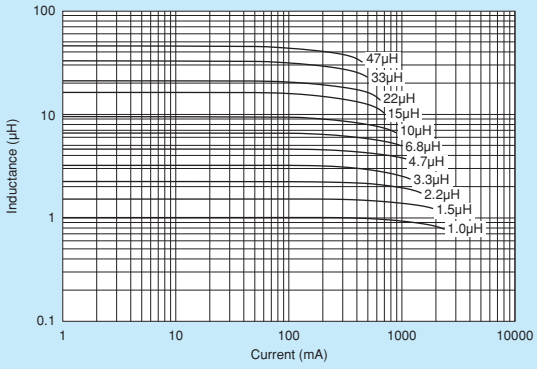
Part Number	Inductance	Rated Current *1*3 (Based on Inductance Change)	Rated Current *2*3 (Based on Temperature Rise)	DC Resistance	Self-Resonance Frequency (min.)	
LQH44PN1R0NJ0□	1.0μH ±30%	2000mA	1530mA	0.048Ω ±20%	130MHz	Kit
LQH44PN1R5MJ0□	1.5μH ±20%	1600mA	1380mA	0.061Ω ±20%	90MHz	Kit
LQH44PN2R2MJ0□	2.2μH ±20%	1320mA	1230mA	0.074Ω ±20%	68MHz	Kit
LQH44PN3R3MJ0□	3.3μH ±20%	900mA	1000mA	0.088Ω ±20%	55MHz	Kit
LQH44PN4R7MJ0□	4.7μH ±20%	840mA	980mA	0.117Ω ±20%	50MHz	Kit
LQH44PN6R8MJ0□	6.8μH ±20%	720mA	860mA	0.143Ω ±20%	38MHz	Kit
LQH44PN100MJ0□	10μH ±20%	560mA	790mA	0.207Ω ±20%	30MHz	Kit
LQH44PN150MJ0□	15μH ±20%	430mA	610mA	0.385Ω ±20%	25MHz	Kit
LQH44PN220MJ0□	22μH ±20%	400mA	550mA	0.480Ω ±20%	18MHz	Kit
LQH44PN330MJ0□	33μH ±20%	360mA	430mA	0.740Ω ±20%	15MHz	Kit
LQH44PN470MJ0□	47μH ±20%	300mA	380mA	1.014Ω ±20%	13MHz	Kit

Inductance Test Frequency: 100kHz Class of Magnetic Shield: Magnetic shield of magnetic powder in resin
Operating Temperature Range (Self-temperature rise is included): -40℃～+125℃
Operating Temperature Range (Self-temperature rise is not included): -40℃～+85℃
For reflow soldering only.
*1 When applied rated current to the products, inductance will be within ±30% of initial inductance value.
*2 When applied rated current to the products, self-temperature rise shall be limited to 40℃ max.
*3 Keep the temperature (ambient temperature plus self-generation of heat) under 125℃.

■ Inductance-Frequency Characteristics (Typ.)



■ Inductance-Current Characteristics (Typ.)



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■ Temperature Rise Characteristics (Typ.)