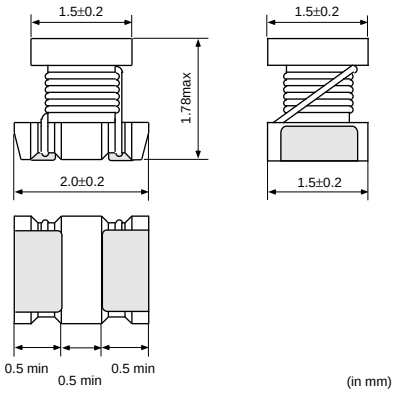
Chip Coils

High-frequency Winding Type LQW2BH/LQW31H Series

The LQW2BH series consists of air-core chip coil using a sub-miniature alumina core as a bobbin. The high Q value at high frequencies and high self-resonant frequencies make this coil perfect for use in the high frequency circuits of communications equipment.



■ Features

1. LQW2BH series covers inductance range from 3.3nH 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 to handle higher allowable current.
4. The series has excellent solder heat resistance. Both flow and reflow soldering methods can be employed.

• LQW2BHN_J01, K01
Inductance tolerance +-0.5nH (8.2nH max.), +-5% (10nH to 470nH) is realized. The sub miniature dimensions (2.0x1.5mm) allow high density mounting.

• LQW2BHN_G01 (Tight inductance tolerance)
Tight inductance tolerance of +-2% is available.

• LQW2BHN_11
LQW2BHN_11 using thick wire (0.12mm in diameter) has higher Q value than existing LQW2BH series. Low DC resistance design enables to handle higher current.
LQW2BHN_11 covers inductance range from 2.7nH to 27nH.

■ 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_01

Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQW2BHN8N2D01	8.2 ±0.5nH	100	630	0.12 max.	20	250	3900 min.	0805
LQW2BHN10NJ01	10 ±5%	100	1320	0.03 max.	30	250	3300 min.	0805
LQW2BHN12NJ01	12 ±5%	100	680	0.11 max.	30	250	3200 min.	0805
LQW2BHN15NJ01	15 ±5%	100	630	0.12 max.	30	250	2700 min.	0805
LQW2BHN18NJ01	18 ±5%	100	690	0.10 max.	30	250	2600 min.	0805
LQW2BHN22NJ01	22 ±5%	100	720	0.09 max.	30	250	2100 min.	0805
LQW2BHN27NJ01	27 ±5%	100	540	0.17 max.	40	250	2300 min.	0805
LQW2BHN33NG01	33 ±2%	100	570	0.15 max.	40	250	1900 min.	0805
LQW2BHN33NJ01	33 ±5%	100	570	0.15 max.	40	250	1900 min.	0805
LQW2BHN33NK01	33 ±10%	100	570	0.15 max.	40	250	1900 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
LQW2BHN39NG01	39 ±2%	100	730	0.09 max.	40	250	1700 min.	0805
LQW2BHN39NJ01	39 ±5%	100	730	0.09 max.	40	250	1700 min.	0805
LQW2BHN39NK01	39 ±10%	100	730	0.09 max.	40	250	1700 min.	0805
LQW2BHN47NG01	47 ±2%	100	450	0.23 max.	40	200	1600 min.	0805
LQW2BHN47NJ01	47 ±5%	100	450	0.23 max.	40	200	1600 min.	0805
LQW2BHN47NK01	47 ±10%	100	450	0.23 max.	40	200	1600 min.	0805
LQW2BHN56NG01	56 ±2%	100	430	0.26 max.	40	200	1500 min.	0805
LQW2BHN56NJ01	56 ±5%	100	430	0.26 max.	40	200	1500 min.	0805
LQW2BHN56NK01	56 ±10%	100	430	0.26 max.	40	200	1500 min.	0805
LQW2BHN68NG01	68 ±2%	100	460	0.23 max.	40	200	1200 min.	0805
LQW2BHN68NJ01	68 ±5%	100	460	0.23 max.	40	200	1200 min.	0805
LQW2BHN68NK01	68 ±10%	100	460	0.23 max.	40	200	1200 min.	0805
LQW2BHN82NG01	82 ±2%	100	320	0.42 max.	40	150	1100 min.	0805
LQW2BHN82NJ01	82 ±5%	100	320	0.42 max.	40	150	1100 min.	0805
LQW2BHN82NK01	82 ±10%	100	320	0.42 max.	40	150	1100 min.	0805
LQW2BHNR10G01	100 ±2%	100	270	0.55 max.	35	150	900 min.	0805
LQW2BHNR10J01	100 ±5%	100	350	0.38 max.	40	150	900 min.	0805
LQW2BHNR10K01	100 ±10%	100	350	0.38 max.	40	150	900 min.	0805
LQW2BHNR12G01	120 ±2%	100	320	0.40 max.	40	150	750 min.	0805
LQW2BHNR12J01	120 ±5%	100	320	0.40 max.	40	150	750 min.	0805
LQW2BHNR12K01	120 ±10%	100	320	0.40 max.	40	150	750 min.	0805
LQW2BHNR15G01	150 ±2%	100	260	0.68 max.	30	150	350 min.	0805
LQW2BHNR15J01	150 ±5%	100	390	0.47 max.	30	150	350 min.	0805
LQW2BHNR15K01	150 ±10%	100	390	0.47 max.	30	150	350 min.	0805
LQW2BHNR18G01	180 ±2%	100	250	0.71 max.	35	100	700 min.	0805
LQW2BHNR18J01	180 ±5%	100	250	0.71 max.	35	100	700 min.	0805
LQW2BHNR18K01	180 ±10%	100	250	0.71 max.	35	100	700 min.	0805
LQW2BHNR22G01	220 ±2%	100	240	0.70 max.	35	100	500 min.	0805
LQW2BHNR22J01	220 ±5%	100	240	0.70 max.	35	100	500 min.	0805
LQW2BHNR22K01	220 ±10%	100	240	0.70 max.	35	100	500 min.	0805
LQW2BHNR27K01	270 ±10%	100	190	2.00 max.	15	25.2	550 min.	0805
LQW2BHNR33K01	330 ±10%	100	180	2.20 max.	15	25.2	500 min.	0805
LQW2BHNR39K01	390 ±10%	100	170	2.50 max.	15	25.2	400 min.	0805
LQW2BHNR47K01	470 ±10%	100	160	2.80 max.	15	25.2	350 min.	0805

