

CHIP INDUCTORS

SURFACE MOUNT CHIP INDUCTORS

LQG11A SERIES

NEW

muRata

Innovator in Electronics



The LQG11A Series is designed to have stable characteristics in high frequency range by applying an integrated multilayer process.

FEATURES

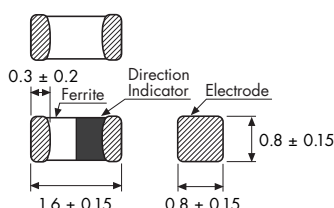
- High-Q characteristics
- Small size of LQG11A (1.6 x 0.8 x 0.8mm) is suitable for small portable equipment, especially for card size equipment.
- The external electrodes with nickel barrier structure provide excellent solder heat resistance.

APPLICATIONS

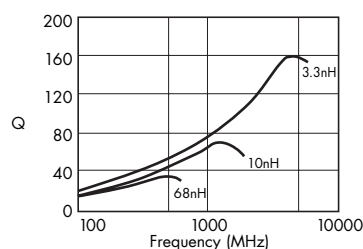
- High frequency circuit of telecommunication equipment
- RF circuits
- DECT, PHS, AMPS, PCS, PCN, GSM

DIMENSIONS: mm

0603 – LQG11A



Q CHARACTERISTICS



SPECIFICATIONS

Part Number	Inductance			Q		DC Resistance (Ω max.)	Self-resonant Frequency (MHz min.)	Allowable Current (mA)	Operating Temperature Range	
	Nominal Value (nH)	Tolerance	Test Frequency (MHz)	Nominal Value (min.)	Test Frequency (MHz)					
★LQG11A1N2S00	1.2	±0.3nH	100	12	100	0.10	6000	300	−40°C ~ +85°C	
★LQG11A1N5S00	1.5									
★LQG11A1N8S00	1.8									
★LQG11A2N2S00	2.2									
★LQG11A2N7S00	2.7									
★LQG11A3N3S00	3.3									
★LQG11A3N9S00	3.9									
★LQG11A4N7S00	4.7									
★LQG11A5N6S00	5.6									
★LQG11A6N8J00	6.8	±5%	100	12	100	0.20	5000			
★LQG11A8N2J00	8.2						0.25			4000
★LQG11A10NJ00	10									0.30
★LQG11A12NJ00	12					0.35	3000			
★LQG11A15NJ00	15					0.40	2800			
★LQG11A18NJ00	18					0.45	2600			
★LQG11A22NJ00	22					0.50	2300			
★LQG11A27NJ00	27					0.55	2000			
★LQG11A33NJ00	33					0.60	1700			
★LQG11A39NJ00	39					0.65	1500			
★LQG11A47NJ00	47					0.70	1200			
★LQG11A56NJ00	56					0.75	1100			
★LQG11A68NJ00	68					0.80	1000			
★LQG11A82NJ00	82					0.85	900			
★LQG11A10J00	100					0.90	800			

PART NUMBERING SYSTEM

TYPE LQG: Monolithic	SIZE 11: 1.6 x 0.8mm	CHARACTERISTICS A: Air Coil	INDUCTANCE CODE 1N2: 1.2nH 10N: 10nH R10: 100nH	TOLERANCE S: ± .3nH J: ± 5%	ELECTRODE CONSTRUCTION 00: Ag + Ni + Sn
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*Available as standard through authorized Murata Electronics Distributors. *Applicable in North American market only. *Applicable in European market only.
For more detailed information regarding this product line in North America, see Catalog No. E-06-E. To receive additional information on Murata Products call 1-800-831-9172.
For more detailed information regarding this product line in Europe, see Catalog No. O05E-3.

CHIP INDUCTORS

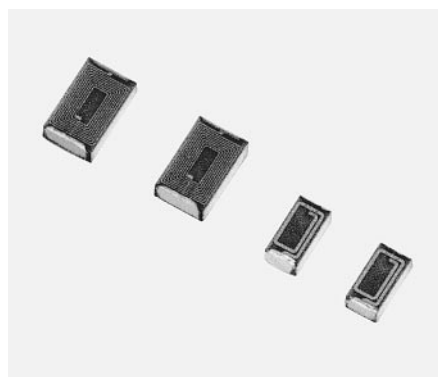
SURFACE MOUNT CHIP INDUCTORS

LQP10A/11A/21A SERIES

NEW

muRata

Innovator in Electronics



The LQP Series is comprised of chip coils with a tight inductance tolerance, $\pm 2\%$, achieved in a small chip area. Murata achieves this by forming the coil with precision film technology.

