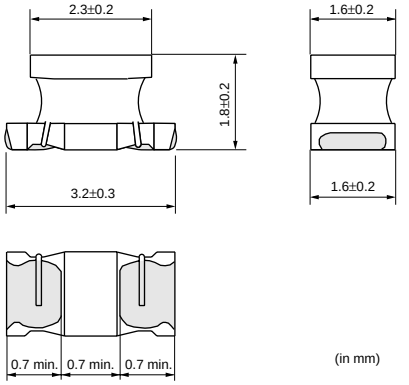
Chip Coils

for General Use Winding Type LQH31M/LQH32M/LQH43M (N) Series

LQH31M Series

LQH31M series consists of winding type chip coils using Murata's original ferrite core and auto winding technology.



■ Features

1. Wide inductance range from 0.15 to 100 micro H
2. High Q value at high frequencies and low DC resistance
3. Small size (3.2x1.6x1.8mm) and tight pitch mounting
4. Low DC resistance and large current
5. Both flow and reflow soldering heat resistance

Part Number	Inductance (μH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (min.) (MHz)	EIA
LQH31MNR15K03	0.15 ±10%	1	250	0.39 ±40%	20	25	250	1206
LQH31MNR22K03	0.22 ±10%	1	240	0.43 ±40%	20	25	250	1206
LQH31MNR33K03	0.33 ±10%	1	230	0.45 ±40%	30	25	250	1206
LQH31MNR47K03	0.47 ±10%	1	215	0.83 ±40%	30	25	200	1206
LQH31MNR56K03	0.56 ±10%	1	200	0.61 ±40%	30	25	180	1206
LQH31MNR68K03	0.68 ±10%	1	190	0.67 ±40%	30	25	160	1206
LQH31MNR82K03	0.82 ±10%	1	185	0.73 ±40%	30	25	120	1206
LQH31MN1R0K03	1.0 ±10%	1	175	0.49 ±30%	35	10	100	1206
LQH31MN1R2K03	1.2 ±10%	1	165	0.9 ±30%	35	10	90	1206
LQH31MN1R5J03	1.5 ±5%	1	155	1.0 ±30%	35	10	75	1206
LQH31MN1R5K03	1.5 ±10%	1	155	1.0 ±30%	35	10	75	1206
LQH31MN1R8J03	1.8 ±5%	1	150	1.6 ±30%	35	10	60	1206
LQH31MN1R8K03	1.8 ±10%	1	150	1.6 ±30%	35	10	60	1206
LQH31MN2R2J03	2.2 ±5%	1	140	0.7 ±30%	35	10	50	1206
LQH31MN2R2K03	2.2 ±10%	1	140	0.7 ±30%	35	10	50	1206
LQH31MN2R7J03	2.7 ±5%	1	135	0.55 ±30%	35	10	43	1206
LQH31MN2R7K03	2.7 ±10%	1	135	0.55 ±30%	35	10	43	1206
LQH31MN3R3J03	3.3 ±5%	1	130	1.4 ±30%	35	8	38	1206
LQH31MN3R3K03	3.3 ±10%	1	130	1.4 ±30%	35	8	38	1206
LQH31MN3R9J03	3.9 ±5%	1	125	1.5 ±30%	35	8	35	1206
LQH31MN3R9K03	3.9 ±10%	1	125	1.5 ±30%	35	8	35	1206
LQH31MN4R7J03	4.7 ±5%	1	120	1.7 ±30%	35	8	31	1206
LQH31MN4R7K03	4.7 ±10%	1	120	1.7 ±30%	35	8	31	1206
LQH31MN5R6J03	5.6 ±5%	1	115	1.8 ±30%	35	8	28	1206
LQH31MN5R6K03	5.6 ±10%	1	115	1.8 ±30%	35	8	28	1206
LQH31MN6R8J03	6.8 ±5%	1	110	2.0 ±30%	35	8	25	1206
LQH31MN6R8K03	6.8 ±10%	1	110	2.0 ±30%	35	8	25	1206
LQH31MN8R2J03	8.2 ±5%	1	105	2.2 ±30%	35	8	23	1206
LQH31MN8R2K03	8.2 ±10%	1	105	2.2 ±30%	35	8	23	1206
LQH31MN100J03	10 ±5%	1	100	2.5 ±30%	35	5	20	1206
LQH31MN100K03	10 ±10%	1	100	2.5 ±30%	35	5	20	1206
LQH31MN120J03	12 ±5%	1	95	2.7 ±30%	35	5	18	1206
LQH31MN120K03	12 ±10%	1	95	2.7 ±30%	35	5	18	1206
LQH31MN150J03	15 ±5%	1	90	3.0 ±30%	35	5	16	1206
LQH31MN150K03	15 ±10%	1	90	3 ±30%	35	5	16	1206
LQH31MN180J03	18 ±5%	1	85	3.4 ±30%	35	5	15	1206

