

LQH1N/3N/4N Series



The chip coil LQH/LQN Series comprises subminiature chip inductors wound on a special ferrite core made possible by an automatic winding technique developed by Murata Electronics. These inductors have a high Q at high frequencies and low DC resistance, making them suited for enhancing the performance of electronic circuits in video, communications and audio equipment.

LQH1N

The sub-miniature dimensions (3.2 x 1.6 x 1.8mm) allow parallel mounting on 2.5mm centers. This series is suitable for portable audio-visual equipment.

LQH3N

High Q value makes the series suitable for circuits up to 100MHz in frequency. This series is excellent for video equipment.

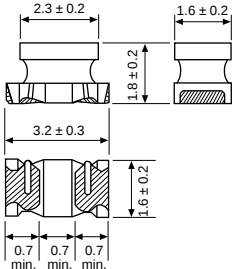
LQH(N)4N

This series is available with high inductance values and high current capacity. At 10 μ H, up to 450mA designs are possible, resulting in excellent performance when the series is used as a choke coil.

PART NUMBERING SYSTEM

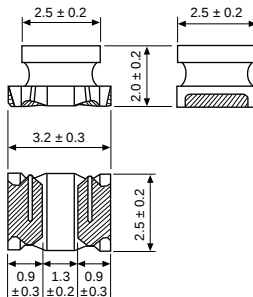
TYPE	SIZE	APPLICATION	INDUCTANCE CODE	TOLERANCE	ELECTRODE MATERIAL	UNMARKED
LQH: Epoxy coating on winding	1: 3.2 x 1.6mm (1206) 3: 3.2 x 2.5mm (1210) 4: 4.5 x 3.2mm (1812)	N: General Use	R22: 0.22 μ H 2R2: 2.2 μ H 220: 22 μ H 221: 220 μ H 102: 1000 μ H	J: $\pm$ 5% K: $\pm$ 10% M: $\pm$ 20%	04/34: Nickel & Solder	

SPECIFICATIONS

Dimensions: mm	Part Number	Inductance			Q		DC Resistance (Ohms)	Self-resonant Frequency (MHz min.)	Allowable Current (mA)	Operating Temp. Range
		Nominal Value (μH)	Tolerance (%)	Measurement Frequency (MHz)	Nominal Value (min.)	Measurement Frequency (MHz)				
	*LQH1NR15M(K)04	0.15	*±20 (±10)	1	20	25	0.39 ± 40%	250	250	-25°C ~ +85°C
	*LQH1NR22M(K)04	0.22					0.43 ± 40%	250	240	
	*LQH1NR33M(K)04	0.33					0.45 ± 40%	250	230	
	*LQH1NR47M(K)04	0.47					0.83 ± 40%	200	215	
	*LQH1NR56M(K)04	0.56					0.61 ± 40%	180	200	
	*LQH1NR68M(K)04	0.68					0.67 ± 40%	160	190	
	*LQH1NR82M(K)04	0.82					0.73 ± 40%	120	185	
	*LQH1N1R0M(K)04	1.0	±20 *(±10) (±5)		35	10	0.49 ± 30%	100	175	
	*LQH1N1R2M(K)04	1.2					0.9 ± 30%	90	165	
	*LQH1N1R5M(K.J)04	1.5					1.0 ± 30%	75	155	
	*LQH1N1R8M(K.J)04	1.8					1.6 ± 30%	60	150	
	*LQH1N2R2M(K.J)04	2.2					0.7 ± 30%	50	140	
	*LQH1N2R7M(K.J)04	2.7					0.55 ± 30%	43	135	
	*LQH1N3R3M(K.J)04	3.3	±20 *(±10) (±5)				8	1.4 ± 30%	38	
	*LQH1N3R9M(K.J)04	3.9			1.5 ± 30%	35		125		
	*LQH1N4R7M(K.J)04	4.7			1.7 ± 30%	31		120		
	*LQH1N5R6M(K.J)04	5.6			1.8 ± 30%	28		115		
	*LQH1N6R8M(K.J)04	6.8			2.0 ± 30%	25		110		
	*LQH1N8R2M(K.J)04	8.2			2.2 ± 30%	23		105		
	*LQH1N100K(J)04	10	*±10 (±5)		5	2.5 ± 30%		20	100	
	*LQH1N120K(J)04	12				2.7 ± 30%	18	95		
	*LQH1N150K(J)04	15				3.0 ± 30%	16	90		
	*LQH1N180K(J)04	18				3.4 ± 30%	15	85		
	*LQH1N220K(J)04	22				3.1 ± 30%	14	85		
	*LQH1N270K(J)04	27				3.4 ± 30%	13	85		
	*LQH1N330K(J)04	33				3.8 ± 30%	12	80		
	*LQH1N390K(J)04	39			40	2.5	7.2 ± 30%	11	55	
	*LQH1N470K(J)04	47					8.0 ± 30%	10	55	
	*LQH1N560K(J)04	56					8.9 ± 30%	9.0	50	
	*LQH1N680K(J)04	68					9.9 ± 30%	8.5	50	
	*LQH1N820K(J)04	82					11 ± 30%	7.5	45	
	*LQH1N101K(J)04	100					12 ± 30%	7.0	45	

