Chip Ferrite Inductor
MFI Series

Features

- The monolithic construction performs high reliability and ensures a closed magnetic flux in a component avoids magnetic leakage and interference.
- Allow for higher mounting density.

Applications

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

MFI	3216	4R7	K	B	—
1	2	3	4	5	6

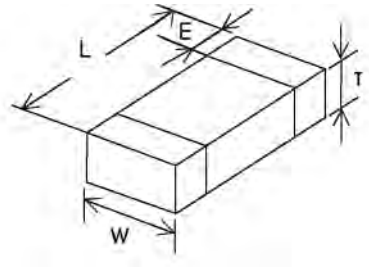
1. Series type : Chip Ferrite Inductor
2. Chip size(mm) : Length x Width
3. Inductance (μH): R means decimal point
   Ex.: 4.7μH → 4R7
4. Tolerance : J±5%, K=±10%, M=±20%
5. Soldering : Green Parts: A—Soldering Lead-Free, B—Lead-Free for whole chip
6. Packaging : P—Embossed paper tape, 7" reel
   E—Embossed plastic tape, 7" reel
   N—Embossed anti-static electricity tape, 7" reel
   T—Embossed anti-static electricity tape, 13" reel

Dimensions

Unit:mm

Size (EIA)	1608 (0603)	2012_09 (0805)	2012_12 (0805)	3216 (1206)
L	1.60±0.15	2.00±0.20	2.00±0.20	3.20±0.20
W	0.80±0.15	1.25±0.20	1.25±0.20	1.60±0.20
T	0.80±0.15	0.90±0.20	1.25±0.20	1.10±0.20
E	0.30±0.20	0.50±0.30	0.50±0.30	0.50±0.30

The thickness of 2012 specification under 4.7μH is 0.90mm +/-0.20mm



Specifications

Series	Inductance (μH)	Q		Test Freq (MHz)	SRF (MHz)		DCR (Ω)		Rated Current Max.(mA)
		Min.	Typ.		Min.	Typ.	Max.	Typ.	
1608 (EIA 0603)									
MFI1608R047M_	0.047	10	20	50	260	350	0.25	0.15	50
MFI1608R056M_	0.056	10	20	50	255	325	0.25	0.15	50
MFI1608R068M_	0.068	10	20	50	250	325	0.25	0.15	50
MFI1608R082M_	0.082	10	20	50	245	310	0.25	0.15	50
MFI1608R10K_	0.10	15	25	25	240	295	0.50	0.30	50
MFI1608R12K_	0.12	15	25	25	235	280	0.50	0.30	50
MFI1608R15K_	0.15	15	25	25	205	260	0.60	0.30	50
MFI1608R18K_	0.18	15	25	25	190	245	0.60	0.30	50
MFI1608R22K_	0.22	15	25	25	170	230	0.80	0.40	50
MFI1608R27K_	0.27	15	25	25	155	210	0.80	0.40	50
MFI1608R33K_	0.33	15	25	25	140	200	0.80	0.40	35
MFI1608R39K_	0.39	15	25	25	125	185	1.00	0.50	35
MFI1608R47K_	0.47	15	25	25	120	170	1.00	0.50	35
MFI1608R56K_	0.56	15	25	25	110	155	1.55	0.75	35
MFI1608R68K_	0.68	15	25	25	100	140	1.70	0.80	35
MFI1608R82K_	0.82	15	25	25	95	125	2.10	0.85	35
MFI16081R0K_	1.0	35	50	10	85	105	0.60	0.30	25
MFI16081R2K_	1.2	35	50	10	70	100	0.80	0.40	25
MFI16081R5K_	1.5	35	50	10	65	90	0.80	0.40	25
MFI16081R8K_	1.8	35	50	10	60	80	0.80	0.40	25
MFI16082R2K_	2.2	35	50	10	55	75	1.00	0.50	15
MFI16082R7K_	2.7	35	50	10	50	70	1.20	0.60	15
MFI16083R3K_	3.3	35	50	10	45	60	1.40	0.70	15
MFI16083R9K_	3.9	40	50	10	42	60	1.60	0.70	15
MFI16084R7K_	4.7	40	50	10	40	50	1.80	0.80	15
MFI16086R8K_	6.8	40	50	4	20	35	1.90	0.80	5
MFI160810RK_	10	30	50	2	17	30	1.85	1.10	3
2012 (EIA 0805)									
MFI2012R047M_	0.047	20	30	50	320	400	0.20	0.11	300
MFI2012R056M_	0.056	20	30	50	300	350	0.20	0.11	300
MFI2012R068M_	0.068	20	30	50	280	320	0.20	0.11	300
MFI2012R082M_	0.082	20	30	50	275	300	0.20	0.11	300
MFI2012R10K_	0.10	20	30	25	255	280	0.30	0.16	250
MFI2012R12K_	0.12	20	30	25	250	250	0.30	0.16	250
MFI2012R15K_	0.15	20	30	25	230	230	0.40	0.21	250
MFI2012R18K_	0.18	20	30	25	210	220	0.40	0.21	250
MFI2012R22K_	0.22	20	30	25	195	200	0.50	0.26	250
MFI2012R27K_	0.27	20	30	25	170	200	0.50	0.26	250
MFI2012R33K_	0.33	20	30	25	165	180	0.50	0.31	250
MFI2012R39K_	0.39	25	35	25	155	170	0.60	0.36	200
MFI2012R47K_	0.47	25	35	25	140	160	0.60	0.36	200
MFI2012R56K_	0.56	25	35	25	130	150	0.70	0.41	150
MFI2012R68K_	0.68	25	35	25	120	135	0.80	0.46	150
MFI2012R82K_	0.82	25	35	25	115	125	1.00	0.56	150
MFI20121R0K_	1.0	45	55	10	85	105	0.40	0.21	50
MFI20121R2K_	1.2	45	55	10	75	95	0.50	0.26	50
MFI20121R5K_	1.5	45	55	10	65	85	0.50	0.26	50
MFI20121R8K_	1.8	45	55	10	60	78	0.60	0.31	50
MFI20122R2K_	2.2	45	60	10	55	70	0.60	0.36	30
MFI20122R7K_	2.7	45	60	10	50	64	0.70	0.41	30
MFI20123R3K_	3.3	45	60	10	45	58	0.80	0.46	30
MFI20123R9K_	3.9	45	60	10	44	53	0.90	0.51	30
MFI20124R7K_	4.7	45	60	10	41	48	1.00	0.56	30