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Part Number	Inductance (μH)	Test Frequency (MHz)	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency (MHz)	Self Resonance Frequency (min.) (MHz)	EIA
LQH31MN180K03	18 ±10%	1	85	3.4 ±30%	35	5	15	1206
LQH31MN220J03	22 ±5%	1	85	3.1 ±30%	40	2.5	14	1206
LQH31MN220K03	22 ±10%	1	85	3.1 ±30%	40	2.5	14	1206
LQH31MN270J03	27 ±5%	1	85	3.4 ±30%	40	2.5	13	1206
LQH31MN270K03	27 ±10%	1	85	3.4 ±30%	40	2.5	13	1206
LQH31MN330J03	33 ±5%	1	80	3.8 ±30%	40	2.5	12	1206
LQH31MN330K03	33 ±10%	1	80	3.8 ±30%	40	2.5	12	1206
LQH31MN390J03	39 ±5%	1	55	7.2 ±30%	40	2.5	11	1206
LQH31MN390K03	39 ±10%	1	55	7.2 ±30%	40	2.5	11	1206
LQH31MN470J03	47 ±5%	1	55	8 ±30%	40	2.5	10	1206
LQH31MN470K03	47 ±10%	1	55	8.0 ±30%	40	2.5	10	1206
LQH31MN560J03	56 ±5%	1	50	8.9 ±30%	40	2.5	9	1206
LQH31MN560K03	56 ±10%	1	50	8.9 ±30%	40	2.5	9	1206
LQH31MN680J03	68 ±5%	1	50	9.9 ±30%	40	2.5	8.5	1206
LQH31MN680K03	68 ±10%	1	50	9.9 ±30%	40	2.5	8.5	1206
LQH31MN820J03	82 ±5%	1	45	11 ±30%	40	2.5	7.5	1206
LQH31MN820K03	82 ±10%	1	45	11 ±30%	40	2.5	7.5	1206
LQH31MN101J03	100 ±5%	1	45	12 ±30%	40	2.5	7	1206
LQH31MN101K03	100 ±10%	1	45	12 ±30%	40	2.5	7	1206

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

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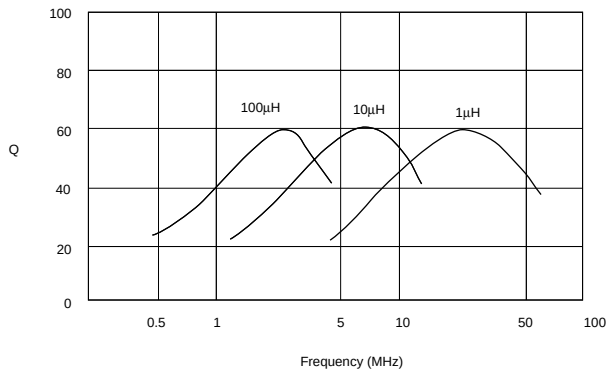
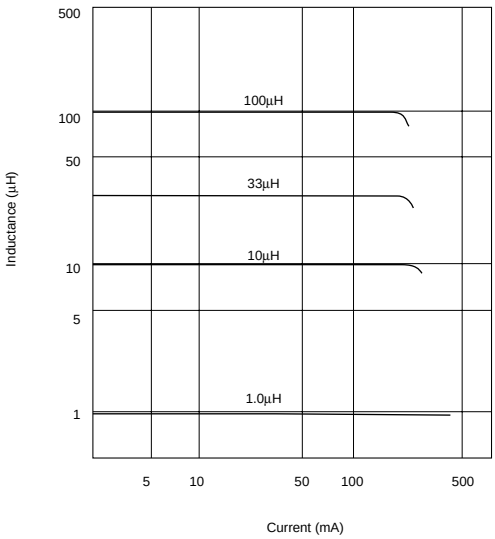
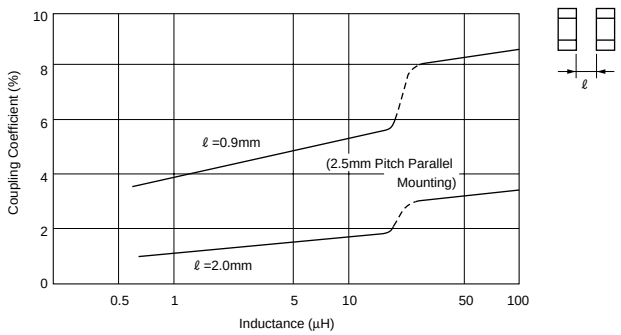
■ Q-Frequency Characteristics