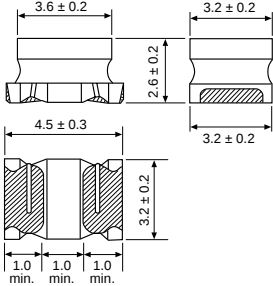
* Available as standard through authorized Murata Electronics Distributors.

SPECIFICATIONS

Dimensions: mm	Part Number	Inductance			Q		DC Resistance (Ohms) max.	Self-resonant Frequency (MHz min.)	Allowable Current (mA)	Operating Temp. Range
		Nominal Value (μH)	Tolerance (%)	Measurement Frequency (MHz)	Nominal Value (min.)	Measurement Frequency				
	*LQH3NR10M34	0.10	★±20	1	20	25.2MHz	0.25	200	700	-25°C ~ +85°C
	*LQH3NR18M34	0.18					0.25	200	650	
	*LQH3NR27M34	0.27					0.25	200	600	
	*LQH3NR39M34	0.39					0.25	200	530	
	*LQH3NR56M34	0.56					0.25	160	530	
	*LQH3NR68M34	0.68					0.25	160	470	
	*LQH3NR82M34	0.82					0.25	120	450	
	*LQH3N1R0M34	1.0					0.5	100	445	
	*LQH3N1R2M34	1.2	(±20) ★±10		20	1MHz	0.6	100	425	
	*LQH3N1R5K(M)34	1.5					0.6	75	400	
	*LQH3N1R8K(M)34	1.8					0.7	60	390	
	*LQH3N2R2K(M)34	2.2					0.8	50	370	
	*LQH3N2R7K(M)34	2.7					0.9	43	320	
	*LQH3N3R3K(M)34	3.3					1.0	38	300	
	*LQH3N3R9K(M)34	3.9					1.1	35	290	
	*LQH3N4R7K(M)34	4.7					1.2	31	270	
	*LQH3N5R6K(M)34	5.6					1.3	28	250	
	*LQH3N6R8K(M)34	6.8					1.5	25	240	
	*LQH3N8R2K(M)34	8.2	(±10) ★±5				35	1MHz	1.6	
	*LQH3N100J(K)34	10			1.8	20			190	
	*LQH3N120J(K)34	12			2.0	18			180	
	*LQH3N150J(K)34	15			2.2	16			170	
	*LQH3N180J(K)34	18			2.5	15			165	
	*LQH3N220J(K)34	22			2.8	14			150	
	*LQH3N270J(K)34	27			3.1	13	125			
	*LQH3N330J(K)34	33			40	796kHz	3.5	12	115	
	*LQH3N390J(K)34	39					3.9	11	110	
	*LQH3N470J(K)34	47					4.3	11	100	
	*LQH3N560J(K)34	56					4.9	10	85	
	*LQH3N680J(K)34	68					5.5	9.0	80	
	*LQH3N820J(K)34	82					6.2	8.5	70	
	*LQH3N101J(K)34	100					7.0	8.0	80	
	*LQH3N121J(K)34	120					8.0	7.5	75	
	*LQH3N151J(K)34	150					9.3	7.0	70	
	*LQH3N181J(K)34	180	10.2				6.0	65		
	*LQH3N221J(K)34	220	11.8				5.5	65		
	*LQH3N271J(K)34	270	12.5				5.0	65		
	*LQH3N331J(K)34	330	13.0				5.0	65		
	*LQH3N391J(K)34	390	50		22.0		5.0	50		
	*LQH3N471J(K)34	470			25.0		5.0	45		
	*LQH3N561J(K)34	560			28.0		5.0	40		

