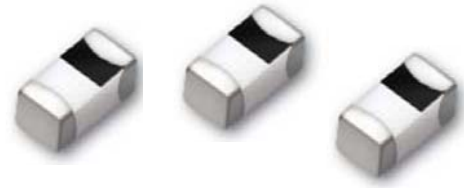




### ◆ Features

- 1.Particular ceramic material and coil structure provide high frequency application range up to 10GHz
- 2.High Q at high frequency
- 3.Small size and low profile
- 4.Available in various sizes
- 5.Excellent solderability and resistance



### ◆ Application

RF and wireless communication, information technology equipment which includes computer, telecommunications, radar detectors, automotive electronics, cellular phones, pagers, audio equipment, PDAs, keyless remote system and low-voltage power supply modules.

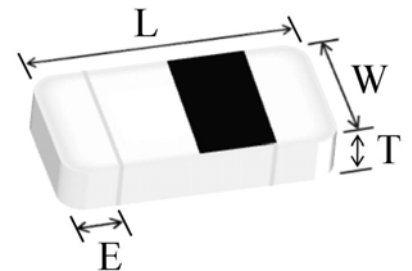
### ◆ How to Order

- | <u>MCI</u>   | <u>1608</u> | <u>HQ</u> | <u>39N</u> | <u>J</u> | <u>H</u> | <u>B</u> | <u>P</u> |
|--|-------------|-----------|------------|----------|----------|----------|----------|
| (1)  | (2)         | (3)       | (4)        | (5)      | (6)      | (7)      | (8)      |
| (1) Series Type  |             |           |            |          |          |          |          |
| (2) Chip Size(mm): Length x Width  |             |           |            |          |          |          |          |
| (3) HQ – High Q Value  |             |           |            |          |          |          |          |
| (4) Inductance( $\mu$ H): N means decimal point<br>Ex.: 39nH $\rightarrow$ 39N |             |           |            |          |          |          |          |
| (5) Tolerance: S= $\pm 0.3$ nH, J= $\pm 5\%$ , K= $\pm 10\%$                   |             |           |            |          |          |          |          |
| (6) Mark : H-1/8 Mark, M-1/4 Mark, N-No Mark                                   |             |           |            |          |          |          |          |
| (7) Soldering: Green Parts:B- Lead-Free for whole chip                         |             |           |            |          |          |          |          |
| (8) Packaging: P – Embossed paper tape, 7" reel                                |             |           |            |          |          |          |          |

### ◆ Dimensions

Unit: mm

Size(EIA)	0603 (0201)	1005 (0402)	1608 (0603)	2012 (0805)
L	0.60 $\pm$ 0.03	1.00 $\pm$ 0.10	1.60 $\pm$ 0.15	2.00 $\pm$ 0.20
W	0.30 $\pm$ 0.03	0.50 $\pm$ 0.10	0.80 $\pm$ 0.15	1.25 $\pm$ 0.20
T	0.30 $\pm$ 0.03	0.50 $\pm$ 0.10	0.80 $\pm$ 0.15	0.90 $\pm$ 0.20
E	0.10~0.20	0.10~0.30	0.20~0.60	0.50 $\pm$ 0.30



### ◆ Specifications

Part Number	Inductance (nH)	Q Min.	Test Freq. (MHz)	Q (Typical) Frequency (MHz)						SRF (MHz)	DCR (Ω)	Rated Current (mA) Max.
				100	300	500	800	1000	1800	Min.	Max.	
<b>0603 (EIA 0201)</b>												
MCI0603HQ1N0SHBP	1.0	4	100	6	10	15	17	22	34	10000	0.14	250
MCI0603HQ1N2SHBP	1.2	4	100	7	12	16	20	26	33	10000	0.14	250
MCI0603HQ1N5SHBP	1.5	4	100	6	11	15	19	24	33	10000	0.18	230
MCI0603HQ1N8SHBP	1.8	4	100	7	12	16	21	26	34	10000	0.19	200
MCI0603HQ2N2SHBP	2.2	4	100	6	11	14	18	22	30	8800	0.22	200
MCI0603HQ2N7SHBP	2.7	5	100	7	11	15	19	23	31	7700	0.25	200
MCI0603HQ3N3SHBP	3.3	5	100	6	12	16	20	24	31	6700	0.30	180
MCI0603HQ3N9SHBP	3.9	5	100	6	11	15	19	23	30	6000	0.30	170
MCI0603HQ4N7SHBP	4.7	5	100	7	12	16	20	23	30	5300	0.40	150
MCI0603HQ5N1SHBP	5.1	5	100	7	12	16	20	23	30	4700	0.40	150
MCI0603HQ5N6SHBP	5.6	5	100	6	11	14	18	21	26	4200	0.40	150
MCI0603HQ6N8SHBP	6.8	5	100	6	11	14	18	21	26	3500	0.50	150
MCI0603HQ8N2JHBP	8.2	5	100	7	11	14	17	20	24	3200	0.55	150
MCI0603HQ10NJHBP	10	5	100	7	11	14	18	20	25	2800	0.65	150
MCI0603HQ12NJHBP	12	5	100	7	11	14	18	20	23	2400	0.70	100
MCI0603HQ15NJHBP	15	5	100	7	11	14	17	19	21	2200	0.80	100
MCI0603HQ18NJHBP	18	5	100	8	12	15	19	20	21	2100	0.90	100
MCI0603HQ22NJHBP	22	5	100	6	10	12	14	15	14	1800	1.20	100
MCI0603HQ27NJHBP	27	4	100	6	10	13	15	16	13	1800	1.80	50
MCI0603HQ33NJHBP	33	4	100	7	10	13	15	15	8	1700	2.10	50
MCI0603HQ39NJHBP	39	4	100	6	10	13	14	14	3	1500	2.40	50
<b>1005 (EIA 0402)</b>												
MCI1005HQ1N0SHBP	1.0	8	100	12	21	33	43	55	80	10000	0.12	300
MCI1005HQ1N1SHBP	1.1	8	100	13	21	35	43	61	82	10000	0.12	300
MCI1005HQ1N2SHBP	1.2	8	100	12	21	34	43	56	72	10000	0.12	300
MCI1005HQ1N3SHBP	1.3	8	100	12	20	30	39	50	75	10000	0.13	300
MCI1005HQ1N5SHBP	1.5	8	100	13	23	35	45	56	80	6000	0.13	300
MCI1005HQ1N6SHBP	1.6	8	100	13	23	35	43	56	81	6000	0.14	300
MCI1005HQ1N8SHBP	1.8	8	100	12	22	32	41	49	69	6000	0.14	300
MCI1005HQ2N0SHBP	2.0	8	100	11	20	29	37	45	59	6000	0.16	300
MCI1005HQ2N2SHBP	2.2	8	100	10	18	26	34	39	51	6000	0.16	300
MCI1005HQ2N4SHBP	2.4	8	100	11	19	27	36	43	56	6000	0.17	300
MCI1005HQ2N7SHBP	2.7	8	100	11	20	28	36	42	55	6000	0.17	300
MCI1005HQ3N0SHBP	3.0	8	100	11	22	32	39	45	49	6000	0.19	300
MCI1005HQ3N3SHBP	3.3	8	100	11	22	32	39	45	47	6000	0.19	300
MCI1005HQ3N6SHBP	3.6	8	100	11	21	31	38	43	46	5000	0.22	300
MCI1005HQ3N9SHBP	3.9	8	100	11	21	30	37	43	45	4000	0.22	300
MCI1005HQ4N3SHBP	4.3	8	100	11	20	28	36	41	44	4000	0.24	300
MCI1005HQ4N7SHBP	4.7	8	100	11	21	29	37	42	43	4000	0.24	300
MCI1005HQ5N1SHBP	5.1	8	100	11	21	29	36	41	43	4000	0.27	300
MCI1005HQ5N6SHBP	5.6	8	100	11	20	28	35	40	42	4000	0.27	300
MCI1005HQ6N2JHBP	6.2	8	100	11	21	29	36	41	42	3900	0.32	300
MCI1005HQ6N8JHBP	6.8	8	100	11	20	27	34	38	40	3900	0.32	300
MCI1005HQ8N2JHBP	8.2	8	100	12	21	28	35	39	40	3500	0.37	300
MCI1005HQ10NJHBP	10	8	100	11	20	27	33	36	37	3200	0.42	300

●All Specifications are subject to change without notice.