■ Inductance-Current Characteristics

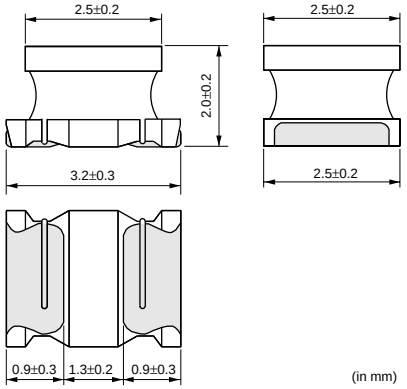


■ Coupling Coefficient



LQH32M Series

LQH32M series consists of miniature chip inductors wound on a special ferrite core.



(in mm)

■ Features

1. High Q value at high frequencies and low DC resistance
2. Wide inductance range from 1.0 to 560 micro H

Part Number	Inductance (μH)	Test Frequency	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency	Self Resonance Frequency (min.) (MHz)	EIA
LQH32MN1R0M23	1.0 ±20%	1MHz	445	0.5 max.	20	1MHz	100	1210
LQH32MN1R2M23	1.2 ±20%	1MHz	425	0.6 max.	20	1MHz	100	1210
LQH32MN1R5K23	1.5 ±10%	1MHz	400	0.6 max.	20	1MHz	75	1210
LQH32MN1R8K23	1.8 ±10%	1MHz	390	0.7 max.	20	1MHz	60	1210
LQH32MN2R2K23	2.2 ±10%	1MHz	370	0.8 max.	20	1MHz	50	1210
LQH32MN2R7K23	2.7 ±10%	1MHz	320	0.9 max.	20	1MHz	43	1210
LQH32MN3R3K23	3.3 ±10%	1MHz	300	1.0 max.	20	1MHz	38	1210
LQH32MN3R9K23	3.9 ±10%	1MHz	290	1.1 max.	20	1MHz	35	1210
LQH32MN4R7K23	4.7 ±10%	1MHz	270	1.2 max.	20	1MHz	31	1210
LQH32MN5R6K23	5.6 ±10%	1MHz	250	1.3 max.	20	1MHz	28	1210
LQH32MN6R8K23	6.8 ±10%	1MHz	240	1.5 max.	20	1MHz	25	1210
LQH32MN8R2K23	8.2 ±10%	1MHz	225	1.6 max.	20	1MHz	23	1210
LQH32MN100J23	10 ±5%	1MHz	190	1.8 max.	35	1MHz	20	1210
LQH32MN100K23	10 ±10%	1MHz	190	1.8 max.	35	1MHz	20	1210
LQH32MN120J23	12 ±5%	1MHz	180	2.0 max.	35	1MHz	18	1210
LQH32MN120K23	12 ±10%	1MHz	180	2.0 max.	35	1MHz	18	1210
LQH32MN150J23	15 ±5%	1MHz	170	2.2 max.	35	1MHz	16	1210