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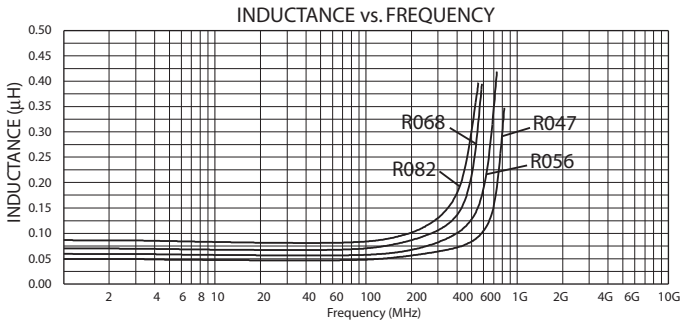
		Min.	Typ.		Min.	Typ.	Max.	Typ.	
2012 (EIA 0805)									
MFI20125R6K_	5.6	50	60	4	37	45	0.90	0.56	15
MFI20126R8K_	6.8	50	60	4	34	43	1.00	0.56	15
MFI20128R2K_	8.2	50	60	4	30	40	1.10	0.56	15
MFI201210RK_	10	50	60	2	28	33	1.00	0.50	15
MFI201212RK_	12	50	60	2	26	30	1.10	0.55	15
MFI201215RK_	15	35	60	1	22	27	0.80	0.46	5
MFI201218RK_	18	35	60	1	21	25	0.90	0.51	5
MFI201222RK_	22	35	60	1	19	22	1.10	0.61	5
3216 (EIA 1206)									
MFI3216R047M_	0.047	20	30	50	320	400	0.15	0.08	300
MFI3216R056M_	0.056	20	30	50	310	360	0.25	0.13	300
MFI3216R068M_	0.068	20	30	50	280	330	0.25	0.13	300
MFI3216R082M_	0.082	20	30	50	275	300	0.25	0.13	300
MFI3216R10K_	0.10	20	30	25	270	280	0.25	0.13	250
MFI3216R12K_	0.12	20	30	25	250	260	0.30	0.18	250
MFI3216R15K_	0.15	20	30	25	200	240	0.30	0.18	250
MFI3216R18K_	0.18	20	30	25	185	220	0.40	0.23	250
MFI3216R22K_	0.22	20	30	25	170	200	0.40	0.23	250
MFI3216R27K_	0.27	20	30	25	150	180	0.50	0.28	250
MFI3216R33K_	0.33	20	30	25	145	170	0.50	0.28	250
MFI3216R39K_	0.39	25	35	25	135	160	0.50	0.28	200
MFI3216R47K_	0.47	25	35	25	125	145	0.60	0.34	200
MFI3216R56K_	0.56	25	35	25	115	135	0.70	0.39	150
MFI3216R68K_	0.68	25	35	25	105	125	0.80	0.44	150
MFI3216R82K_	0.82	25	35	25	100	115	0.90	0.50	150
MFI32161R0K_	1.0	45	60	10	87	90	0.40	0.23	100
MFI32161R2K_	1.2	45	60	10	75	80	0.50	0.28	100
MFI32161R5K_	1.5	45	60	10	69	70	0.50	0.28	50
MFI32161R8K_	1.8	45	60	10	64	66	0.50	0.28	50
MFI32162R2K_	2.2	45	60	10	58	58	0.60	0.34	50
MFI32162R7K_	2.7	45	60	10	52	53	0.60	0.34	50
MFI32163R3K_	3.3	45	65	10	48	49	0.70	0.39	50
MFI32163R9K_	3.9	45	65	10	44	45	0.80	0.44	50
MFI32164R7K_	4.7	45	65	10	41	41	0.90	0.50	50
MFI32165R6K_	5.6	50	65	4	32	38	0.80	0.39	25
MFI32166R8K_	6.8	50	65	4	29	34	0.90	0.44	25
MFI32168R2K_	8.2	50	65	4	26	31	1.00	0.50	25
MFI321610RK_	10	50	65	2	26	30	0.60	0.35	25
MFI321612RK_	12	50	65	2	26	28	0.60	0.35	15
MFI321615RK_	15	50	65	1	22	27	0.70	0.40	5
MFI321618RK_	18	50	65	1	21	26	0.70	0.40	5
MFI321622RK_	22	50	65	1	19	21	0.90	0.50	5

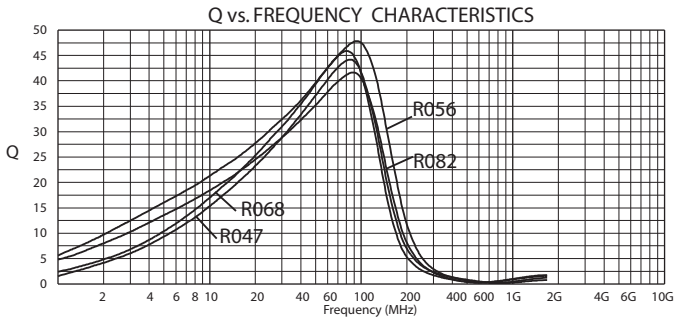
▶*General Technical Data*

Operating temperature range	-55˚C ~ +125˚C
Storage condition	-40˚C ~ +85˚C , 70% RH Max
Soldering method	Reflow or Wave Soldering