Operating Temp. Range : -25°C to 85°C

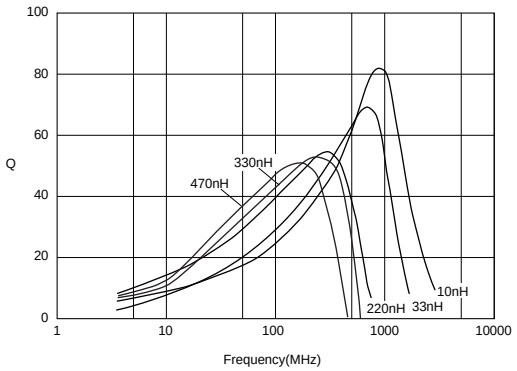
LQW2BH_11 (High-Q/Low DC Resistance Type)

Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQW2BHN2N7D11	2.7 ±0.5nH	100	1900	0.02 max.	20	250	6000 min.	0805
LQW2BHN3N1D11	3.1 ±0.5nH	100	1800	0.02 max.	20	250	6000 min.	0805
LQW2BHN3N3D11	3.3 ±0.5nH	100	1700	0.02 max.	20	250	6000 min.	0805
LQW2BHN5N6D11	5.6 ±0.5nH	100	1500	0.02 max.	35	250	6000 min.	0805
LQW2BHN6N8D11	6.8 ±0.5nH	100	1400	0.02 max.	35	250	5400 min.	0805
LQW2BHN8N6D11	8.6 ±0.5nH	100	1300	0.03 max.	35	250	3900 min.	0805
LQW2BHN10NJ11	10 ±5%	100	1320	0.03 max.	35	250	3300 min.	0805
LQW2BHN12NK11	12 ±10%	100	1100	0.04 max.	40	250	3200 min.	0805
LQW2BHN15NK11	15 ±10%	100	1000	0.04 max.	40	250	3100 min.	0805
LQW2BHN18NK11	18.8 ±10%	100	1000	0.05 max.	40	250	2600 min.	0805
LQW2BHN21NK11	21 ±10%	100	950	0.05 max.	40	250	2200 min.	0805
LQW2BHN27NK11	27 ±10%	100	900	0.06 max.	40	250	1800 min.	0805