LQH32MN150K23	15 ±10%	1MHz	170	2.2 max.	35	1MHz	16	1210
LQH32MN180J23	18 ±5%	1MHz	165	2.5 max.	35	1MHz	15	1210
LQH32MN180K23	18 ±10%	1MHz	165	2.5 max.	35	1MHz	15	1210
LQH32MN220J23	22 ±5%	1MHz	150	2.8 max.	35	1MHz	14	1210
LQH32MN220K23	22 ±10%	1MHz	150	2.8 max.	35	1MHz	14	1210
LQH32MN270J23	27 ±5%	1MHz	125	3.1 max.	35	1MHz	13	1210
LQH32MN270K23	27 ±10%	1MHz	125	3.1 max.	35	1MHz	13	1210
LQH32MN330J23	33 ±5%	1MHz	115	3.5 max.	40	1MHz	12	1210
LQH32MN330K23	33 ±10%	1MHz	115	3.5 max.	40	1MHz	12	1210
LQH32MN390J23	39 ±5%	1MHz	110	3.9 max.	40	1MHz	11	1210
LQH32MN390K23	39 ±10%	1MHz	110	3.9 max.	40	1MHz	11	1210
LQH32MN470J23	47 ±5%	1MHz	100	4.3 max.	40	1MHz	11	1210
LQH32MN470K23	47 ±10%	1MHz	100	4.3 max.	40	1MHz	11	1210
LQH32MN560J23	56 ±5%	1MHz	85	4.9 max.	40	1MHz	10	1210
LQH32MN560K23	56 ±10%	1MHz	85	4.9 max.	40	1MHz	10	1210
LQH32MN680J23	68 ±5%	1MHz	80	5.5 max.	40	1MHz	9	1210
LQH32MN680K23	68 ±10%	1MHz	80	5.5 max.	40	1MHz	9	1210
LQH32MN820J23	82 ±5%	1MHz	70	6.2 max.	40	1MHz	8.5	1210
LQH32MN820K23	82 ±10%	1MHz	70	6.2 max.	40	1MHz	8.5	1210
LQH32MN101J23	100 ±5%	1MHz	80	7.0 max.	40	796kHz	8	1210
LQH32MN101K23	100 ±10%	1MHz	80	7.0 max.	40	796kHz	8	1210
LQH32MN121J23	120 ±5%	1MHz	75	8.0 max.	40	796kHz	7.5	1210
LQH32MN121K23	120 ±10%	1MHz	75	8.0 max.	40	796kHz	7.5	1210
LQH32MN151J23	150 ±5%	1MHz	70	9.3 max.	40	796kHz	7	1210
LQH32MN151K23	150 ±10%	1MHz	70	9.3 max.	40	796kHz	7	1210