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Part Number	Inductance (nH)	Q Min.	Test Freq. (MHz)	Q (Typical) Frequency (MHz)						SRF (MHz)	DCR (Ω)	Rated Current (mA) Max.
				100	300	500	800	1000	1800	Min.	Max.	
MCI1005HQ12NJHBP	12	8	100	11	20	27	33	37	39	2600	0.50	300
MCI1005HQ15NJHBP	15	8	100	11	20	27	33	36	38	2300	0.55	300
MCI1005HQ18NJHBP	18	8	100	11	19	24	30	32	31	2000	0.65	300
MCI1005HQ22NJHBP	22	8	100	12	20	26	31	33	29	1600	0.80	300
MCI1005HQ27NJHBP	27	8	100	12	19	25	29	31	23	1400	0.90	300
MCI1005HQ33NJHBP	33	8	100	12	20	25	29	29	14	1200	1.00	200
MCI1005HQ39NJHBP	39	8	100	11	18	23	24	23	-	1100	1.20	200
MCI1005HQ47NJHBP	47	8	100	12	19	23	24	22	-	900	1.30	200
MCI1005HQ56NJHBP	56	8	100	12	19	23	22	20	-	750	1.40	200
MCI1005HQ68NJHBP	68	8	100	12	18	21	19	14	-	750	1.40	180
MCI1005HQ82NJHBP	82	8	100	11	17	19	15	8	-	600	1.60	150
MCI1005HQR10JHBP	100	8	100	12	18	18	11	-	-	600	1.60	100
MCI1005HQR12JHBP	120	8	100	11	15	14	-	-	-	600	1.60	100
<b>1608 (EIA 0603)</b>												
MCI1608HQ1N0SHBP	1.0	8	100	15	27	40	49	68	87	6000	0.10	1000
MCI1608HQ1N2SHBP	1.2	8	100	15	25	40	49	68	83	6000	0.10	1000
MCI1608HQ1N5SHBP	1.5	8	100	11	23	35	39	49	63	6000	0.10	1000
MCI1608HQ1N8SHBP	1.8	8	100	11	22	34	38	48	56	6000	0.10	1000
MCI1608HQ2N2SHBP	2.2	8	100	12	25	37	43	52	65	6000	0.10	1000
MCI1608HQ2N7SHBP	2.7	10	100	13	26	38	45	53	68	6000	0.13	1000
MCI1608HQ3N3SHBP	3.3	10	100	13	26	39	46	55	68	6000	0.13	1000
MCI1608HQ3N9SHBP	3.9	10	100	12	25	35	43	49	67	6000	0.15	1000
MCI1608HQ4N7SHBP	4.7	10	100	14	27	38	45	54	67	4000	0.20	1000
MCI1608HQ5N6SHBP	5.6	10	100	14	27	38	46	53	66	4000	0.23	600
MCI1608HQ6N8JHBP	6.8	10	100	15	28	39	47	55	68	4000	0.25	600
MCI1608HQ8N2JHBP	8.2	10	100	15	28	38	47	53	67	3500	0.28	600
MCI1608HQ10NJHBP	10	12	100	14	27	37	45	52	65	3200	0.30	600
MCI1608HQ12NJHBP	12	12	100	16	28	37	46	50	62	2600	0.35	600
MCI1608HQ15NJHBP	15	12	100	16	28	38	47	51	63	2300	0.40	600
MCI1608HQ18NJHBP	18	12	100	16	28	38	48	54	61	2000	0.45	600
MCI1608HQ22NJHBP	22	12	100	16	29	38	45	46	43	1600	0.50	600
MCI1608HQ27NJHBP	27	12	100	17	30	40	46	45	33	1400	0.55	600
MCI1608HQ33NJHBP	33	12	100	16	28	37	42	40	-	1200	0.60	600
MCI1608HQ39NJHBP	39	12	100	18	29	37	40	37	-	1100	0.65	500
MCI1608HQ47NJHBP	47	12	100	17	29	38	41	35	-	900	0.70	500
MCI1608HQ56NJHBP	56	12	100	17	29	36	37	30	-	900	0.75	500
MCI1608HQ68NJHBP	68	12	100	18	28	34	31	23	-	700	0.85	400
MCI1608HQ82NJHBP	82	12	100	18	28	32	27	17	-	600	0.95	300
MCI1608HQR10JHBP	100	12	100	17	27	31	23	10	-	600	1.00	300
MCI1608HQR12JHBP	120	8	50	13	27	29	17	-	-	500	1.20	300
MCI1608HQR15JHBP	150	8	50	12	23	20	-	-	-	500	1.20	300
MCI1608HQR18JHBP	180	8	50	12	21	16	-	-	-	400	1.30	300
MCI1608HQR22JHBP	220	8	50	12	20	12	-	-	-	400	1.50	300
MCI1608HQR27JHBP	270	8	50	11	17	-	-	-	-	400	1.90	300

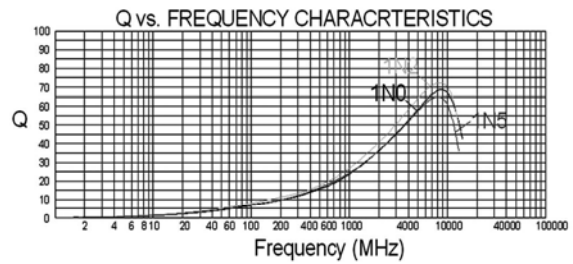
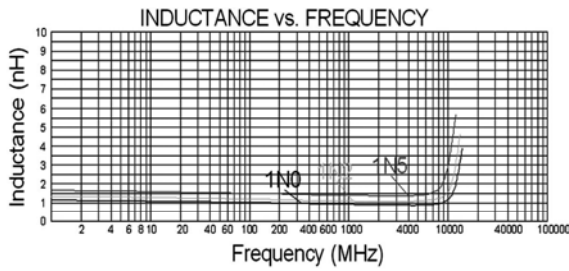
Part Number	Inductance (nH)	Q Min.	Test Freq. (MHz)	Q (Typical) Frequency (MHz)						SRF (MHz)	DCR ( $\Omega$ )	Rated Current (mA) Max.
				100	300	500	800	1000	1800	Min.	Max.	
<b>2012 (EIA 0805)</b>												
MCI2012HQ1N5SNBP	1.5	10	100	16	32	43	55	67	93	4000	0.10	300
MCI2012HQ1N8SNBP	1.8	10	100	16	40	56	55	59	90	4000	0.10	300
MCI2012HQ2N2SNBP	2.2	10	100	16	29	40	51	58	84	4000	0.10	300
MCI2012HQ2N7SNBP	2.7	12	100	16	32	43	55	60	83	4000	0.10	300
MCI2012HQ3N3SNBP	3.3	12	100	19	39	52	65	70	96	4000	0.13	300
MCI2012HQ3N9SNBP	3.9	12	100	19	39	52	65	75	91	3000	0.15	300
MCI2012HQ4N7SNBP	4.7	12	100	19	40	53	65	70	76	3000	0.20	300
MCI2012HQ5N6SNBP	5.6	15	100	19	40	53	62	70	66	3000	0.23	300
MCI2012HQ6N8JNBP	6.8	15	100	19	35	44	55	60	61	2500	0.25	300
MCI2012HQ8N2JNBP	8.2	15	100	19	35	45	53	60	41	2000	0.28	300
MCI2012HQ10NJNBP	10	15	100	20	41	53	60	60	36	2000	0.30	300
MCI2012HQ12NJNBP	12	15	100	20	28	36	40	45	15	1500	0.35	300
MCI2012HQ15NJNBP	15	15	100	20	37	46	48	45	9	1500	0.40	300
MCI2012HQ18NJNBP	18	15	100	20	42	52	54	45	2	1300	0.45	300
MCI2012HQ22NJNBP	22	18	100	20	33	40	38	31	-	1200	0.50	300
MCI2012HQ27NJNBP	27	18	100	20	37	44	38	29	-	1000	0.55	300
MCI2012HQ33NJNBP	33	18	100	20	32	36	28	15	-	1000	0.60	300
MCI2012HQ39NJNBP	39	18	100	20	32	36	21	12	-	800	0.65	300
MCI2012HQ47NJNBP	47	18	100	21	31	33	17	12	-	800	0.70	300
MCI2012HQ56NJNBP	56	18	100	21	31	31	12	9	-	700	0.75	300
MCI2012HQ68NJNBP	68	18	100	21	31	30	9	-	-	600	0.80	300
MCI2012HQ82NJNBP	82	18	100	22	31	26	4	-	-	500	0.90	300
MCI2012HQR10JNBP	100	18	100	22	30	22	16	-	-	500	0.90	300
MCI2012HQR12JNBP	120	13	50	22	27	17	20	-	-	400	0.95	300
MCI2012HQR15JNBP	150	13	50	22	27	9	-	-	-	300	1.00	300
MCI2012HQR18JNBP	180	13	50	21	21	8	-	-	-	300	1.10	300
MCI2012HQR22JNBP	220	12	50	20	20	4	-	-	-	300	1.20	300
MCI2012HQR27JNBP	270	12	50	24	17	17	-	-	-	200	1.30	300
MCI2012HQR33JNBP	330	12	50	20	10	-	-	-	-	200	1.50	300