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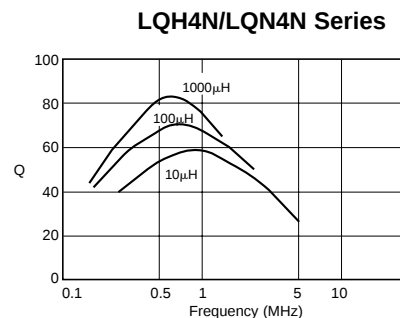
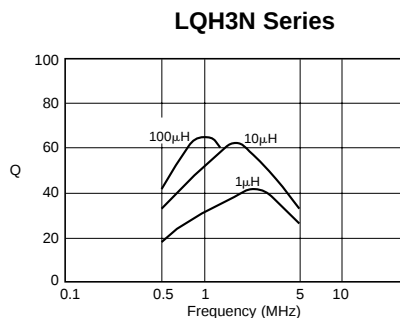
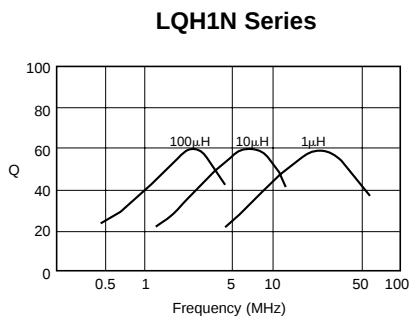
SPECIFICATIONS

Dimensions: mm	Part Number	Inductance			Q		DC Resistance (Ohms) max.	Self-resonant Frequency (MHz min.)	Allowable Current (mA)	Operating Temp. Range	
		Nominal Value (μH)	Tolerance (%)	Measurement Frequency	Nominal Value (min.)	Measurement Frequency					
	LQH4N1R0M04	1.0	★±20	1MHz	20	1MHz	0.20	120	500	-25°C ~ +85°C	
	LQH4N1R2M04	1.2					100				
	LQH4N1R5M04	1.5					85				
	LQH4N1R8M04	1.8					75				
	LQH4N2R2M04	2.2					62				
	LQH4N2R7M04	2.7					0.32	53			
	LQH4N3R3M04	3.3					0.35	47			
	LQH4N3R9M04	3.9					0.38	41			
	LQH4N4R7M(K)04	4.7	★±20 ★(±10)		30		0.40	38	450		
	LQH4N5R6M(K)04	5.6					0.47	33			
	LQH4N6R8M(K)04	6.8					0.50	31			
	LQH4N8R2M(K)04	8.2					0.56	27			
	★LQH4N100K(J)04	10	★±10 ★(±5)		35		0.56	23	400		
	★LQH4N120K(J)04	12					0.62	21	380		
	★LQH4N150K(J)04	15					0.73	19	360		
	★LQH4N180K(J)04	18					0.82	17	340		
	★LQH4N220K(J)04	22					0.94	15	320		
	★LQH4N270K(J)04	27					1.1	14	300		
	★LQH4N330K(J)04	33					1.2	12	270		
	★LQH4N390K(J)04	39					1.4	11	240		
	★LQH4N470K(J)04	47					1.5	10	220		
	★LQH4N560K(J)04	56					1.7	9.3	200		
	★LQH4N680K(J)04	68					1.9	8.4	180		
	★LQH4N820K(J)04	82					2.2	7.5	170		
	★LQH4N101K(J)04	100				40	796kHz	2.5	6.8		160
	★LQH4N121K(J)04	120						3.0	6.2		150
	★LQH4N151K(J)04	150						3.7	5.5		130
	★LQH4N181K(J)04	180						4.5	5.0		120
	★LQH4N221K(J)04	220						5.4	4.5		110
	★LQH4N271K(J)04	270						6.8	4.0		100
	★LQH4N331K(J)04	330						8.2	3.6		95
	★LQH4N391K(J)04	390						9.7	3.3		90
	★LQH4N471K(J)04	470						11.8	3.0		80
	★LQH4N561K(J)04	560						14.5	2.7		70
	★LQH4N681K(J)04	680						17.0	2.5		65
	★LQH4N821K(J)04	820						20.5	2.2		60
	★LQH4N102K(J)04	1000		1kHz			252kHz	25.0	2.0		50
	★LQH4N122K(J)04	1200	30.0		1.8			45			
	★LQH4N152K(J)04	1500	37.0		1.6			40			
	★LQN4N182K(J)04	1800	45.0		1.5			35			
	★LQN4N222K(J)04	2200	50.0		1.3			30			