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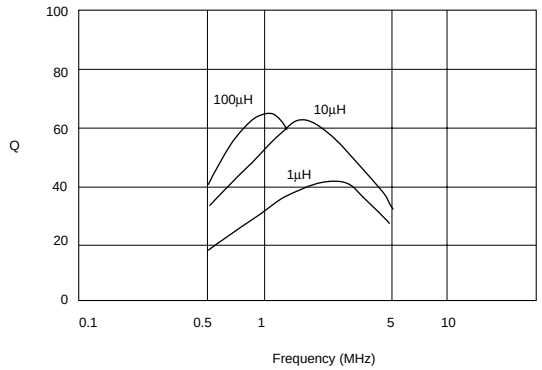
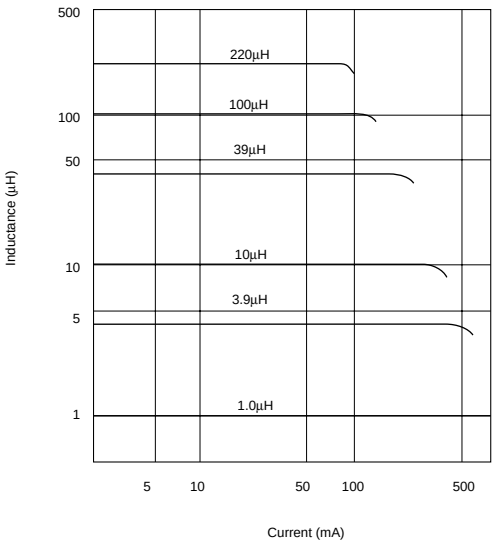
Part Number	Inductance (μH)	Test Frequency	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency	Self Resonance Frequency (min.) (MHz)	EIA
LQH32MN181J23	180 ±5%	1MHz	65	10.2 max.	40	796kHz	6	1210
LQH32MN181K23	180 ±10%	1MHz	65	10.2 max.	40	796kHz	6	1210
LQH32MN221J23	220 ±5%	1MHz	65	11.8 max.	40	796kHz	5.5	1210
LQH32MN221K23	220 ±10%	1MHz	65	11.8 max.	40	796kHz	5.5	1210
LQH32MN271J23	270 ±5%	1MHz	65	12.5 max.	40	796kHz	5	1210
LQH32MN271K23	270 ±10%	1MHz	65	12.5 max.	40	796kHz	5	1210
LQH32MN331J23	330 ±5%	1MHz	65	13.0 max.	40	796kHz	5	1210
LQH32MN331K23	330 ±10%	1MHz	65	13.0 max.	40	796kHz	5	1210
LQH32MN391J23	390 ±5%	1MHz	50	22.0 max.	50	796kHz	5	1210
LQH32MN391K23	390 ±10%	1MHz	50	22.0 max.	50	796kHz	5	1210
LQH32MN471J23	470 ±5%	1kHz	45	25.0 max.	50	796kHz	5	1210
LQH32MN471K23	470 ±10%	1kHz	45	25.0 max.	50	796kHz	5	1210
LQH32MN561J23	560 ±5%	1kHz	40	28.0 max.	50	796kHz	5	1210
LQH32MN561K23	560 ±10%	1kHz	40	28.0 max.	50	796kHz	5	1210

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

■ Q-Frequency Characteristics



■ Inductance-Current Characteristics



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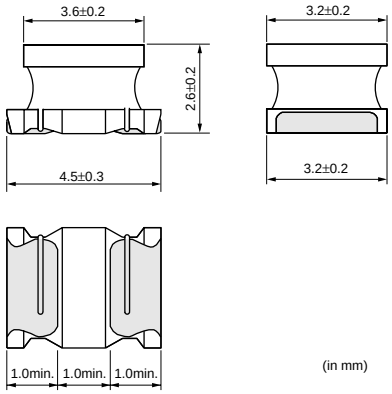
LQH43M/N Series

LQH43M/N series consists of winding type chip coils for general use by Murata's original auto winding technology and ferrite core.



(in mm)

■ Features

1. High Q value at high frequency and low DC resistance
2. Wide inductance range from 1.0 to 2200 micro H
3. Large current and large inductance