### ◆ General Technical Data

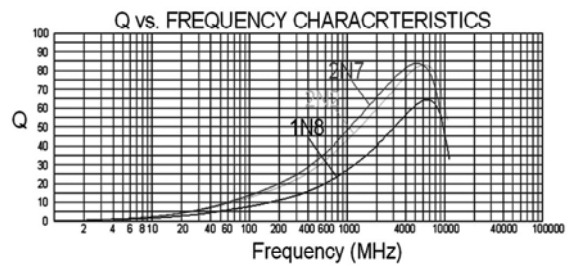
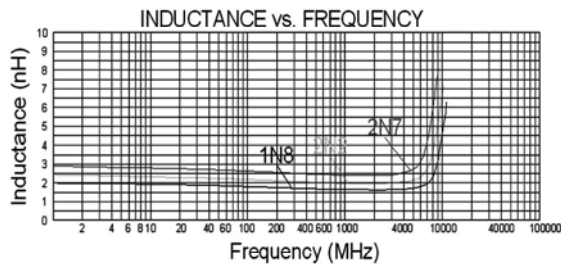
Operating Temperature Range	-55°C ~ +125°C, (1608:-40°C ~ +85°C)
Storage Temperature (on board)	-40°C ~ +85°C
Storage Condition	Less than 40°C and 70% RH
Soldering Method	Reflow or Wave Soldering

◆ Characteristics

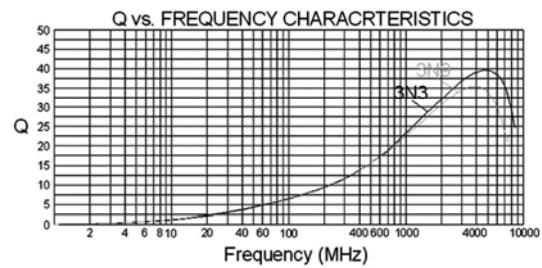
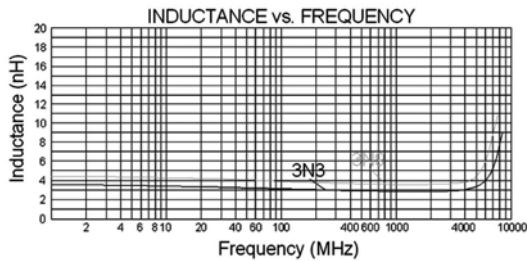
*MCI0603HQ 1N0, 1N2, 1N5*



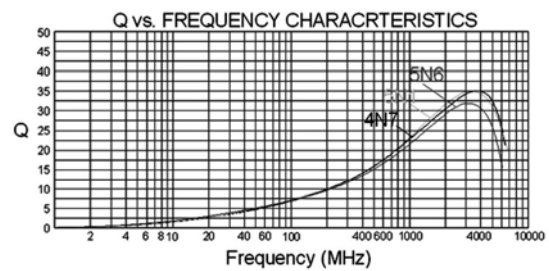
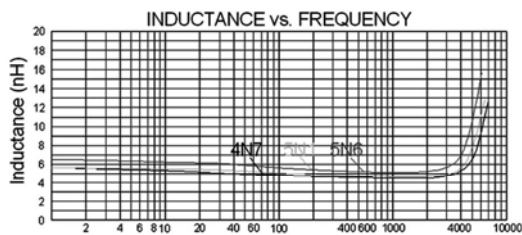
*MCI0603HQ 1N8, 2N2, 2N7*



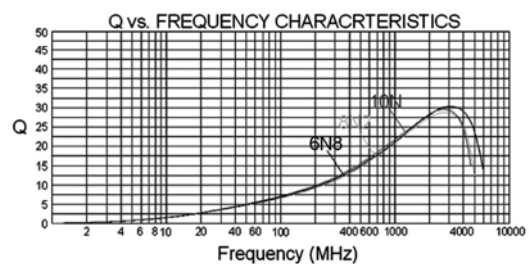
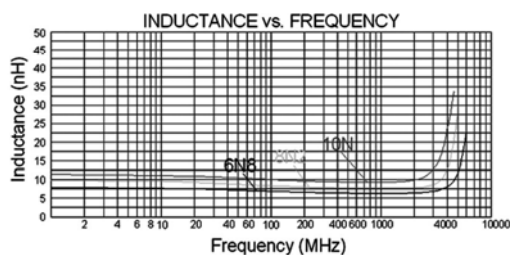
*MCI0603HQ 3N3, 3N9*



*MCI0603HQ 4N7, 5N1, 5N6*

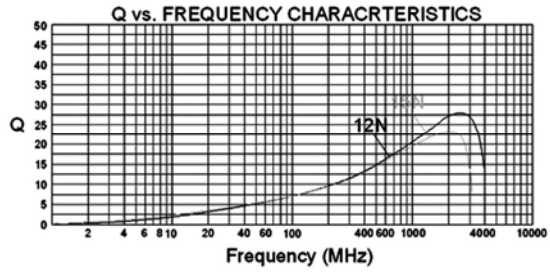
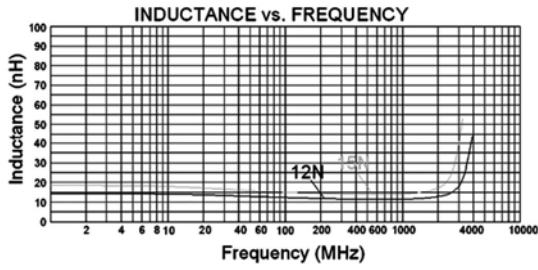


*MCI0603HQ 6N8, 8N2, 10N*

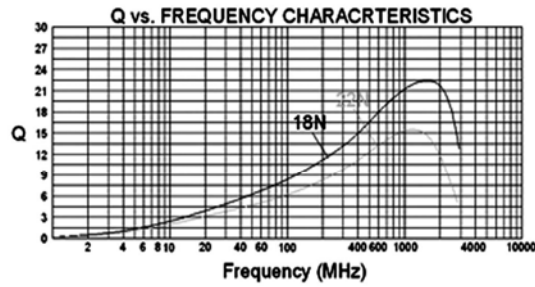
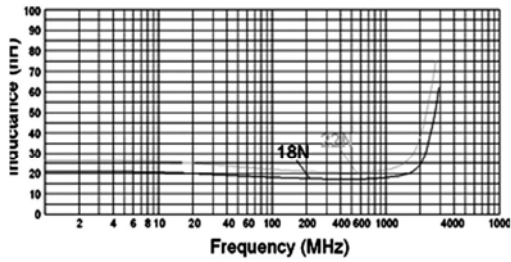


