

Chip Inductors (Chip Coils)





EU RoHS Compliant

- All the products in this catalog comply with EU RoHS.
- EU RoHS is "the European Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment."
- For more details, please refer to our web page, "Murata's Approach for EU RoHS" (<http://www.murata.com/en-eu/support/compliance/rohs>).

Because of the difference of measurement condition, electrical characteristics plots on this catalog may have some difference to official specification value.

● Part Numbering

Inductors for Power Lines

(Part Number)

LQ	M	21	P	N	R54	M	G	0	D
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩

① Product ID

Product ID	
LQ	Chip Inductors (Chip Coils)

② Structure

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

③ Dimensions (LxW)

Code	Nominal Dimensions (LxW)	Size Code (in inch)
15	1.0x0.5mm	0402
18	1.6x0.8mm	0603
21	2.0x1.25mm	0805
2M	2.0x1.6mm	0806
2H	2.5x2.0mm	1008
3N	3.0x3.0mm	1212
31	3.2x1.6mm	1206
32	3.2x2.5mm	1210
43	4.5x3.2mm	1812
44	4.0x4.0mm	1515
5B	5.0x5.0mm	2020
55	5.7x5.0mm	2220
66	6.3x6.3mm	2525

④ Applications 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

⑤ Category

Code	Category
N	Standard Type
B	Special Feature Classification
W	

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 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. For those products whose inductance values are specified using three designated digits, these values may be indicated using the closest two digits instead.

⑦ Inductance Tolerance

Code	Inductance Tolerance
D	±0.5nH
J	±5%
K	±10%
M	±20%
N	±30%

⑧ Features (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/32D
3	Low DC Resistance	LQH32C/43CN
5	Low Profile Type	LQH2MC/32C/32D
7	Large Current Type	LQM21F
8	Low DC Resistance /Large Current Type	

*1 Except for LQH32 Series

⑨ Thickness

(LQH□□P/LQM□□P Only • Except for LQH43P/LQH5BPN_38)

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

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⑨ Electrode (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)

⑨ Specification

(LQH□□P/LQM□□P Only • Except for LQH43P/LQH5BPN_38)

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

⑧⑨ Thickness (LQH43P/LQH5BPN_38 Only)

Code	Dimensions (T)
26	2.6mm
38	4.0mm max.

⑩ Packaging

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/LQM32P/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)

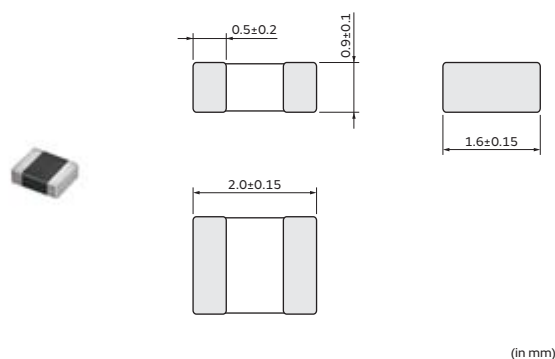
*4 LQM21D(1.0 - 10μH)/LQM21F(1.0 - 2.2μH)/LQM21P

*5 Except for LQH3NP_MR

Inductors for Power Lines

LQM2MPN_G0 Series 0806 (2016) inch (mm)

Appearance/Dimensions



Packaging

Code	Packaging	Minimum Quantity
L	ø180mm Embossed Taping	3000
B	Packing in Bulk	1000

Rated Value (□: packaging code)

Part Number	Inductance	Inductance Test Frequency	Rated Current	DC Resistance	S.R.F.* (min.)
LQM2MPNR47MG0□	0.47μH ±20%	1MHz	1.6A(Ambient temp.85°C) 1.2A(Ambient temp.125°C)	0.060Ω(typ.)	100MHz
LQM2MPNR47NG0□	0.47μH ±30%	1MHz	1.6A(Ambient temp.85°C) 1.2A(Ambient temp.125°C)	0.060Ω(typ.)	100MHz
LQM2MPN1R0NG0□	1.0μH ±30%	1MHz	1.4A(Ambient temp.85°C) 1.0A(Ambient temp.125°C)	0.085Ω(typ.)	60MHz
LQM2MPN1R5MG0□	1.5μH ±20%	1MHz	1.2A(Ambient temp.85°C) 0.9A(Ambient temp.125°C)	0.11Ω(typ.)	50MHz
LQM2MPN1R5NG0□	1.5μH ±30%	1MHz	1.2A(Ambient temp.85°C) 0.9A(Ambient temp.125°C)	0.11Ω(typ.)	50MHz
LQM2MPN2R2MG0□	2.2μH ±20%	1MHz	1.2A(Ambient temp.85°C) 0.9A(Ambient temp.125°C)	0.11Ω(typ.)	40MHz
LQM2MPN2R2NG0□	2.2μH ±30%	1MHz	1.2A(Ambient temp.85°C) 0.9A(Ambient temp.125°C)	0.11Ω(typ.)	40MHz
LQM2MPN3R3NG0□	3.3μH ±30%	1MHz	1.2A(Ambient temp.85°C) 0.9A(Ambient temp.125°C)	0.12Ω(typ.)	30MHz
LQM2MPN4R7MG0□	4.7μH ±20%	1MHz	1.1A(Ambient temp.85°C) 0.8A(Ambient temp.125°C)	0.14Ω(typ.)	20MHz
LQM2MPN4R7NG0□	4.7μH ±30%	1MHz	1.1A(Ambient temp.85°C) 0.8A(Ambient temp.125°C)	0.14Ω(typ.)	20MHz