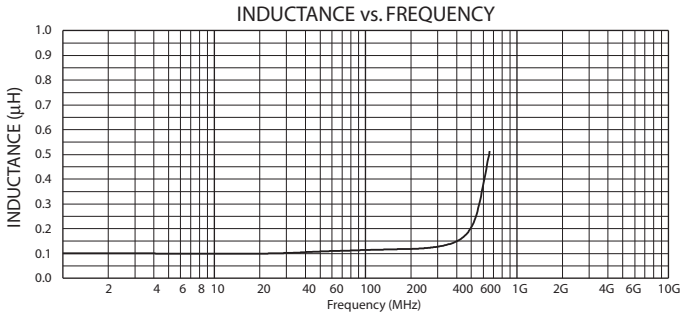
Characteristics

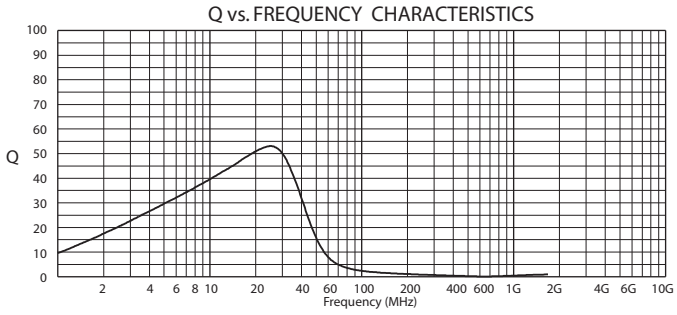
MFI1608 R047, R056. R068 & R082



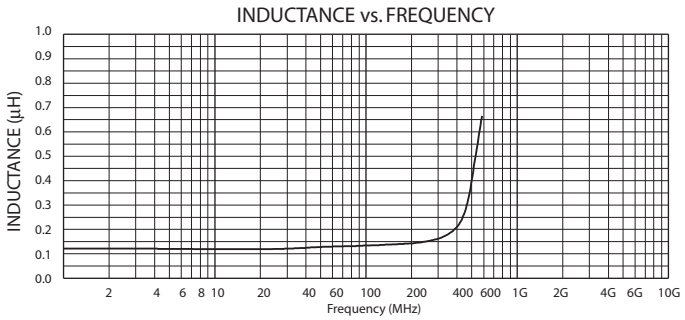


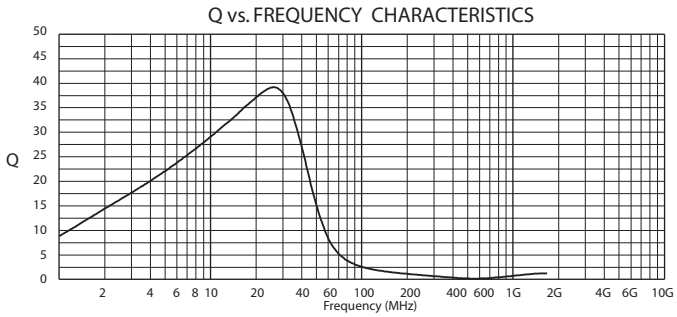
MFI1608 R10



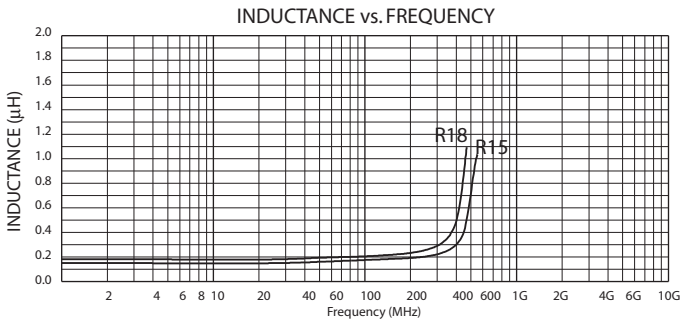


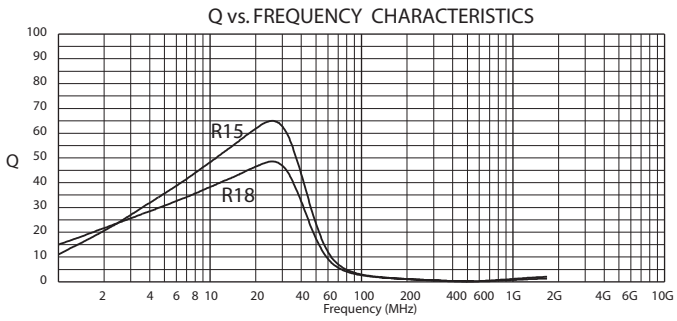
MFI1608 R12



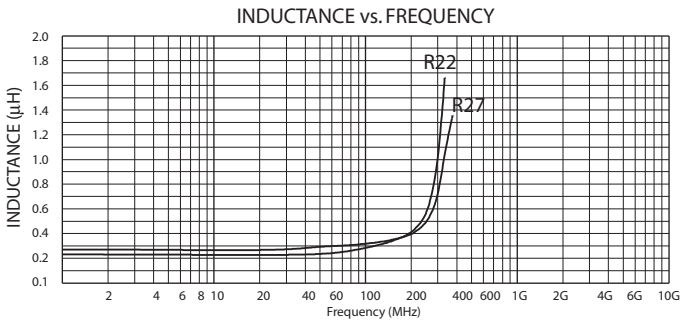


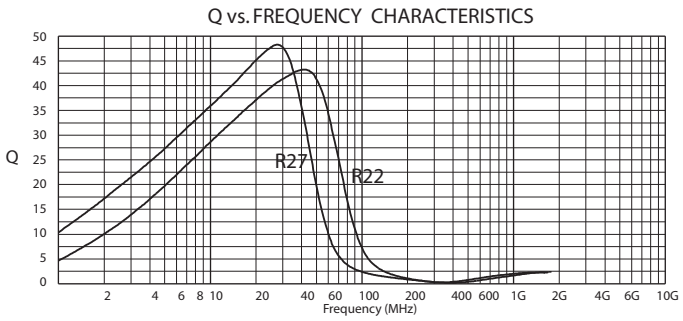
MFI1608 R15 & R18





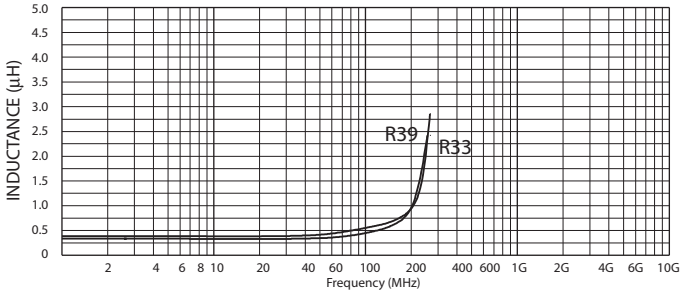
MFI1608 R22 & R27



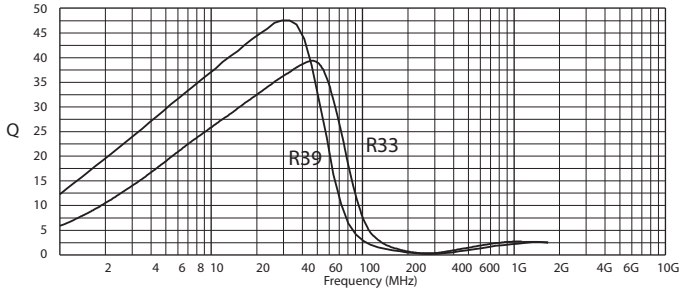


MFI1608 R33 & R39

INDUCTANCE vs. FREQUENCY

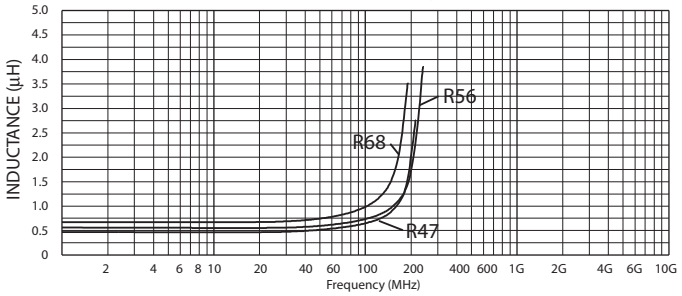


Q vs. FREQUENCY CHARACTERISTICS



MFI1608 R47, R56 & R68

INDUCTANCE vs. FREQUENCY



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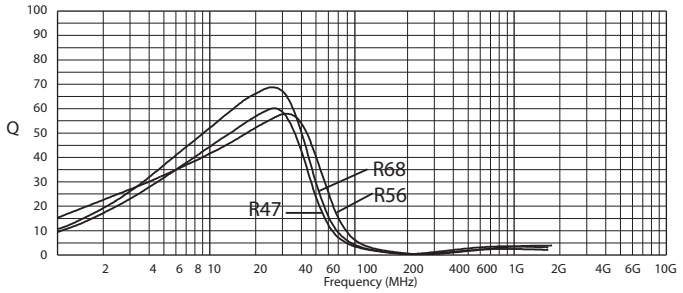