◆ Characteristics

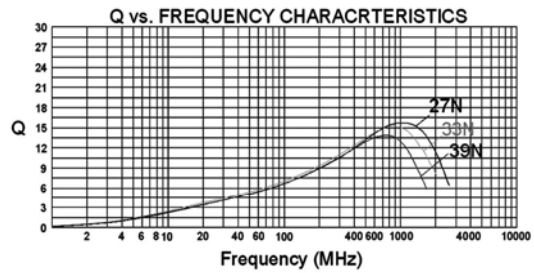
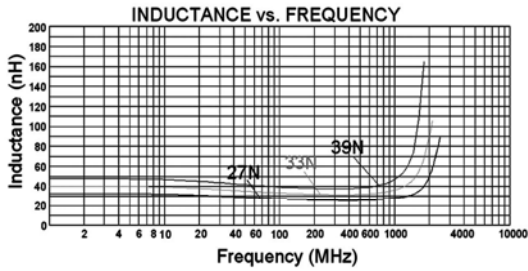
MCI0603HQ 12N, 15N



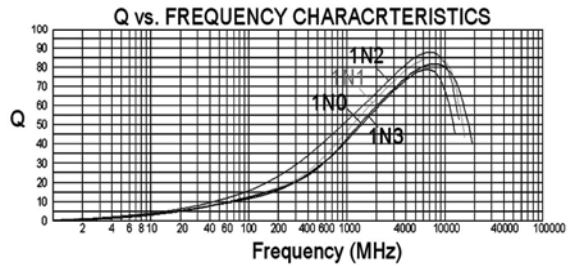
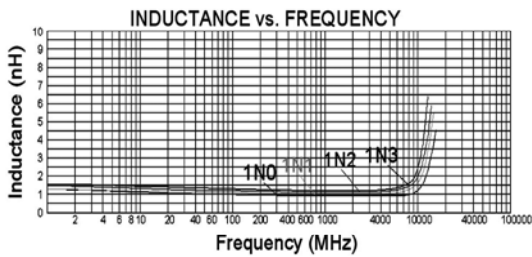
MCI0603HQ 18N, 22N



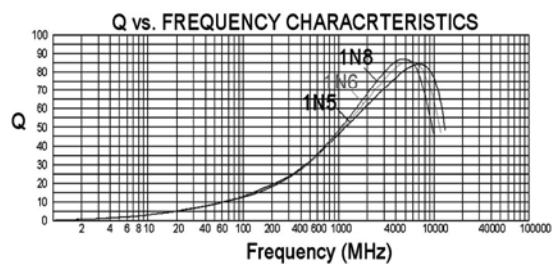
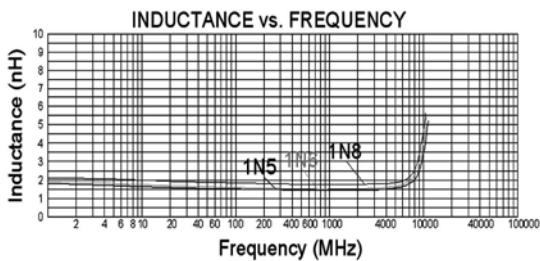
MCI0603HQ 27N, 33N, 39N



MCI1005HQ 1N0, 1N1, 1N2, 1N3

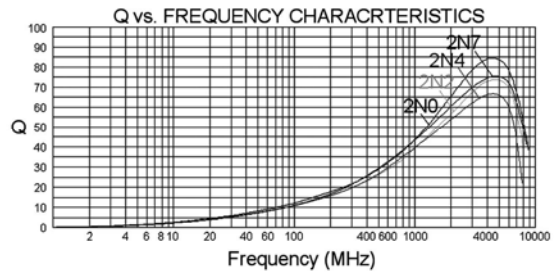
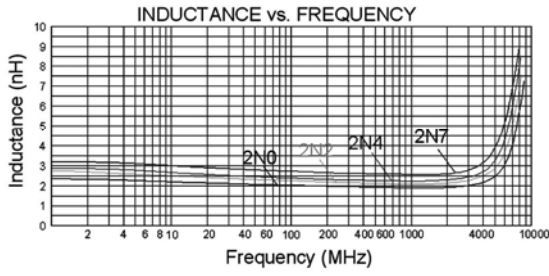


MCI1005HQ 1N5, 1N6, 1N8

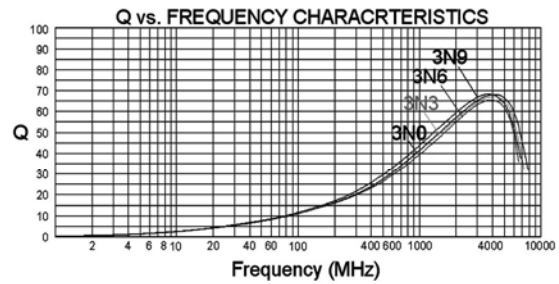
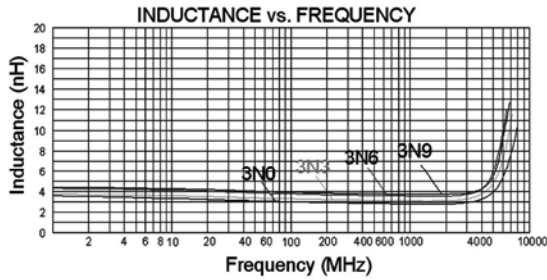


◆ Characteristics

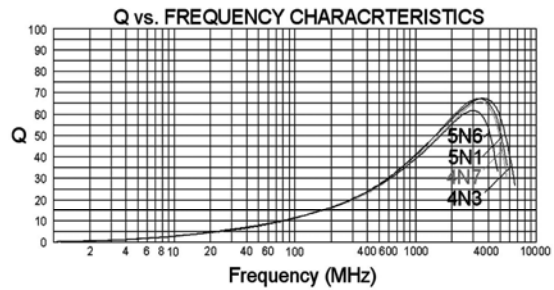
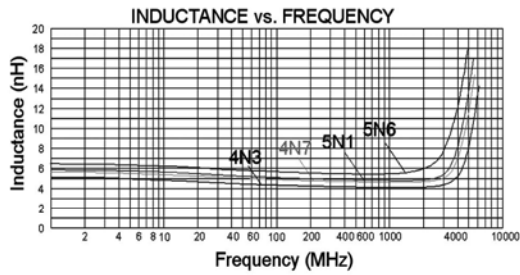
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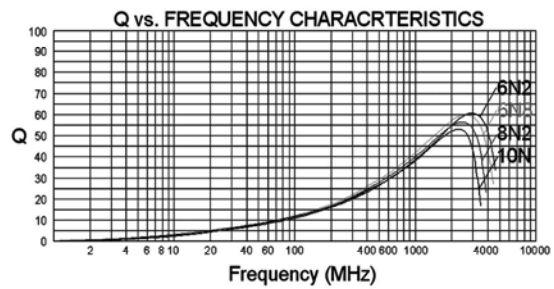
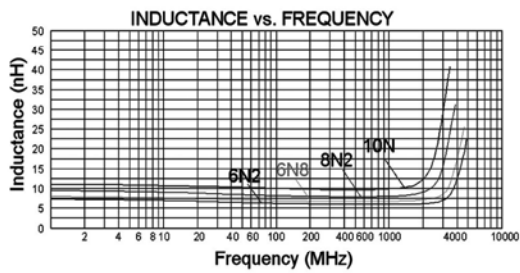
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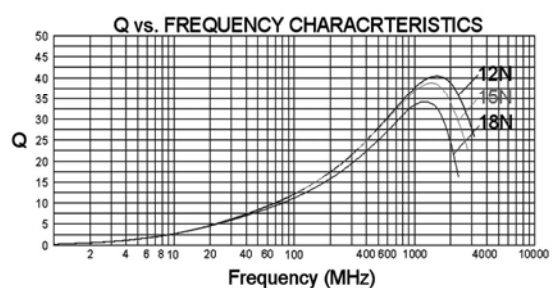
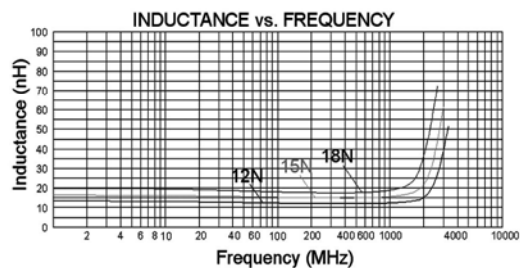
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*MCI1005HQ 6N2, 6N8, 8N2, 10N*