This coil is excellent in the high-frequency circuits of telecommunication equipment.

FEATURES

- Tight tolerance enables assembly without tuning.

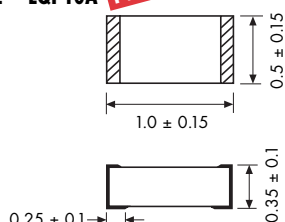
- High SRF due to low stray capacitance provides stable inductance in high frequency circuits.
- External electrodes with nickel barrier structure provide excellent solder heat resistance.

APPLICATIONS

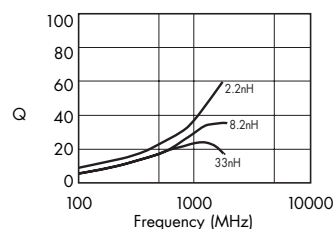
- CDMA, DECT, PHS, PCS
- RF Circuits
- Oscillators

DIMENSIONS: mm

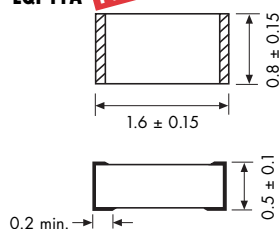
0402 – LQP10A **NEW**



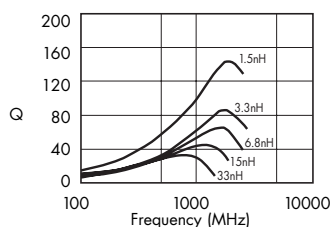
Q CHARACTERISTICS



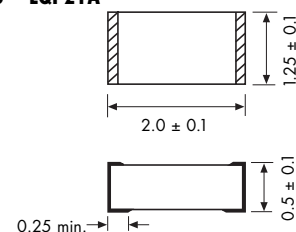
0603 – LQP11A **NEW**



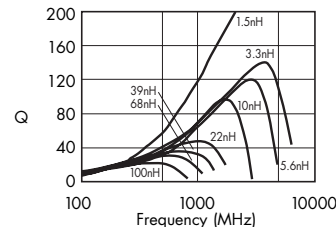
Q CHARACTERISTICS



0805 – LQP21A



Q CHARACTERISTICS



SPECIFICATIONS

Part Number	Inductance			Q			DC Resistance (Ω max.)	Self-resonant Frequency (MHz min.)	Allowable Current (mA)	Operating Temp. Range
	Nominal Value (nH)	Tolerance	Test Frequency (MHz)	Peak Value (Typ.)	Min. Value	Test Frequency (MHz)				
0402	1.0 ~ 33	$\pm 0.2\text{nH}$ ~ $\pm 2\%$	500	21 ~ 30	13	500	0.1 ~ 3.8	2100 ~ 6000	60 ~ 400	-40°C ~ $+85^{\circ}\text{C}$
0603	1.3 ~ 33		500	21 ~ 160	17	500	0.3 ~ 2.8	700 ~ 6000	100 ~ 300	
0805	1.5 ~ 100		300	24 ~ 300	15 ~ 17	300	0.15 ~ 6.0		90 ~ 550	

PART NUMBERING SYSTEM

TYPE	SIZE	CORE CHARACTERISTICS	INDUCTANCE CODE	TOLERANCE	ELECTRODE CONSTRUCTION
LQP: Printed Thin Film	10: 1.0 x 0.5mm (0402) 11: 1.6 x 0.8mm (0603) 21: 2.0 x 1.25mm (0805)	A: Air Coil	4N7: 4.7nH 15N: 15nH R10: 100nH	G: $\pm 2\%$ C: $\pm 0.2\text{nH}$	LQP10/11A 00: Ni + SnPb LQP21A 14: Ni + Ag

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For more detailed information regarding this product line in Europe, see Catalog No. 005E-3.

CHIP
INDUCTORS

CHIP INDUCTORS

SURFACE MOUNT CHIP INDUCTORS

LQN21A SERIES



The LQN21A Series consists of air-core chip coils using a subminiature 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

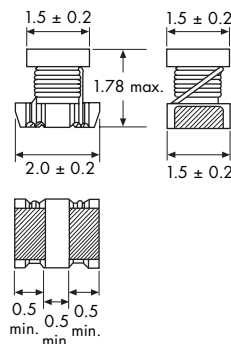
- Broad inductance range (3.3nH to 220nH)
- Tight inductance tolerance
- EIA standard 0806 size
- High self-resonant frequency
- High Q characteristics