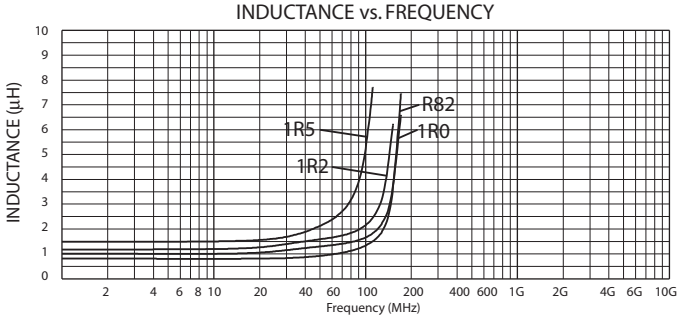
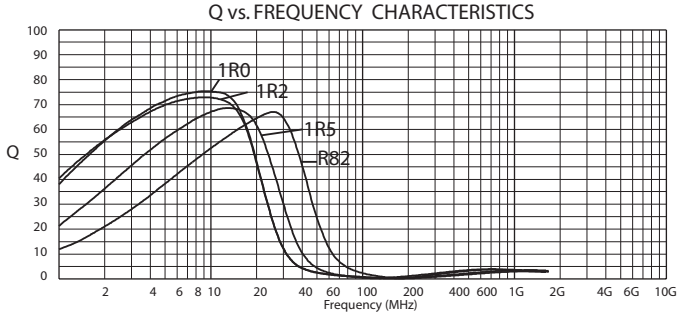


MFI1608 R82, 1R0, 1R2 & 1R5

INDUCTANCE vs. FREQUENCY

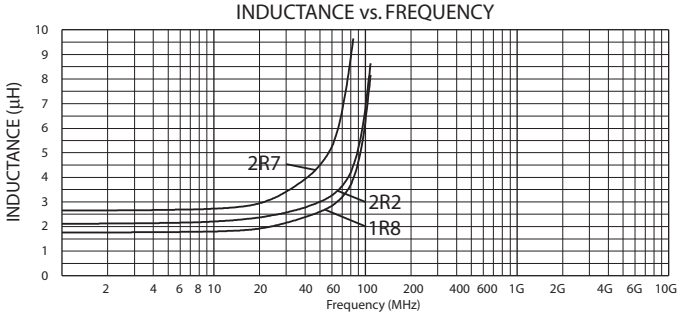


Q vs. FREQUENCY CHARACTERISTICS

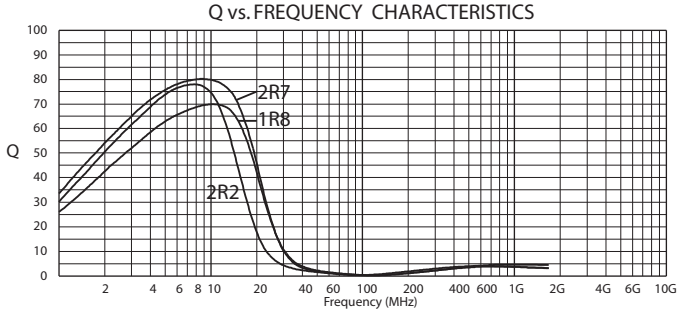


MFI1608 1R8, 2R2 & 2R7

INDUCTANCE vs. FREQUENCY

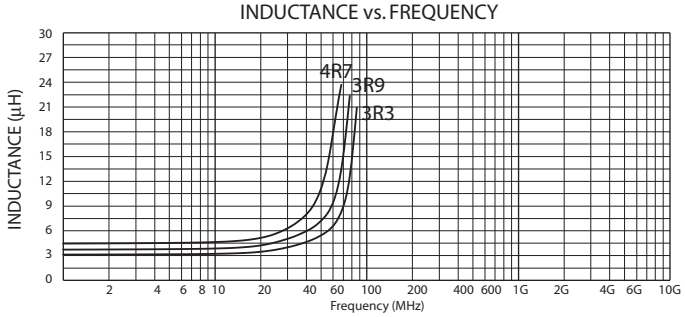


Q vs. FREQUENCY CHARACTERISTICS



MFI1608 3R3, 3R9 & 4R7

INDUCTANCE vs. FREQUENCY



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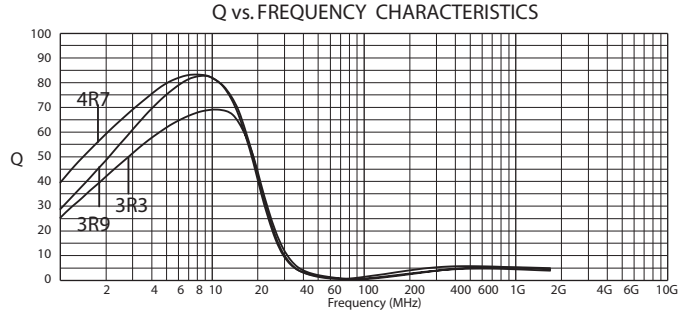
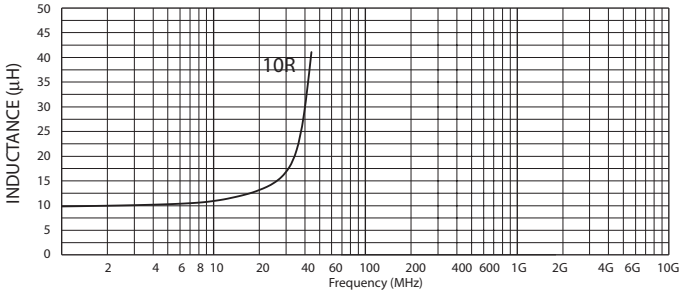


MFI1608 10R

INDUCTANCE vs. FREQUENCY



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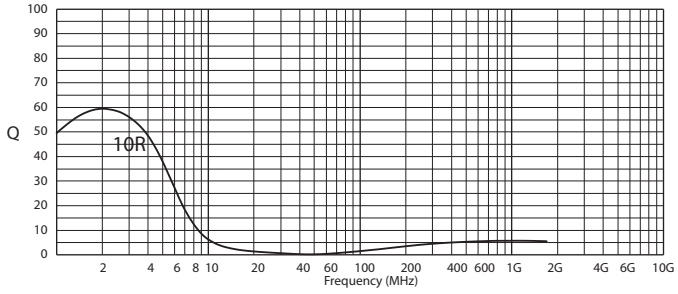
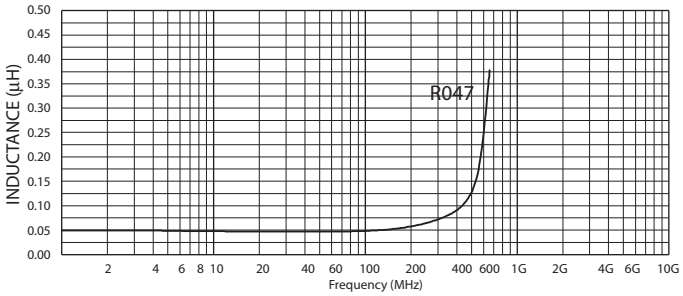
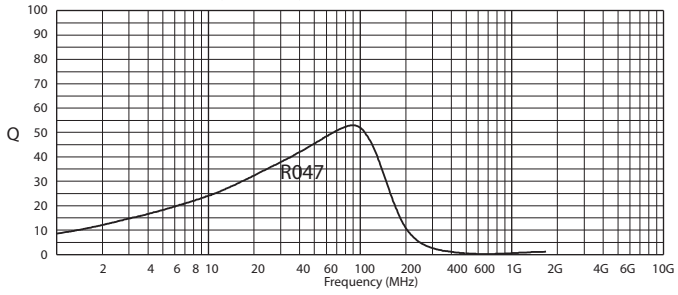