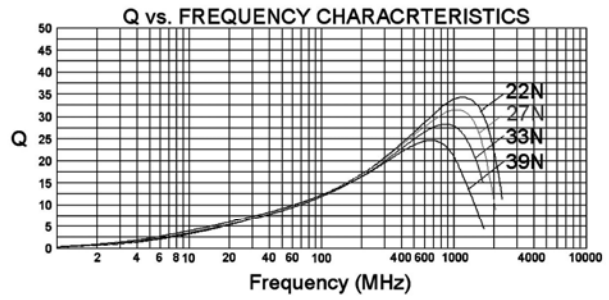
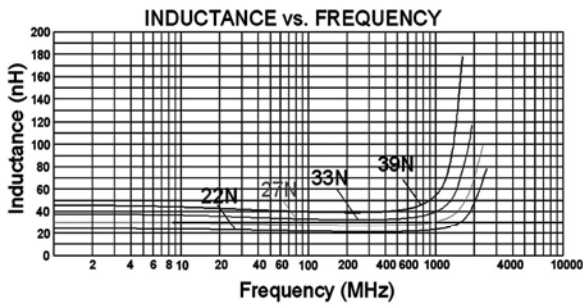


*MCI1005HQ 12N, 15N, 18N*

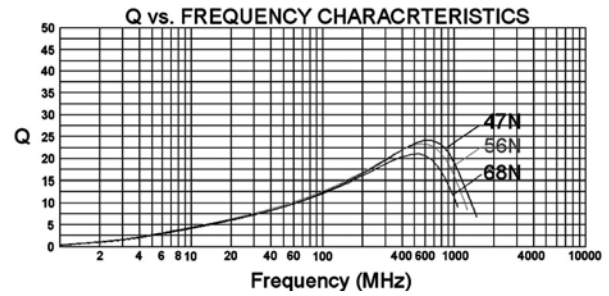
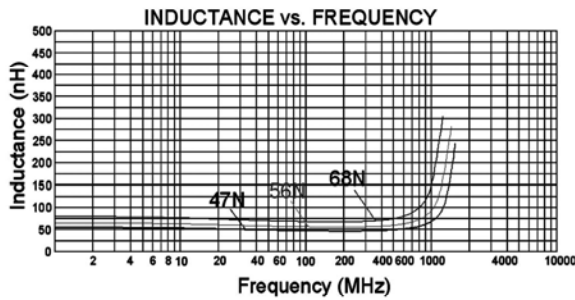


◆ Characteristics

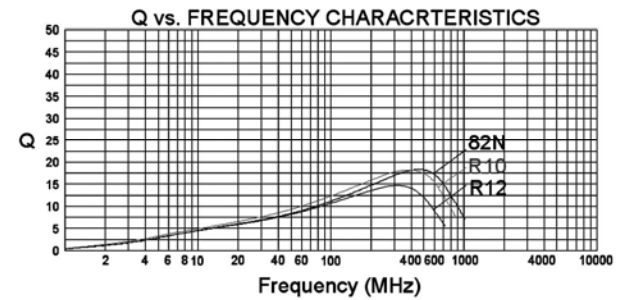
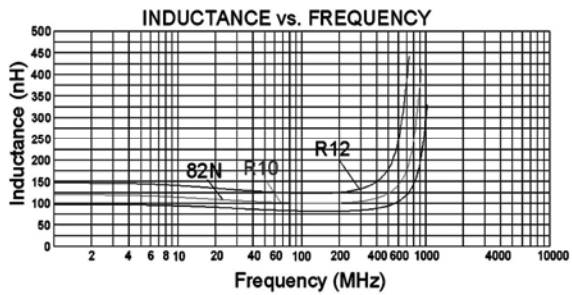
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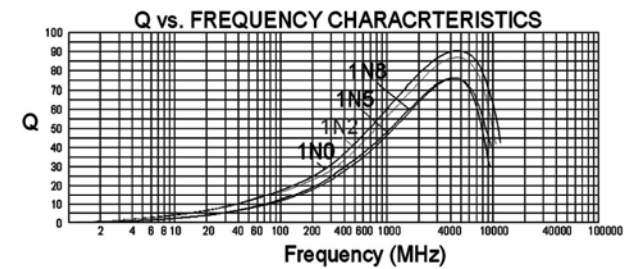
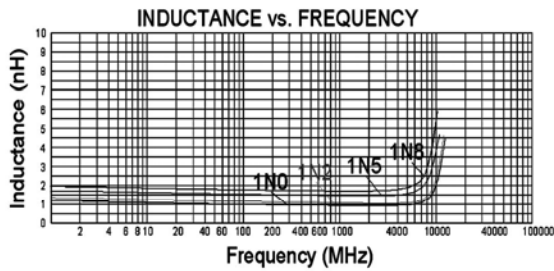
*MCI1005HQ 47N, 56N, 68N*



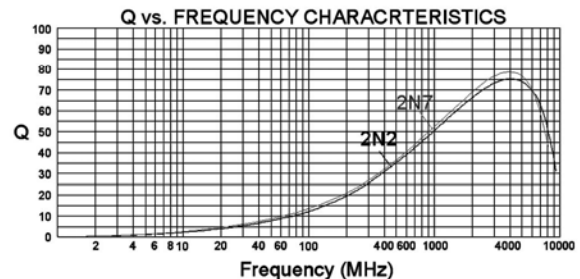
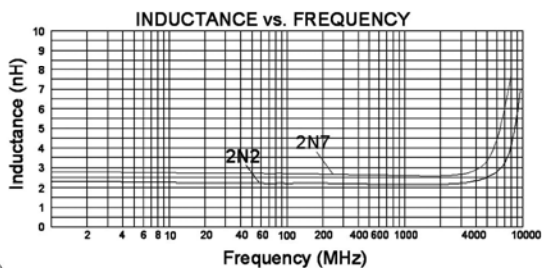
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*MCI1608HQ 1N0, 1N2, 1N5, 1N8*

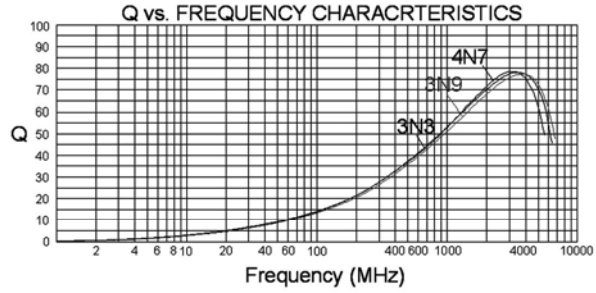
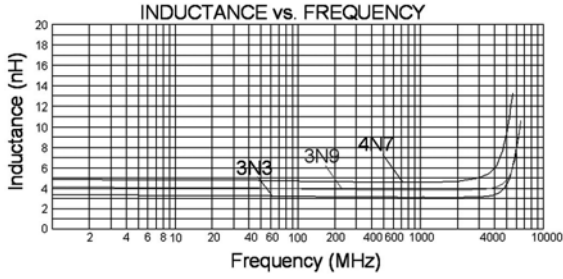