APPLICATIONS

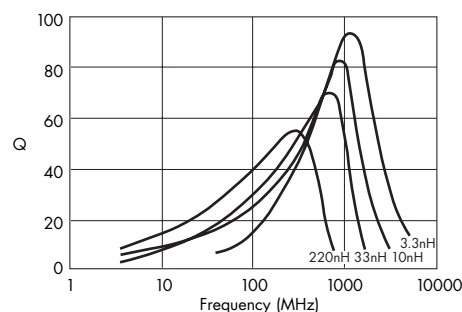
- RF Circuits
- Oscillators

DIMENSIONS: mm

0805 – LQN21A



Q CHARACTERISTICS



SPECIFICATIONS

Part Number	Inductance			Q ※1		DC Resistance (Ω max.)	※2 Self-resonant Frequency (MHz min.)	Allowable Current (mA)	Operating Temperature Range			
	Nominal Value (nH)	Tolerance	Test Frequency (MHz)	Peak Value (Typ.)	Minimum Value							
					Q Value					Test Frequency (MHz)		
★LQN21A3N3D04	3.3	± 0.5nH	100	70	10	250	0.05	6000	910	-25℃ ~ +85℃		
★LQN21A6N8D04	6.8				20		0.11	5400	680			
★LQN21A8N2D04	8.2						0.12	3900	630			
★LQN21A10NJ04	10	± 5%		80	30		0.03	3300	1320			
★LQN21A12NJ04	12			65			0.11	3200	680			
★LQN21A15NJ04	15			70			0.12	2700	630			
★LQN21A18NJ04	18						0.10	2600	690			
★LQN21A22NJ04	22						0.09	2100	720			
★LQN21A27NJ04	27	± 5% or ± 2%		65	40		0.17	2300	540			
★LQN21A33NJ04	33						0.15	1900	570			
★LQN21A39NJ04	39			80		0.09	1700	730				
★LQN21A47NJ04	47			55	200	0.23	1600	450				
★LQN21A56NJ04	56			70		0.26	1500	430				
★LQN21A68NJ04	68			65		0.23	1200	460				
★LQN21A82NJ04	82			60	150	0.42	1100	320				
★LQN21AR10J04	100			70		0.38	750	350				
★LQN21AR12J04	120			50		0.47	750	320				
★LQN21AR15J04	150			45	30	0.47	350	390				
★LQN21AR18J04	180			50	35	100	0.71	700				250
★LQN21AR22J04	220			50			0.70	500				240

※1: Measured with LCR meter YHP4191A, measuring tape 16193A.

※2: Measured with Network Analyzer HP8753C.

PART NUMBERING SYSTEM

LQN	21	A	3N3	D	04	M00
TYPE LQN: Non-epoxy coated	SIZE 21: 2.0 x 1.5mm (0805)	CHARACTERISTICS A: Air Coil	INDUCTANCE CODE 3N3: 3.3nH	TOLERANCE D: ±0.5nH J: ±5% G: ±2%	ELECTRODE CONSTRUCTION 04: Ni + SnPb	UNMARKED

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CHIP INDUCTORS

SURFACE MOUNT CHIP INDUCTORS, WIRE WOUND

LQN1A SERIES



The LQN1A Series is comprised of air-core chip coils having sub-miniature alumina core bobbins. These coils are excellent in high-frequency video and communication applications because of their high Q values at high frequencies and high self-resonant frequencies.

APPLICATIONS

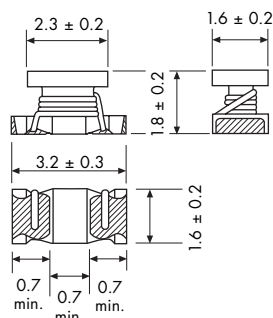
- RF Circuits
- GSM, DECT, PCS
- Oscillators

LQN1A

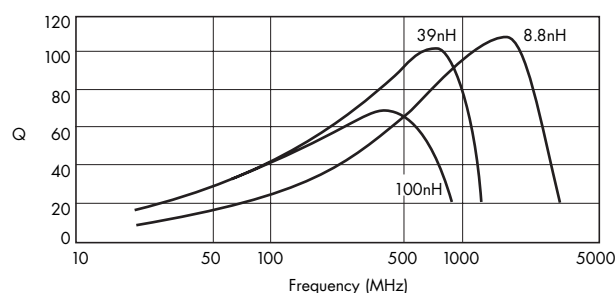
The sub-miniature dimensions (3.2 x 1.6 x 1.8mm) allow parallel mounting on 2.5mm centers. A high self-resonant frequency makes these coils effective for applications from 100MHz up to 3GHz.