MFI2012 R047

INDUCTANCE vs. FREQUENCY

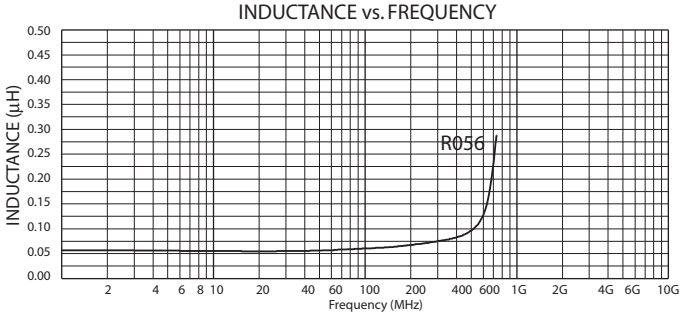


Q vs. FREQUENCY CHARACTERISTICS

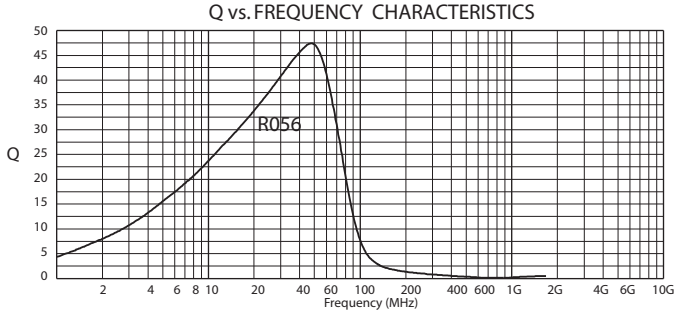


MFI2012 R056

INDUCTANCE vs. FREQUENCY

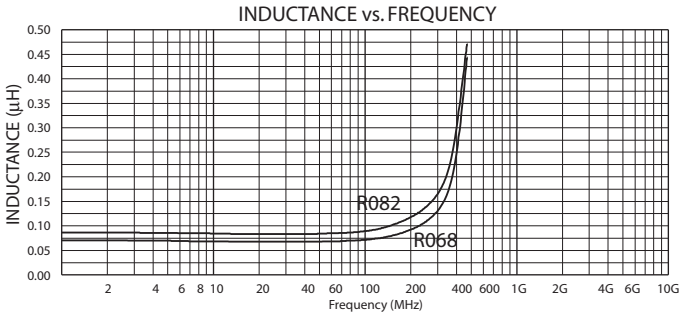


Q vs. FREQUENCY CHARACTERISTICS



MFI2012 R068 & R082

INDUCTANCE vs. FREQUENCY



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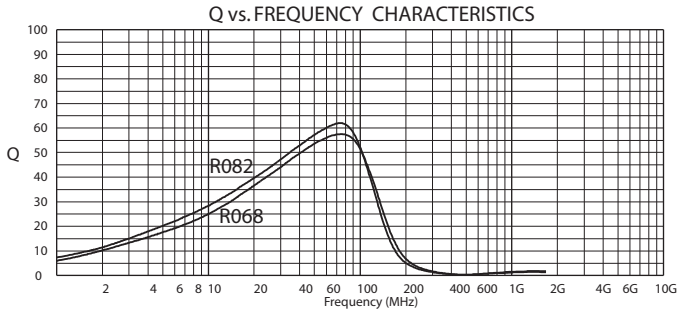
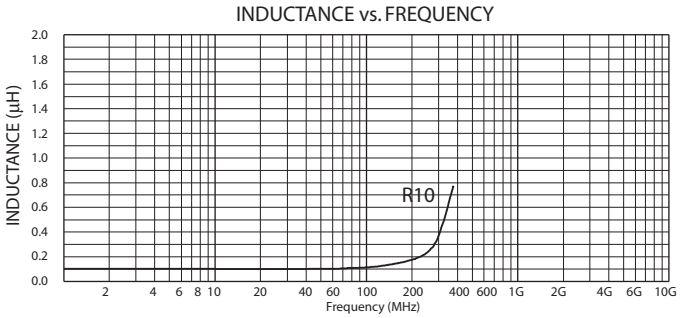
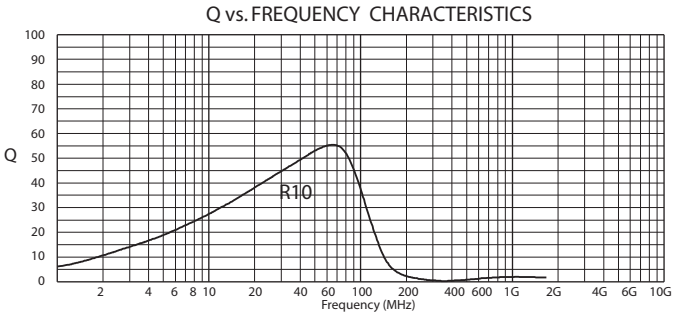