*MCI1608HQ 2N2, 2N7*

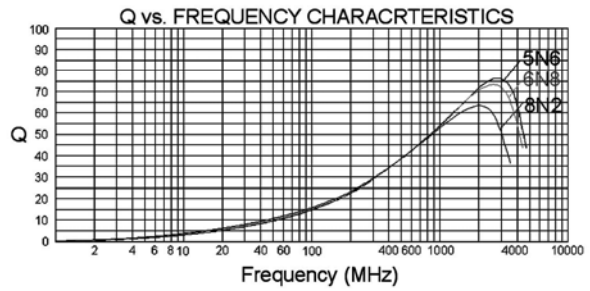
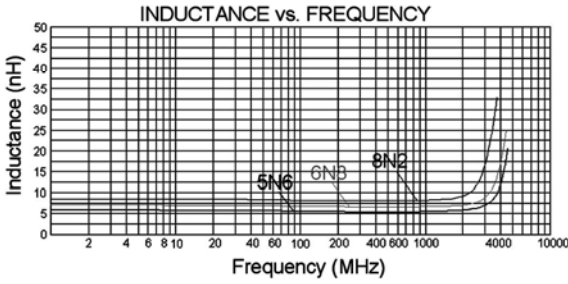


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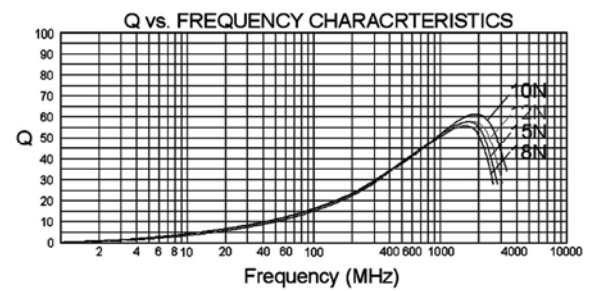
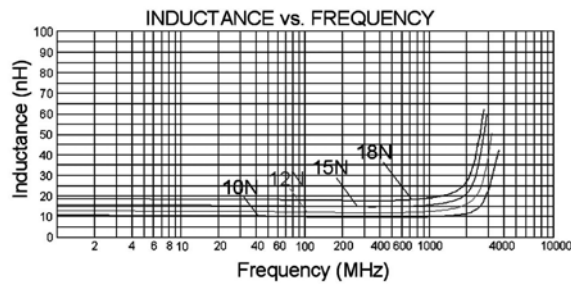
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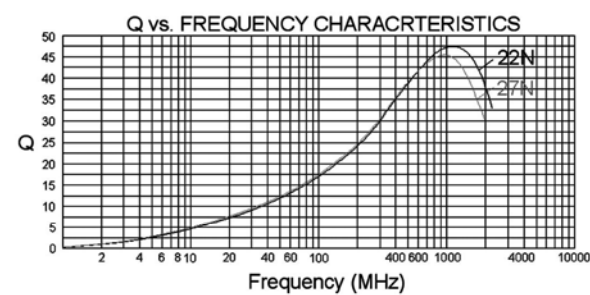
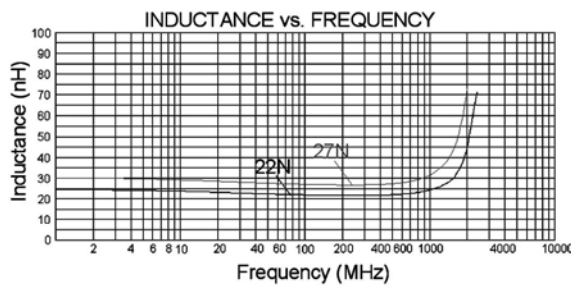
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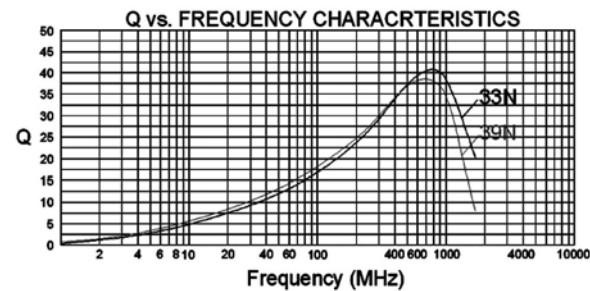
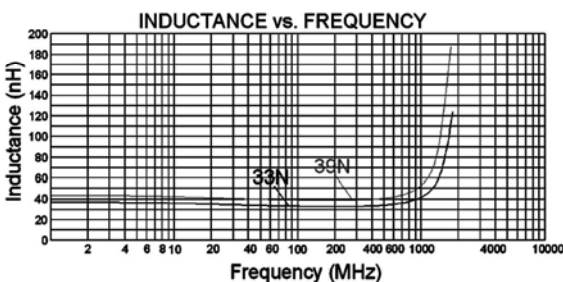
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**MCI1608HQ 22N, 27N**

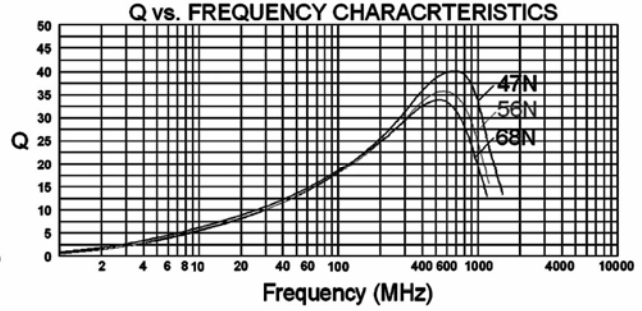
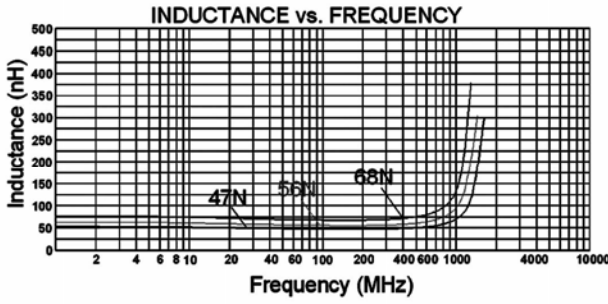


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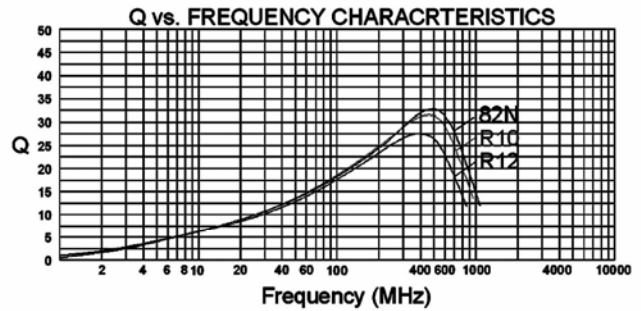
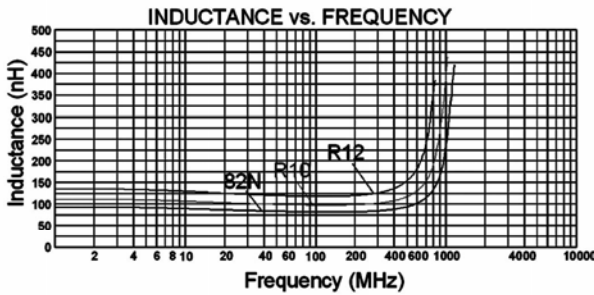