DIMENSIONS: mm

1206 – LQN1A



Q CHARACTERISTICS



SPECIFICATIONS

Part Number	Inductance			Q			DC Resistance (Ω)	Self-resonant Frequency (MHz min.)	Allowable Current (mA)	Operating Temperature Range
	Nominal Value (nH)	Tolerance (%)	Measurement Frequency	Peak Value (Typ.)	Min. Value	Measurement Frequency				
★LQN1A8N8J(K)04	8.8	★ ±5 (±10)	100MHz	100	50	436MHz	0.029 ± 40%	1000	750	-25°C ~ +85°C
★LQN1A15NJ(K)04	14.7						0.035 ± 40%		680	
★LQN1A17NJ(K)04	17						0.037 ± 40%		650	
★LQN1A23NJ(K)04	23						0.046 ± 40%		590	
★LQN1A27NJ(K)04	27						0.051 ± 40%		560	
★LQN1A33NJ(K)04	33						0.057 ± 40%		530	
★LQN1A39NJ(K)04	39			90	60		0.067 ± 40%		490	
★LQN1A47NJ(K)04	47						0.110 ± 40%		380	
★LQN1A56NJ(K)04	56						0.140 ± 40%		330	
★LQN1A64NJ(K)04	64						0.180 ± 40%		290	
★LQN1A84NJ(K)04	84						70		0.280 ± 40%	
★LQN1A10J(K)04	100							0.300 ± 40%	900	

PART NUMBERING SYSTEM

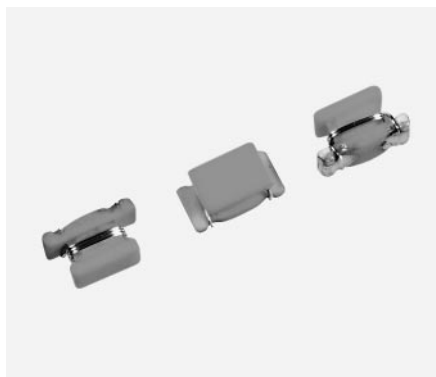
LQN		1	A	47N	J	04	M00	
TYPE	SIZE		CHARACTERISTICS	INDUCTANCE CODE	TOLERANCE	ELECTRODE CONSTRUCTION	UNMARKED	
LQN: Non-epoxy coated	1: 3.2 x 1.6mm (1206)		A: Air Coil	8N8: 8.8nH 47N: 47nH R10: 100nH	J: ±5% K: ±10%	04: Ni + SnPb		

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CHIP INDUCTORS

SURFACE MOUNT CHIP INDUCTORS

LQN1H SERIES



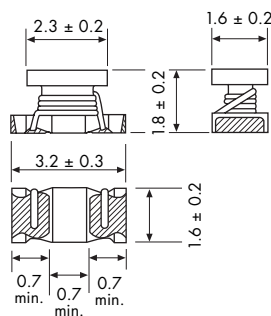
Chip coil LQN1H Series is a wire wound type chip coil using a high frequency ferrite core. Its high Q value at 30MHz ~ 150MHz and low DC resistance are suitable for high frequency resonator circuits use.

APPLICATIONS

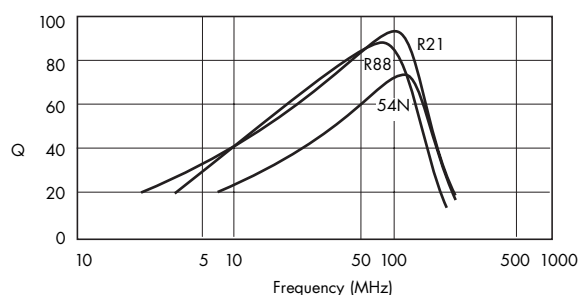
Voltage controlled oscillator, trap, filter circuit built-in mobile communication equipment, cordless phones, various radio equipment, FM radio tuners, TV tuners (VHF low), VIF circuits, etc.