Part Number	Inductance (μH)	Test Frequency	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency	Self Resonance Frequency (min.) (MHz)	EIA
LQH43MN1R0M03	1.0 ±20%	1MHz	500	0.20 max.	20	1MHz	120	1812
LQH43MN1R2M03	1.2 ±20%	1MHz	500	0.20 max.	20	1MHz	100	1812
LQH43MN1R5M03	1.5 ±20%	1MHz	500	0.30 max.	20	1MHz	85	1812
LQH43MN1R8M03	1.8 ±20%	1MHz	500	0.30 max.	20	1MHz	75	1812
LQH43MN2R2M03	2.2 ±20%	1MHz	500	0.30 max.	20	1MHz	62	1812
LQH43MN2R7M03	2.7 ±20%	1MHz	500	0.32 max.	20	1MHz	53	1812
LQH43MN3R3M03	3.3 ±20%	1MHz	500	0.35 max.	20	1MHz	47	1812
LQH43MN3R9M03	3.9 ±20%	1MHz	500	0.38 max.	20	1MHz	41	1812
LQH43MN4R7K03	4.7 ±10%	1MHz	500	0.40 max.	30	1MHz	38	1812
LQH43MN5R6K03	5.6 ±10%	1MHz	500	0.47 max.	30	1MHz	33	1812
LQH43MN6R8K03	6.8 ±10%	1MHz	450	0.50 max.	30	1MHz	31	1812
LQH43MN8R2K03	8.2 ±10%	1MHz	450	0.56 max.	30	1MHz	27	1812
LQH43MN100J03	10 ±5%	1MHz	400	0.56 max.	35	1MHz	23	1812
LQH43MN100K03	10 ±10%	1MHz	400	0.56 max.	35	1MHz	23	1812
LQH43MN120J03	12 ±5%	1MHz	380	0.62 max.	35	1MHz	21	1812
LQH43MN120K03	12 ±10%	1MHz	380	0.62 max.	35	1MHz	21	1812
LQH43MN150J03	15 ±5%	1MHz	360	0.73 max.	35	1MHz	19	1812
LQH43MN150K03	15 ±10%	1MHz	360	0.73 max.	35	1MHz	19	1812
LQH43MN180J03	18 ±5%	1MHz	340	0.82 max.	35	1MHz	17	1812
LQH43MN180K03	18 ±10%	1MHz	340	0.82 max.	35	1MHz	17	1812
LQH43MN220J03	22 ±5%	1MHz	320	0.94 max.	35	1MHz	15	1812
LQH43MN220K03	22 ±10%	1MHz	320	0.94 max.	35	1MHz	15	1812
LQH43MN270J03	27 ±5%	1MHz	300	1.1 max.	35	1MHz	14	1812
LQH43MN270K03	27 ±10%	1MHz	300	1.1 max.	35	1MHz	14	1812
LQH43MN330J03	33 ±5%	1MHz	270	1.2 max.	35	1MHz	12	1812
LQH43MN330K03	33 ±10%	1MHz	270	1.2 max.	35	1MHz	12	1812
LQH43MN390J03	39 ±5%	1MHz	240	1.4 max.	35	1MHz	11	1812
LQH43MN390K03	39 ±10%	1MHz	240	1.4 max.	35	1MHz	11	1812
LQH43MN470J03	47 ±5%	1MHz	220	1.5 max.	35	1MHz	10	1812
LQH43MN470K03	47 ±10%	1MHz	220	1.5 max.	35	1MHz	10	1812
LQH43MN560J03	56 ±5%	1MHz	200	1.7 max.	35	1MHz	9.3	1812
LQH43MN560K03	56 ±10%	1MHz	200	1.7 max.	35	1MHz	9.3	1812
LQH43MN680J03	68 ±5%	1MHz	180	1.9 max.	35	1MHz	8.4	1812
LQH43MN680K03	68 ±10%	1MHz	180	1.9 max.	35	1MHz	8.4	1812
LQH43MN820J03	82 ±5%	1MHz	170	2.2 max.	35	1MHz	7.5	1812
LQH43MN820K03	82 ±10%	1MHz	170	2.2 max.	35	1MHz	7.5	1812
LQH43MN101J03	100 ±5%	1MHz	160	2.5 max.	40	796kHz	6.8	1812
LQH43MN101K03	100 ±10%	1MHz	160	2.5 max.	40	796kHz	6.8	1812
LQH43MN121J03	120 ±5%	1MHz	150	3.0 max.	40	796kHz	6.2	1812
LQH43MN121K03	120 ±10%	1MHz	150	3.0 max.	40	796kHz	6.2	1812
LQH43MN151J03	150 ±5%	1MHz	130	3.7 max.	40	796kHz	5.5	1812
LQH43MN151K03	150 ±10%	1MHz	130	3.7 max.	40	796kHz	5.5	1812