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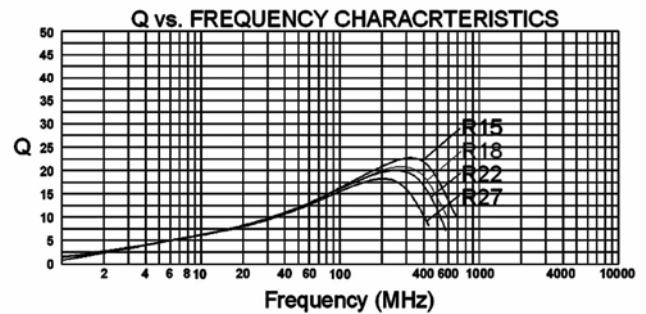
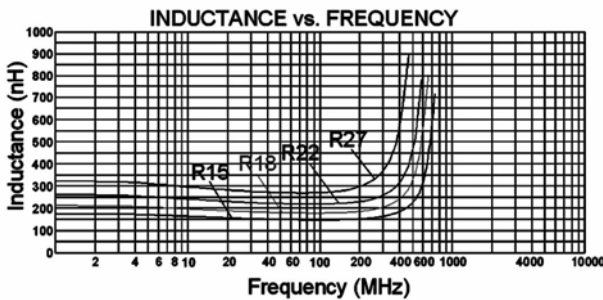
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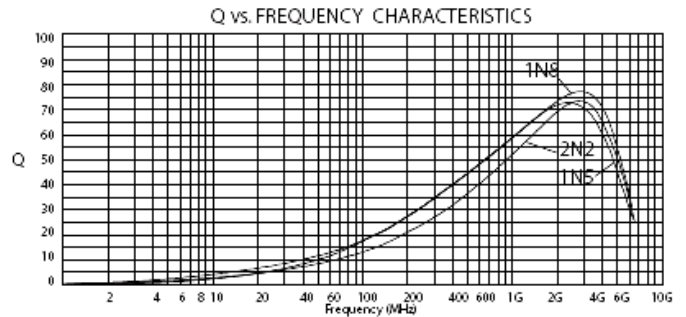
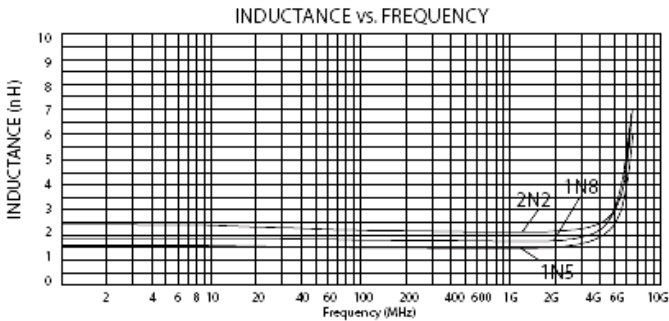
MCI1608HQ 82N, R10, R12



MCI1608HQ R18, R22, R27

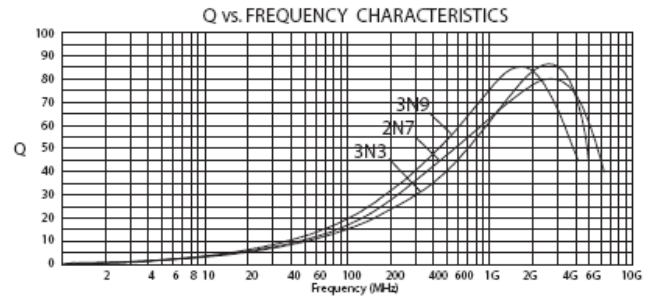
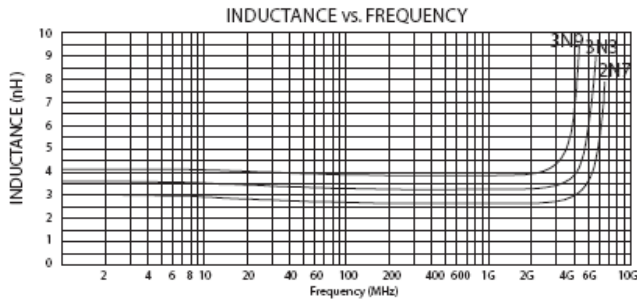


MCI2012HQ 1N5, 1N8 & 2N2

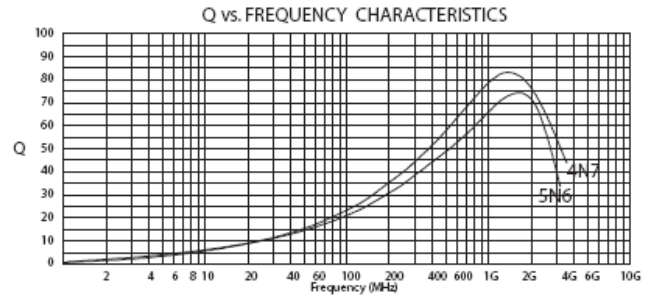
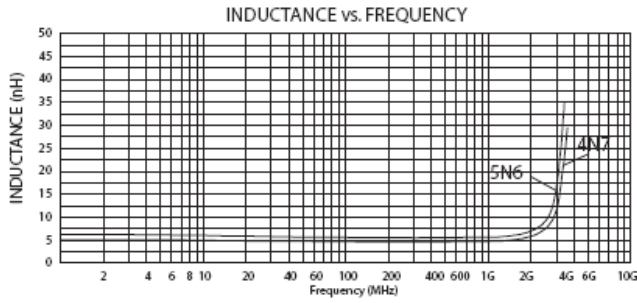


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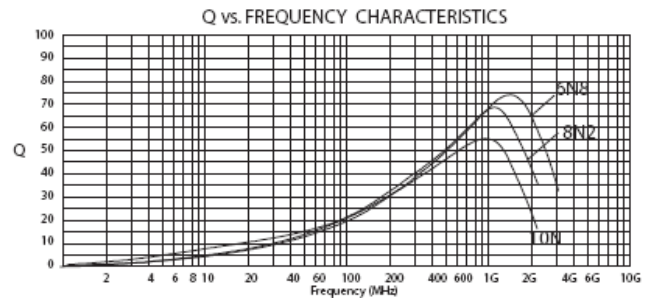
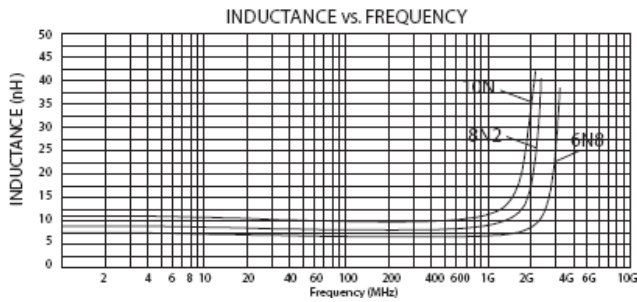
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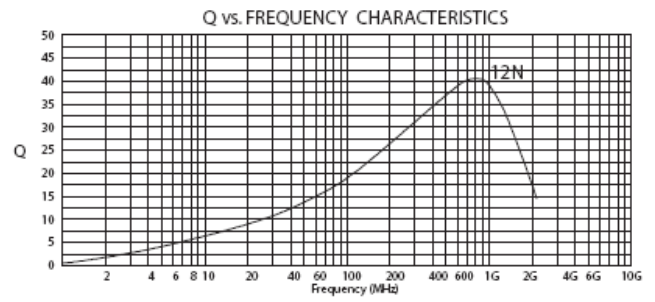
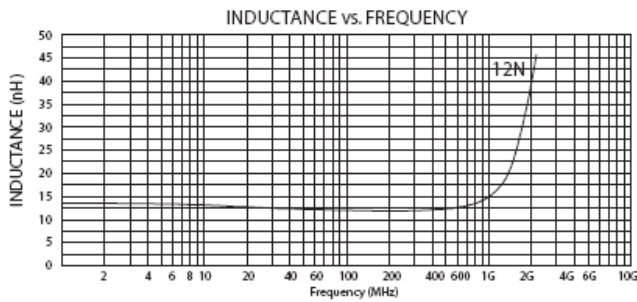
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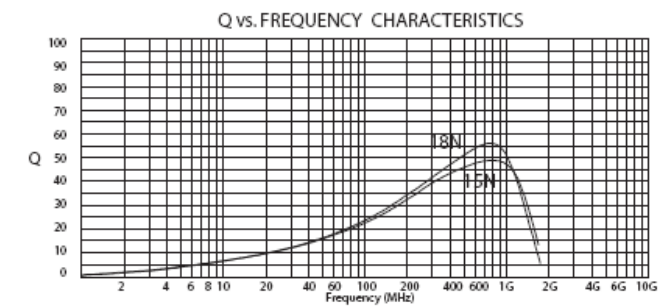
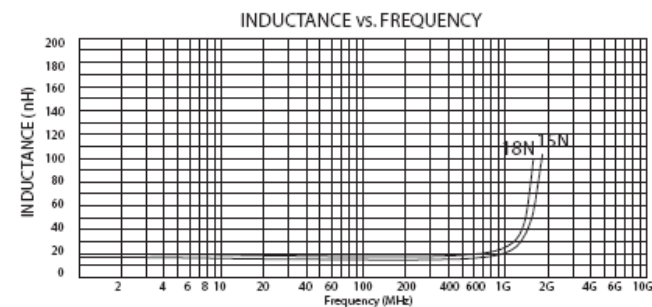
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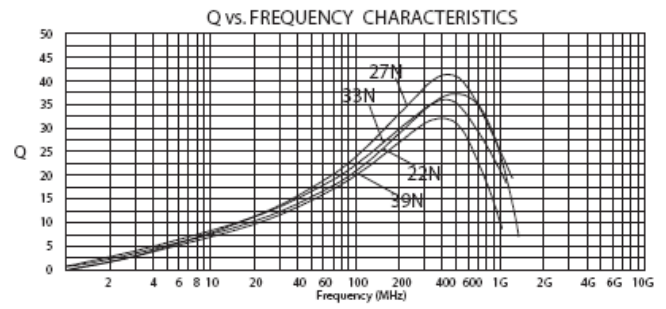
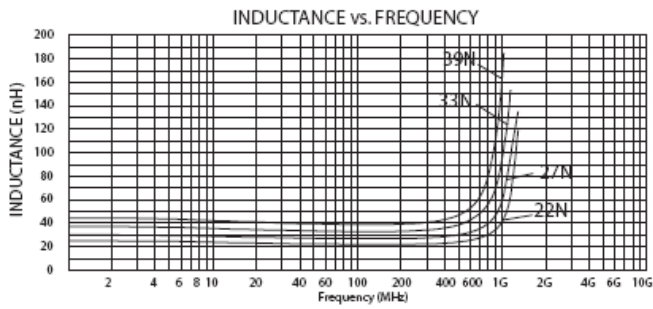