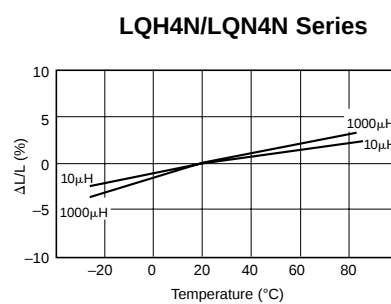
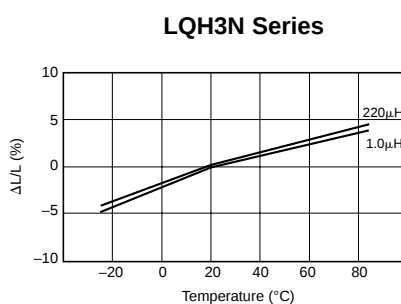
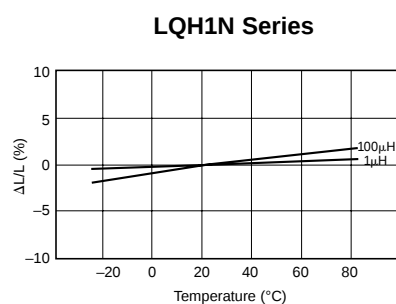
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TYPICAL ELECTRICAL CHARACTERISTICS

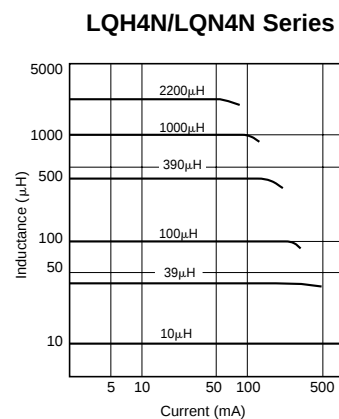
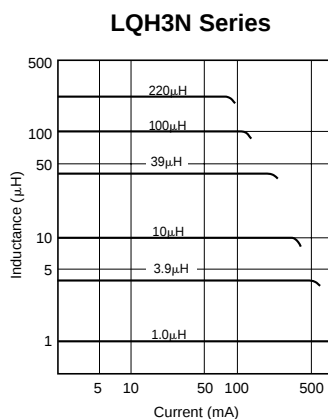
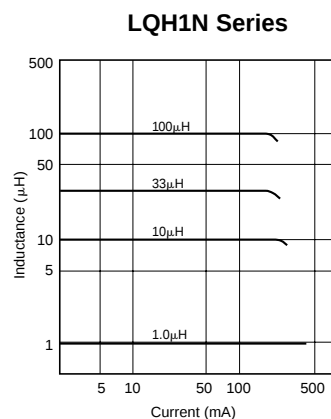
Q-FREQUENCY CHARACTERISTICS



INDUCTANCE-TEMPERATURE CHARACTERISTICS



INDUCTANCE-CURRENT CHARACTERISTICS



COUPLING FACTOR