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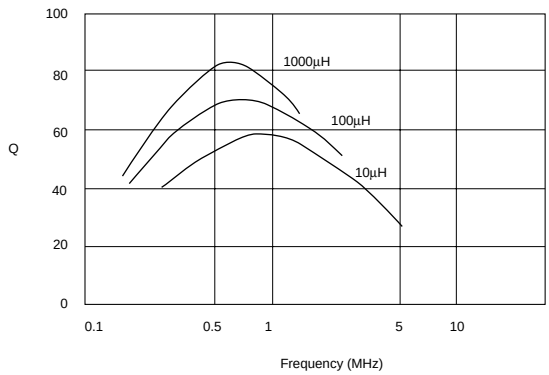
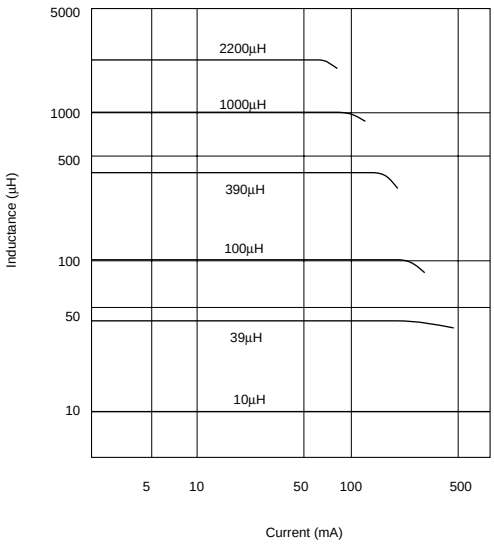
Part Number	Inductance (μH)	Test Frequency	Rated Current (mA)	DC Resistance (ohm)	Q (min.)	Test Frequency	Self Resonance Frequency (min.) (MHz)	EIA
LQH43MN181J03	180 ±5%	1MHz	120	4.5 max.	40	796kHz	5	1812
LQH43MN181K03	180 ±10%	1MHz	120	4.5 max.	40	796kHz	5	1812
LQH43MN221J03	220 ±5%	1MHz	110	5.4 max.	40	796kHz	4.5	1812
LQH43MN221K03	220 ±10%	1MHz	110	5.4 max.	40	796kHz	4.5	1812
LQH43MN271J03	270 ±5%	1MHz	100	6.8 max.	40	796kHz	4	1812
LQH43MN271K03	270 ±10%	1MHz	100	6.8 max.	40	796kHz	4	1812
LQH43MN331J03	330 ±5%	1MHz	95	8.2 max.	40	796kHz	3.6	1812
LQH43MN331K03	330 ±10%	1MHz	95	8.2 max.	40	796kHz	3.6	1812
LQH43MN391J03	390 ±5%	1MHz	90	9.7 max.	40	796kHz	3.3	1812
LQH43MN391K03	390 ±10%	1MHz	90	9.7 max.	40	796kHz	3.3	1812
LQH43MN471J03	470 ±5%	1kHz	80	11.8 max.	40	796kHz	3	1812
LQH43MN471K03	470 ±10%	1kHz	80	11.8 max.	40	796kHz	3	1812
LQH43MN561J03	560 ±5%	1kHz	70	14.5 max.	40	796kHz	2.7	1812
LQH43MN561K03	560 ±10%	1kHz	70	14.5 max.	40	796kHz	2.7	1812
LQH43MN681J03	680 ±5%	1kHz	65	17.0 max.	40	796kHz	2.5	1812
LQH43MN681K03	680 ±10%	1kHz	65	17.0 max.	40	796kHz	2.5	1812
LQH43MN821J03	820 ±5%	1kHz	60	20.5 max.	40	796kHz	2.2	1812
LQH43MN821K03	820 ±10%	1kHz	60	20.5 max.	40	796kHz	2.2	1812
LQH43MN102J03	1000 ±5%	1kHz	50	25.0 max.	40	252kHz	2	1812
LQH43MN102K03	1000 ±10%	1kHz	50	25.0 max.	40	252kHz	2	1812
LQH43MN122J03	1200 ±5%	1kHz	45	30.0 max.	40	252kHz	1.8	1812
LQH43MN122K03	1200 ±10%	1kHz	45	30.0 max.	40	252kHz	1.8	1812
LQH43MN152J03	1500 ±5%	1kHz	40	37.0 max.	40	252kHz	1.6	1812
LQH43MN152K03	1500 ±10%	1kHz	40	37.0 max.	40	252kHz	1.6	1812
LQH43NN182J03	1800 ±5%	1kHz	35	45.0 max.	40	252kHz	1.5	1812
LQH43NN182K03	1800 ±10%	1kHz	35	45.0 max.	40	252kHz	1.5	1812
LQH43NN222J03	2200 ±5%	1kHz	30	50.0 max.	40	252kHz	1.3	1812
LQH43NN222K03	2200 ±10%	1kHz	30	50.0 max.	40	252kHz	1.3	1812

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

■ Q-Frequency Characteristics



■ Inductance-Current Characteristics



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