MCI2012HQ 15N & 18N

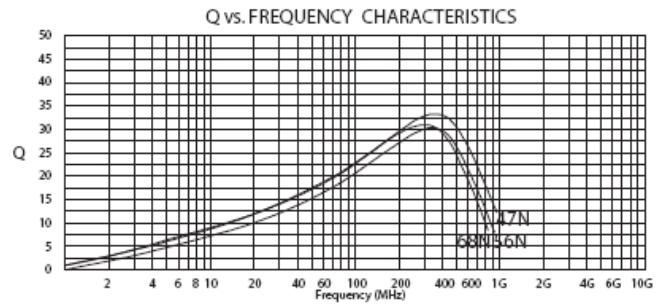
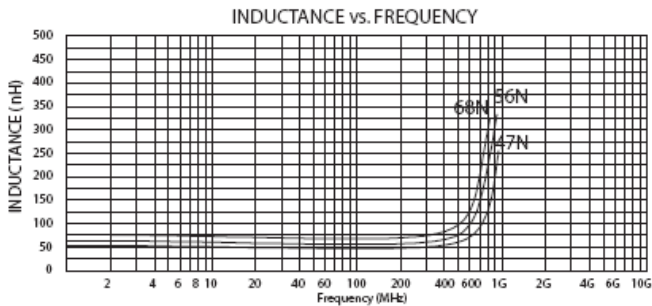


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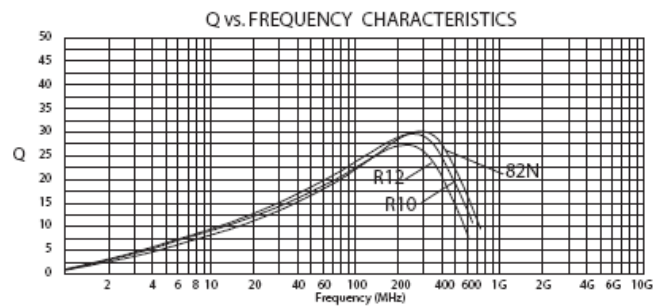
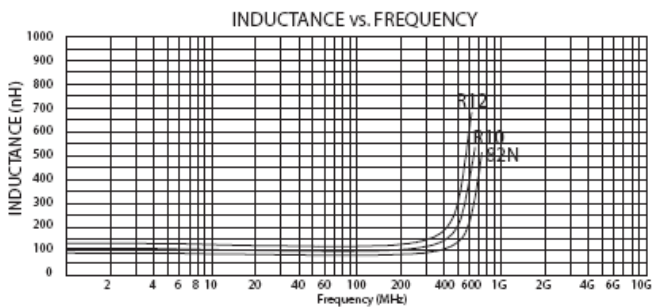
MCI2012HQ 22N, 27N, 33N & 39N



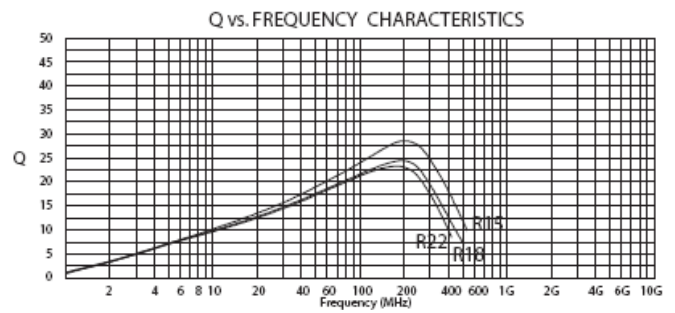
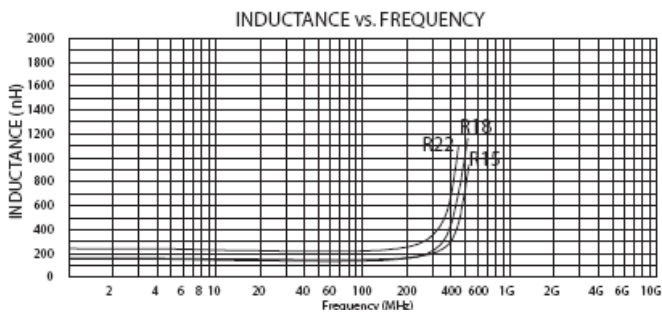
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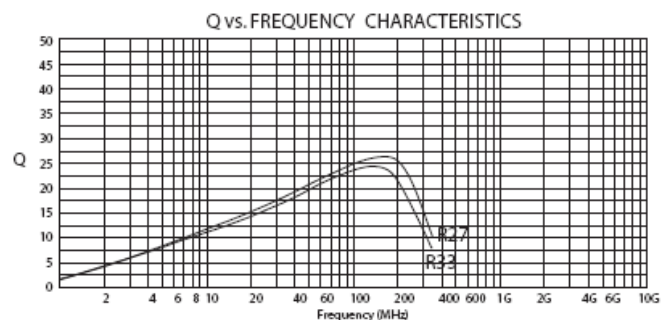
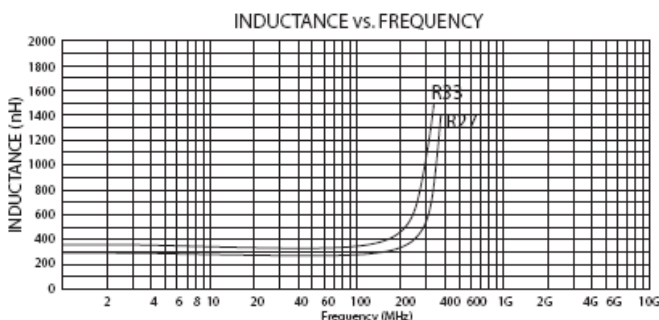
MCI2012HQ 82N, R10 & R12



MCI2012HQ R15, R18 & R22



MCI2012HQ R27 & R33



## ◆ Package

Size (EIA)	0603(0201)	1005(0402)	1608(0603)	2012(0805)
Standard packing quantity (pcs/reel)	15,000	10,000	4,000	4,000