Chip Coils for High Frequency Vertical Wire Wound Type

muRata

LQW2BH Series (0805 Size)

LQW2BH series consists of air-core chip coil using a sub-miniature alumina core as a bobbin.
The series has excellent solder heat resistance.
Applicable soldering methods are both flow soldering and reflow soldering.

■ Features (LQW2BH_03)

1. Inductance: 3.3 to 470nH (Wide inductance ranges)
2. High self-resonant frequency characteristics
3. High Q value and highly stable inductance in high frequency
4. Low DC resistance and large rated current

■ Features (LQW2BH_13)

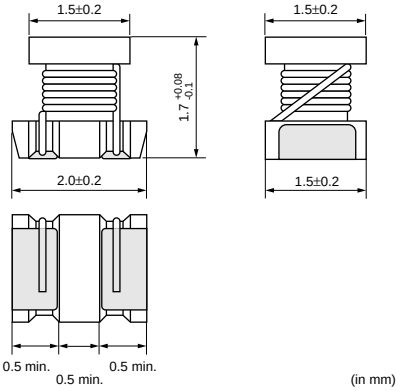
LQW2BH_13 using thick wire has higher Q value than existing LQW2BH_03 series.

1. Inductance: 2.7 to 27nH
2. DC resistance: 0.02 to 0.06 ohm
3. Q value: 85 to 95 (Typ.) at 800MHz
4. Rated current: 900 to 1900mA

■ Applications

1. High frequency circuit in telecommunications equipment, such as DECT, PHS, PCS, PCN, GSM and CDMA.
2. Impedance Matching
   - PA module
   - SAW filter
3. Resonance circuit
   - VCO

■ Dimension



(in mm)

LQW2BH_03 Series

■ Rated Value (☐: packaging code)

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

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

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Part Number	Inductance	Test Frequency	Rated Current	Max. of DC Resistance	Q (min.)	Test Frequency	Self Resonance Frequency (min.)
LQW2BHN47NG03□	47nH±2%	100MHz	450mA	0.23ohm	40	200MHz	1600MHz
LQW2BHN47NJ03□	47nH±5%	100MHz	450mA	0.23ohm	40	200MHz	1600MHz
LQW2BHN56NG03□	56nH±2%	100MHz	430mA	0.26ohm	40	200MHz	1500MHz
LQW2BHN56NJ03□	56nH±5%	100MHz	430mA	0.26ohm	40	200MHz	1500MHz
LQW2BHN68NG03□	68nH±2%	100MHz	460mA	0.23ohm	40	200MHz	1200MHz
LQW2BHN68NJ03□	68nH±5%	100MHz	460mA	0.23ohm	40	200MHz	1200MHz
LQW2BHN82NG03□	82nH±2%	100MHz	320mA	0.42ohm	40	150MHz	1100MHz
LQW2BHN82NJ03□	82nH±5%	100MHz	320mA	0.42ohm	40	150MHz	1100MHz
LQW2BHNR10G03□	100nH±2%	100MHz	270mA	0.55ohm	35	150MHz	900MHz
LQW2BHNR10J03□	100nH±5%	100MHz	350mA	0.38ohm	40	150MHz	900MHz
LQW2BHNR12G03□	120nH±2%	100MHz	320mA	0.40ohm	40	150MHz	750MHz
LQW2BHNR12J03□	120nH±5%	100MHz	320mA	0.40ohm	40	150MHz	750MHz
LQW2BHNR15G03□	150nH±2%	100MHz	260mA	0.68ohm	30	150MHz	350MHz
LQW2BHNR15J03□	150nH±5%	100MHz	390mA	0.47ohm	30	150MHz	350MHz
LQW2BHNR18G03□	180nH±2%	100MHz	250mA	0.71ohm	35	100MHz	700MHz
LQW2BHNR18J03□	180nH±5%	100MHz	250mA	0.71ohm	35	100MHz	700MHz
LQW2BHNR22G03□	220nH±2%	100MHz	240mA	0.70ohm	35	100MHz	500MHz
LQW2BHNR22J03□	220nH±5%	100MHz	240mA	0.70ohm	35	100MHz	500MHz
LQW2BHNR27J03□	270nH±5%	10MHz	190mA	2.00ohm	15	25.2MHz	550MHz
LQW2BHNR27K03□	270nH±10%	10MHz	190mA	2.00ohm	15	25.2MHz	550MHz
LQW2BHNR33J03□	330nH±5%	10MHz	180mA	2.20ohm	15	25.2MHz	500MHz
LQW2BHNR33K03□	330nH±10%	10MHz	180mA	2.20ohm	15	25.2MHz	500MHz
LQW2BHNR39J03□	390nH±5%	10MHz	170mA	2.50ohm	15	25.2MHz	400MHz
LQW2BHNR39K03□	390nH±10%	10MHz	170mA	2.50ohm	15	25.2MHz	400MHz
LQW2BHNR47J03□	470nH±5%	10MHz	160mA	2.80ohm	15	25.2MHz	350MHz
LQW2BHNR47K03□	470nH±10%	10MHz	160mA	2.80ohm	15	25.2MHz	350MHz

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

LQW2BH_13 Series (High Q/Low DC Resistance Type)

■ Rated Value (□: packaging code)

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

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

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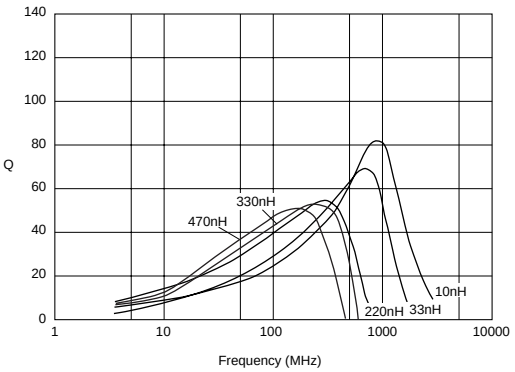
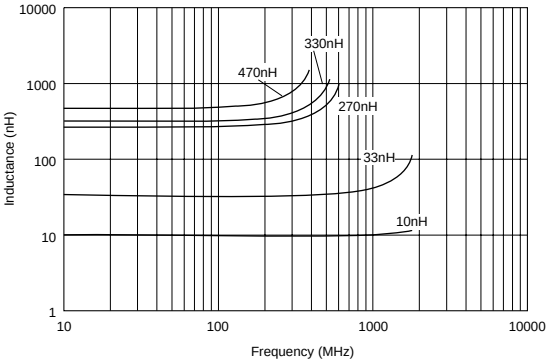
■ Q - Frequency Characteristics (Typ.)

LQW2BH_03



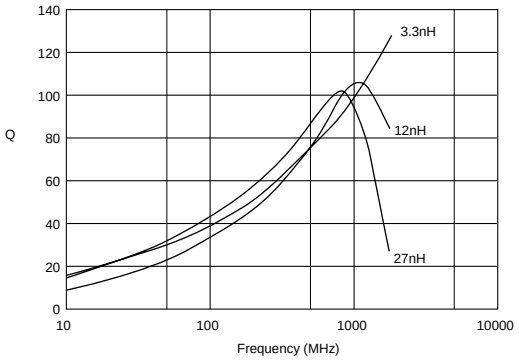
■ Inductance - Frequency Characteristics (Typ.)

LQW2BH_03



■ Q - Frequency Characteristics (Typ.)

LQW2BH_13



■ Inductance - Frequency Characteristics (Typ.)

LQW2BH_13