DIMENSIONS: mm

1206 – LQN1H



Q CHARACTERISTICS



SPECIFICATIONS

Part Number	Inductance			Q			DC Resistance (Ω)	Self-resonant Frequency (MHz min.)	Allowable Current (mA)	Operating Temperature Range
	Nominal Value (nH)	Tolerance (%)	Measurement Frequency	Peak Value (typ.)	Nominal Value (min.)	Measurement Frequency				
★LQN1H54NK04	54	±10 (±5)	1MHz	65	50	100MHz	0.035 ± 30%	800	920	-25°C ~ +85°C
★LQN1H95NK04	95			75	60		0.047 ± 30%	650	790	
★LQN1HR14K(J)04	145			80			0.061 ± 30%	500	700	
★LQN1HR21K(J)04	215			85			0.11 ± 30%	430	520	
★LQN1HR29K(J)04	290						0.17 ± 30%	360	420	
★LQN1HR39K(J)04	390						0.26 ± 30%	300	330	
★LQN1HR50K(J)04	500						0.44 ± 30%	270	260	
★LQN1HR61K(J)04	610						0.48 ± 30%	240	250	
★LQN1HR75K(J)04	750						0.79 ± 30%	220	190	
★LQN1HR88K(J)04	880			90			0.86 ± 30%	200	180	

PART NUMBERING SYSTEM

LQN	1	H	54N	K	04	M00	
TYPE LQN: Without Coating	SIZE 1: 3.2 x 1.6mm (1206)	CHARACTERISTICS H: High Q	INDUCTANCE 54N: 54nH	TOLERANCE K: ±10% J: ±5%	ELECTRODE CONSTRUCTION 04: Ni + SnPb	UNMARKED	

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CHIP INDUCTORS

SURFACE MOUNT CHIP INDUCTORS

LQG21N SERIES



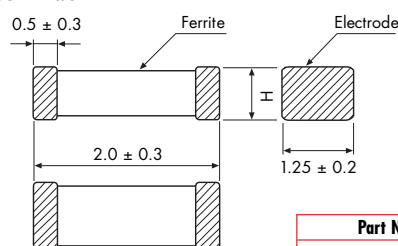
The LQG21N Series are magnetically shielded chip coils which were developed from Murata Electronics' multilayer process technology and magnetic materials. It is one-quarter the size of conventional chip coils and has high reliability.

APPLICATIONS

- Hard drive devices
- Audio Visual equipment
- Telecommunications equipment

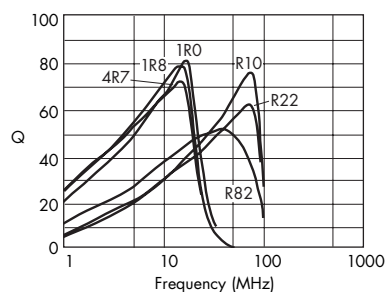
DIMENSIONS: mm

0805 – LQG21N



Part Number	H
LQG21NR10~2R2	0.85 ± 0.2
LQG21N2R7~4R7	1.25 ± 0.2

Q CHARACTERISTICS



SPECIFICATIONS

Part Number	Inductance			Q		DC Resistance (Ω max.)	Self-resonant Frequency (MHz min.)	Allowable Current (mA)	Operating Temperature Range
	Nominal Value (μH)	Tolerance (%)	Measurement Frequency	Nominal Value (min.)	Measurement Frequency				
★LQG21NR10K10	0.10	±10	25MHz	20	25MHz	0.26	340	250	-25°C ~ +85°C
★LQG21NR12K10	0.12					0.29	310		
★LQG21NR15K10	0.15					0.32	270		
★LQG21NR18K10	0.18					0.35	250		
★LQG21NR22K10	0.22					0.38	220		
★LQG21NR27K10	0.27					0.42	200		
★LQG21NR33K10	0.33			0.48		180			
★LQG21NR39K10	0.39			0.53		165	200		
★LQG21NR47K10	0.47			0.57		150			
★LQG21NR56K10	0.56			0.63		140	150		
★LQG21NR68K10	0.68			0.72		125			
★LQG21NR82K10	0.82			0.81		115	50		
★LQG21N1R0K10	1.0		0.40	107					
★LQG21N1R2K10	1.2		0.47	97					
★LQG21N1R5K10	1.5		0.50	87					
★LQG21N1R8K10	1.8		0.57	80					
★LQG21N2R2K10	2.2		0.63	71	30				
★LQG21N2R7K10	2.7		0.69	66					
★LQG21N3R3K10	3.3		0.80	59					
★LQG21N3R9K10	3.9		0.89	53					
★LQG21N4R7K10	4.7		1.00	47					

PART NUMBERING SYSTEM

TYPE LQG: Monolithic	SIZE 21: 2.0 x 1.25mm (0805)	CHARACTERISTICS N = General Use	INDUCTANCE R10: 100nH 1R0: 1μH	TOLERANCE K: ±10%	ELECTRODE CONSTRUCTION Ag + Ni + Sn	PACKAGING T1 = Tape
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