MFI2012 R10

INDUCTANCE vs. FREQUENCY

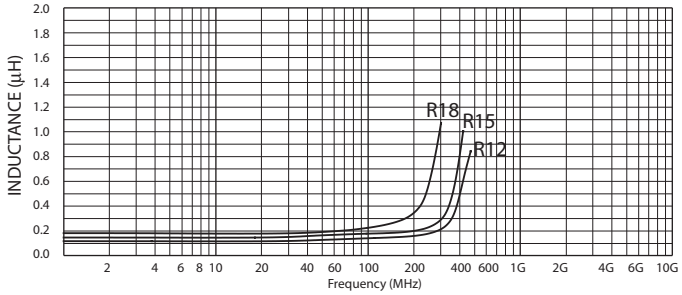


Q vs. FREQUENCY CHARACTERISTICS

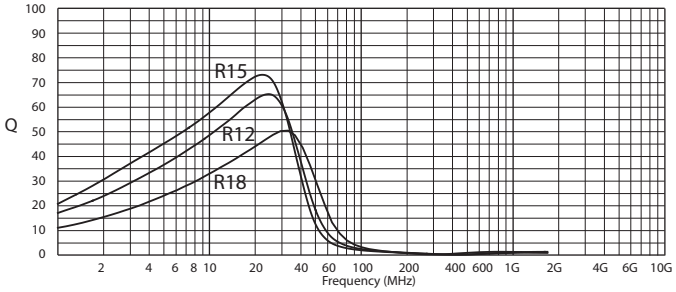


MFI2012 R12, R15, R18

INDUCTANCE vs. FREQUENCY

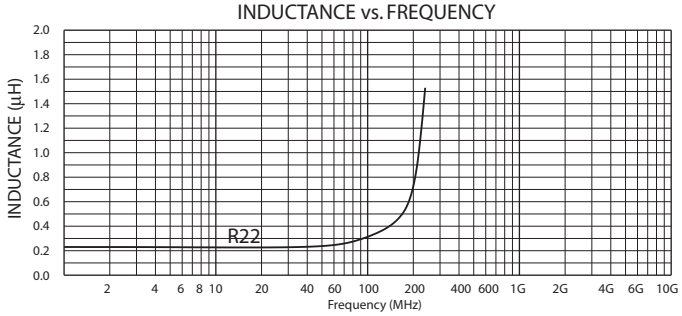


Q vs. FREQUENCY CHARACTERISTICS

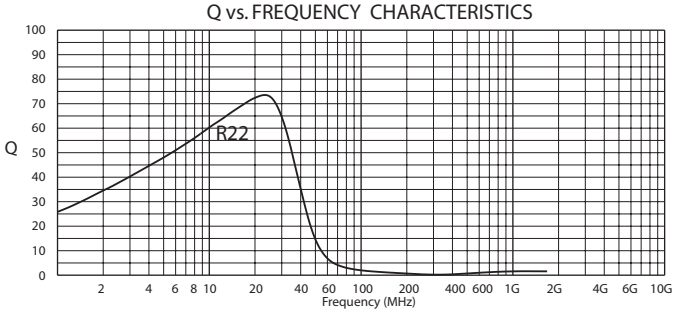


MFI2012 R22

INDUCTANCE vs. FREQUENCY

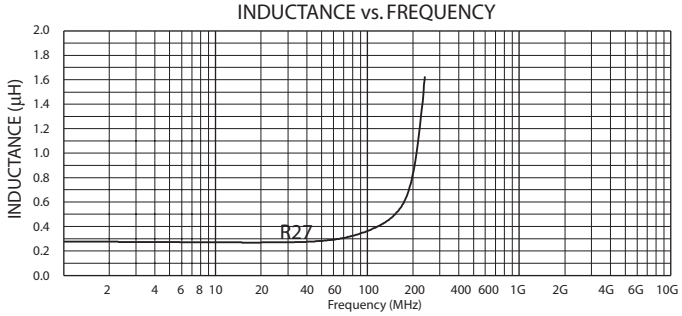


Q vs. FREQUENCY CHARACTERISTICS

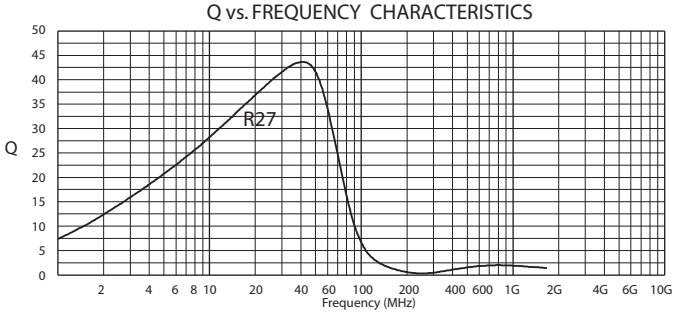


MFI2012 R27

INDUCTANCE vs. FREQUENCY

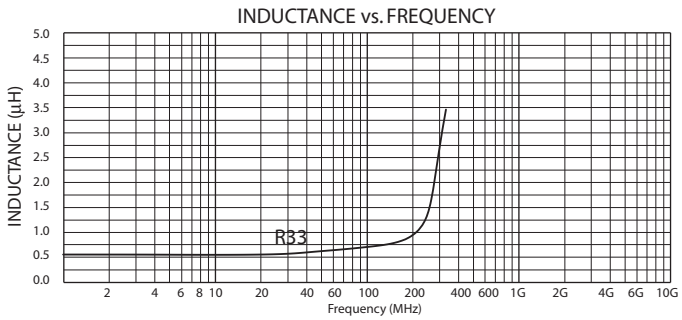


Q vs. FREQUENCY CHARACTERISTICS

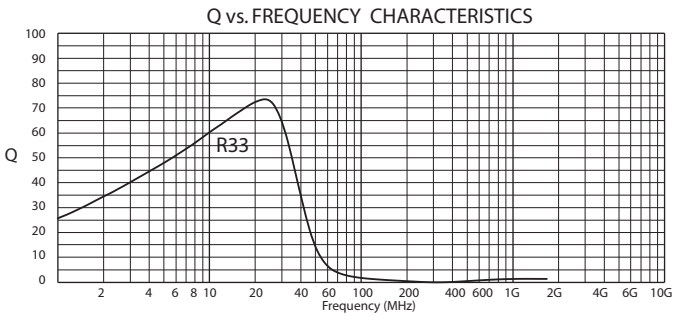


MFI2012 R33

INDUCTANCE vs. FREQUENCY

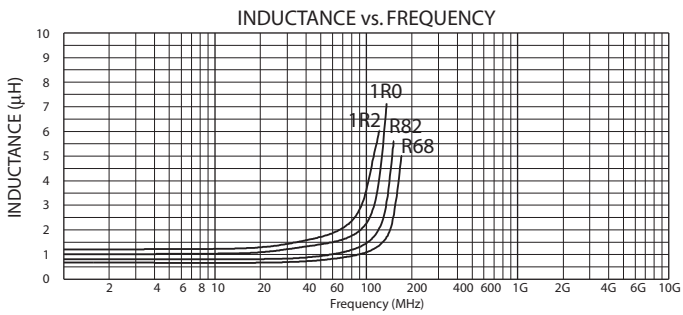


Q vs. FREQUENCY CHARACTERISTICS

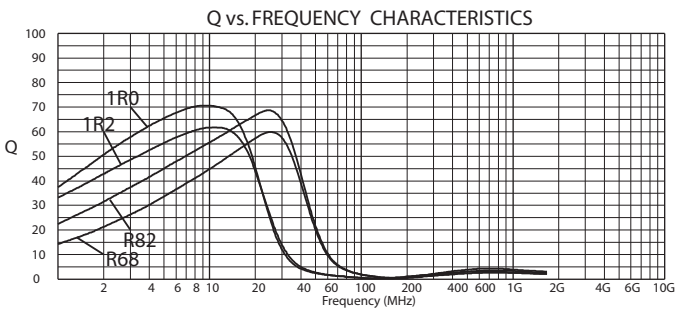