Operating temp. range: -55 to 125°C

Class of Magnetic Shield: Ferrite Core

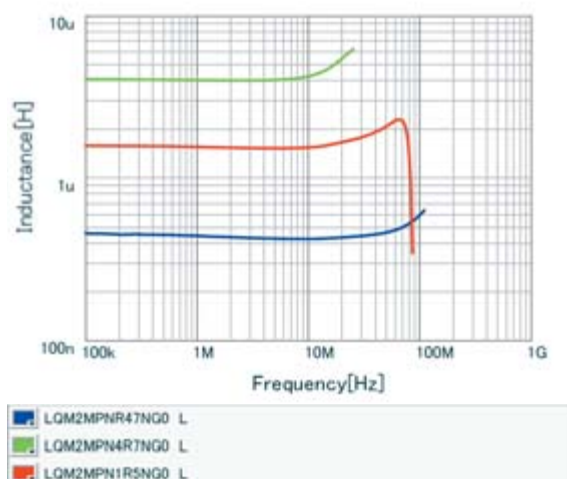
*S.R.F.: Self-Resonant Frequency

In operating temperatures exceeding +85°C, derating of current is necessary for the LQM2MPN_G0 series. Please apply the derating curve shown in the chart according to the operating temperature. Please consider the "Notice (Rating)." When rated current is applied to the products, the temperature rise caused by self-generated heat shall be limited to 40°C max.

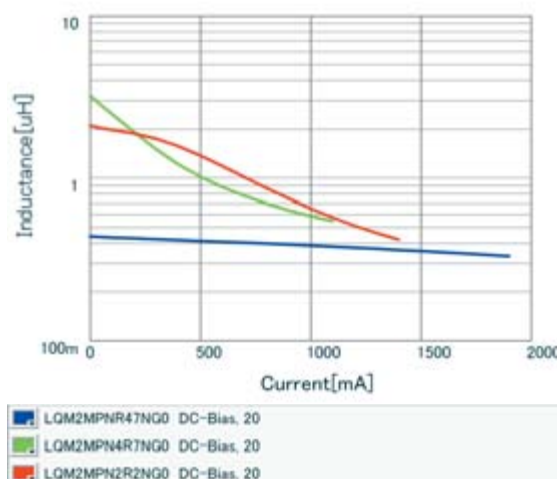
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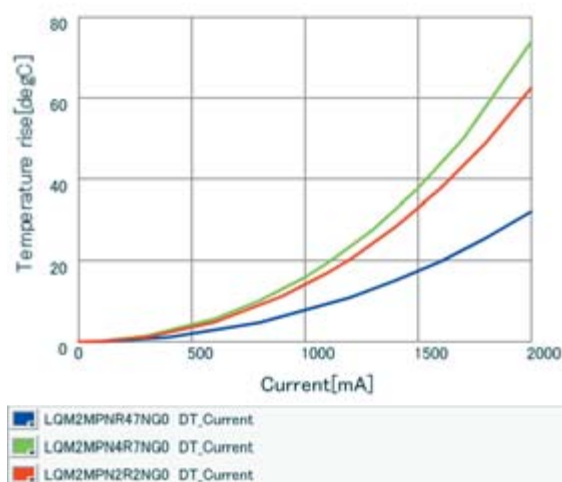
Inductance-Frequency Characteristics (Typ.)



Inductance-Current Characteristics (Typ.)



Temperature Rise Characteristics (Typ.)



Notice (Rating)

In operating temperatures exceeding +85°C, derating of current is necessary for the LQM2MP_G0 series. Please apply the derating curve shown in the chart according to the operating temperature.

Derating of Rated Current