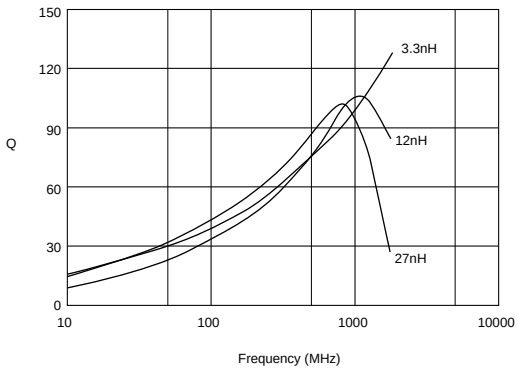
Operating Temp. Range : -25°C to 85°C

■ Q-Frequency Characteristics

LQW2BHN_01

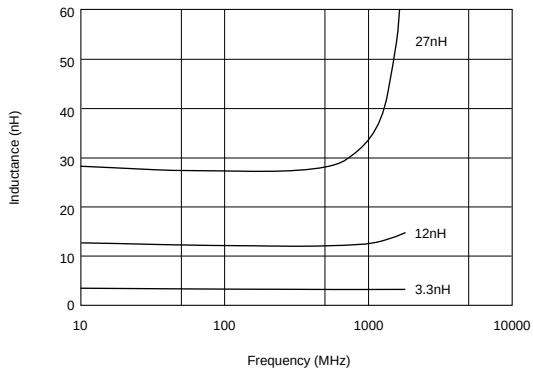


LQW2BHN_11



■ Inductance-Frequency Characteristics

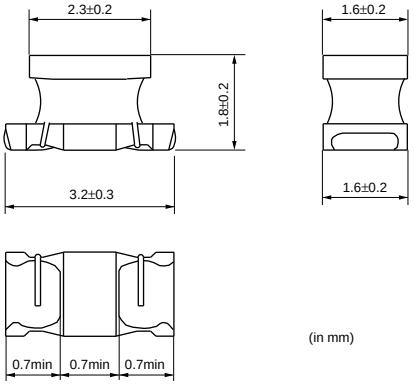
LQW2BHN_11



LQW31H Series

■ Features

The 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.



(in mm)

Part Number	Inductance (nH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (MHz)	EIA
LQW31HN8N8J01	8.8 ±5%	100	750	0.029 ±40%	50	436	1000 min.	1206
LQW31HN8N8K01	8.8 ±10%	100	750	0.029 ±40%	50	436	1000 min.	1206
LQW31HN15NJ01	14.7 ±5%	100	680	0.035 ±40%	60	436	1000 min.	1206
LQW31HN15NK01	14.7 ±10%	100	680	0.035 ±40%	60	436	1000 min.	1206
LQW31HN17NJ01	17 ±5%	100	650	0.037 ±40%	60	436	1000 min.	1206
LQW31HN17NK01	17 ±10%	100	650	0.037 ±40%	60	436	1000 min.	1206
LQW31HN23NJ01	23 ±5%	100	590	0.046 ±40%	60	436	1000 min.	1206
LQW31HN23NK01	23 ±10%	100	590	0.046 ±40%	60	436	1000 min.	1206
LQW31HN27NJ01	27 ±5%	100	560	0.051 ±40%	60	436	1000 min.	1206
LQW31HN27NK01	27 ±10%	100	560	0.051 ±40%	60	436	1000 min.	1206
LQW31HN33NJ01	33 ±5%	100	530	0.057 ±40%	60	436	1000 min.	1206
LQW31HN33NK01	33 ±10%	100	530	0.057 ±40%	60	436	1000 min.	1206
LQW31HN39NJ01	39 ±5%	100	490	0.067 ±40%	60	436	1000 min.	1206
LQW31HN39NK01	39 ±10%	100	490	0.067 ±40%	60	436	1000 min.	1206
LQW31HN47NJ01	47 ±5%	100	380	0.11 ±40%	60	436	1000 min.	1206
LQW31HN47NK01	47 ±10%	100	380	0.11 ±40%	60	436	1000 min.	1206
LQW31HN56NJ01	56 ±5%	100	330	0.14 ±40%	60	436	1000 min.	1206
LQW31HN56NK01	56 ±10%	100	330	0.14 ±40%	60	436	1000 min.	1206
LQW31HN64NJ01	64 ±5%	100	290	0.18 ±40%	60	436	1000 min.	1206
LQW31HN64NK01	64 ±10%	100	290	0.18 ±40%	60	436	1000 min.	1206
LQW31HN84NJ01	84 ±5%	100	240	0.28 ±40%	60	436	1000 min.	1206
LQW31HN84NK01	84 ±10%	100	240	0.28 ±40%	60	436	1000 min.	1206
LQW31HNR10J01	100 ±5%	100	230	0.3 ±40%	60	436	900 min.	1206
LQW31HNR10K01	100 ±10%	100	230	0.3 ±40%	60	436	900 min.	1206

Operating Temp. Range : -25°C to 85°C

■ Q-Frequency Characteristics