MFI2012 R68, R82, 1R0 & 1R2

INDUCTANCE vs. FREQUENCY

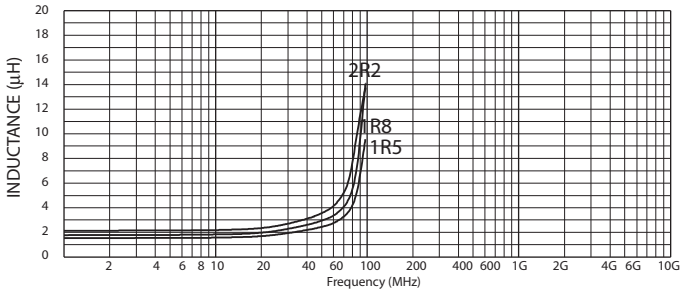


Q vs. FREQUENCY CHARACTERISTICS

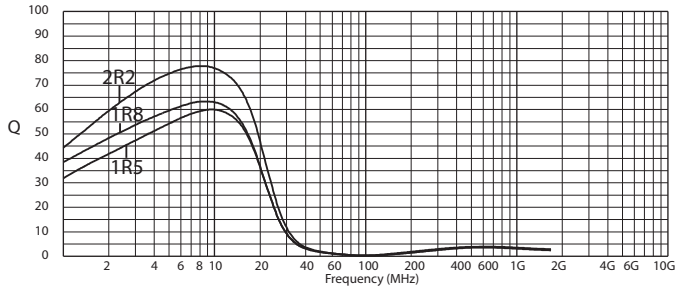


MFI2012 1R5, 1R8 & 2R2

INDUCTANCE vs. FREQUENCY

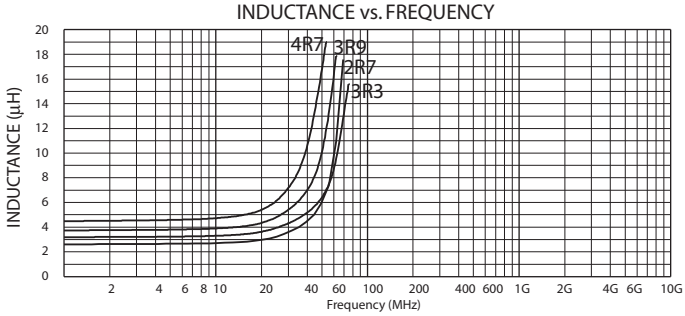


Q vs. FREQUENCY CHARACTERISTICS

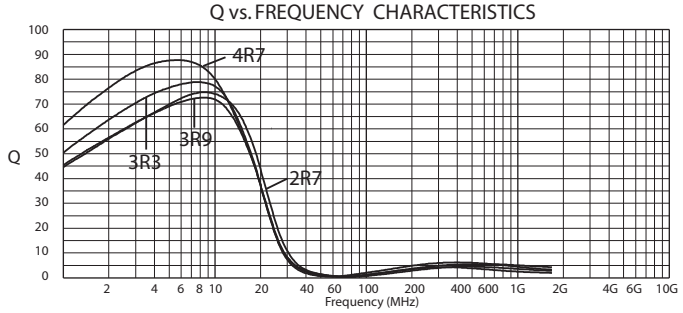


MFI2012 2R7, 3R3, 3R9 & 4R7

INDUCTANCE vs. FREQUENCY

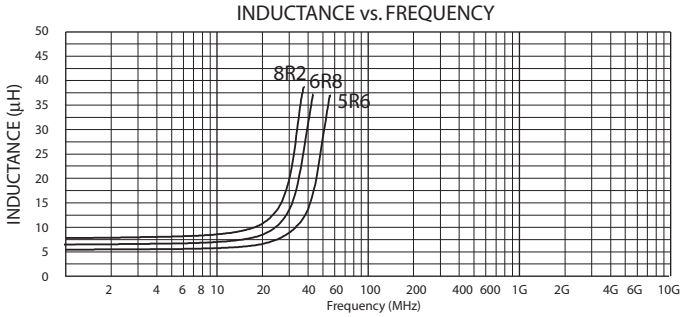


Q vs. FREQUENCY CHARACTERISTICS

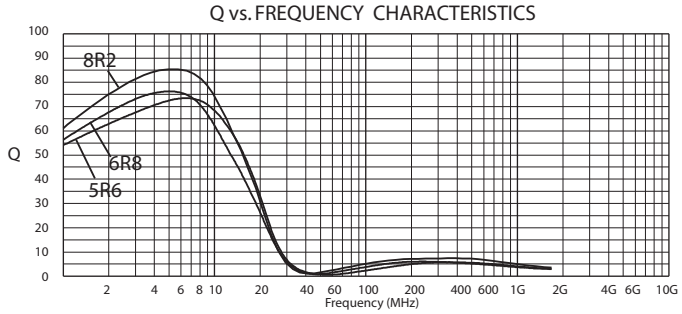


MFI2012 5R6, 6R8 & 8R2

INDUCTANCE vs. FREQUENCY

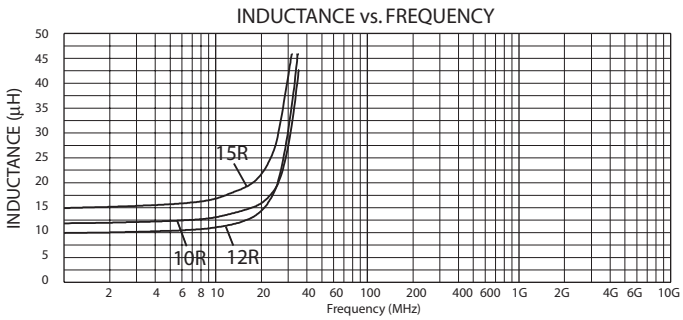


Q vs. FREQUENCY CHARACTERISTICS

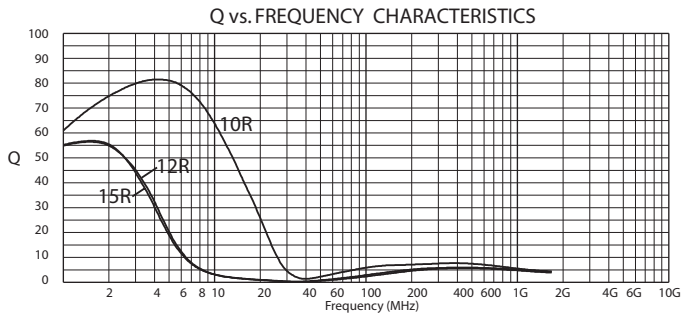


MFI2012 10R, 12R & 15R

INDUCTANCE vs. FREQUENCY

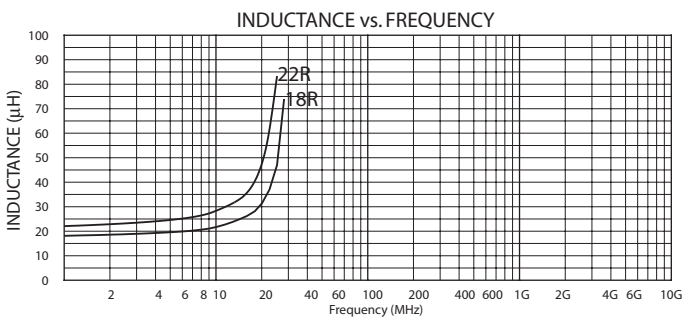


Q vs. FREQUENCY CHARACTERISTICS

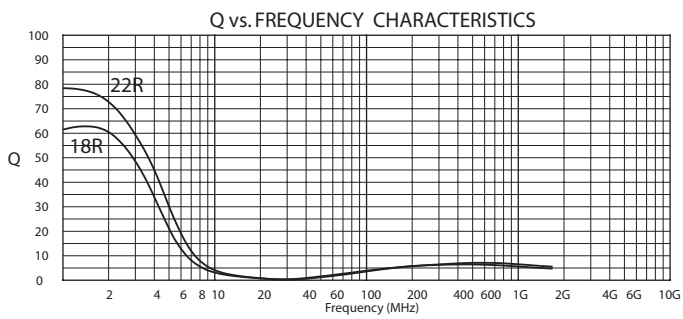


MFI2012 18R & 22R

INDUCTANCE vs. FREQUENCY

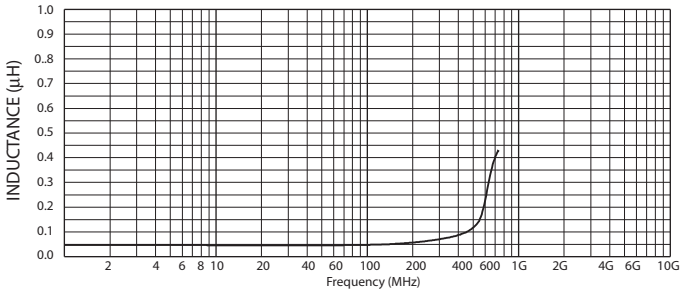


Q vs. FREQUENCY CHARACTERISTICS

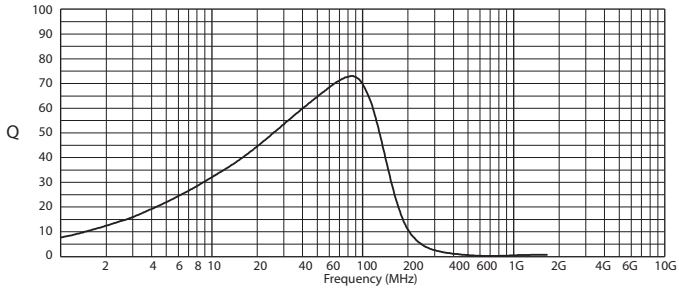


MFI3216 R047

INDUCTANCE vs. FREQUENCY

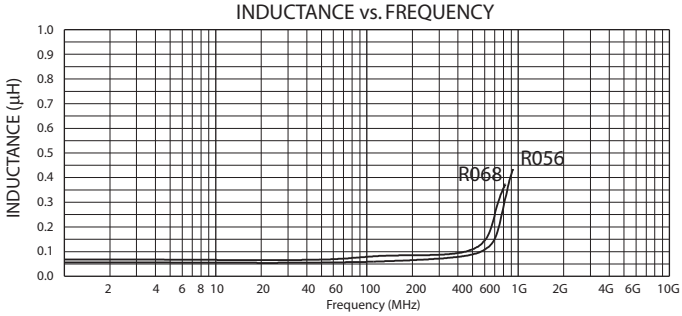


Q vs. FREQUENCY CHARACTERISTICS

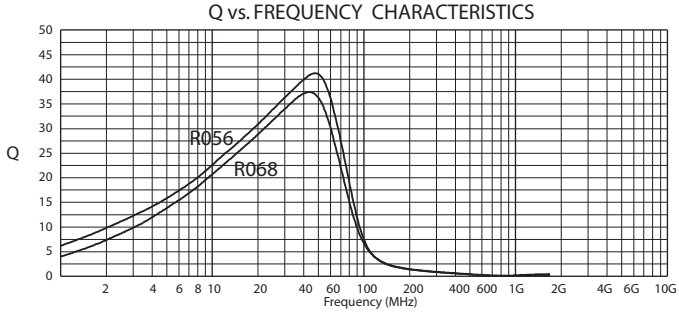


MFI3216 R056 & R068

INDUCTANCE vs. FREQUENCY

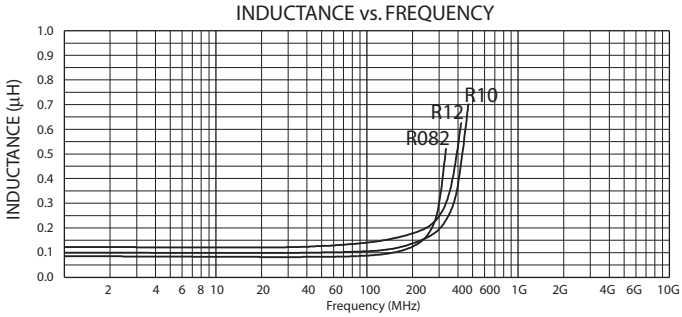


Q vs. FREQUENCY CHARACTERISTICS

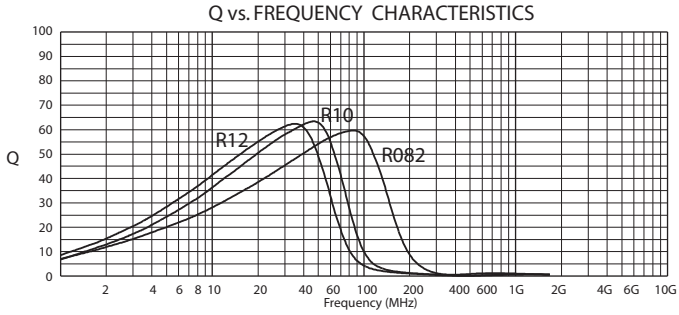


MFI3216 R082, R10 & R12

INDUCTANCE vs. FREQUENCY

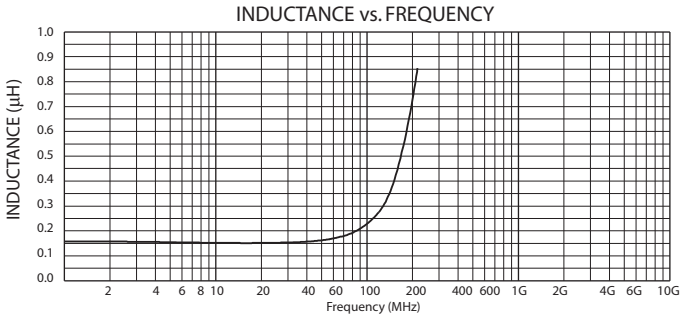


Q vs. FREQUENCY CHARACTERISTICS

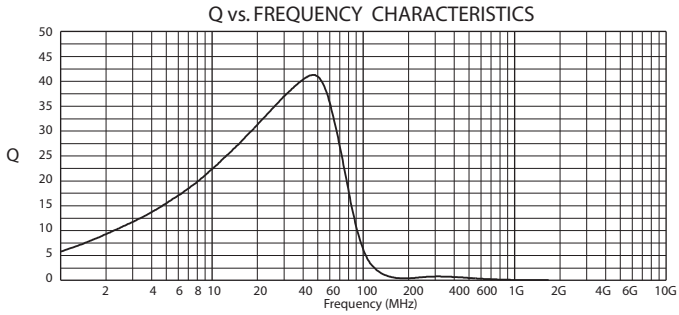


MFI3216 R15

INDUCTANCE vs. FREQUENCY

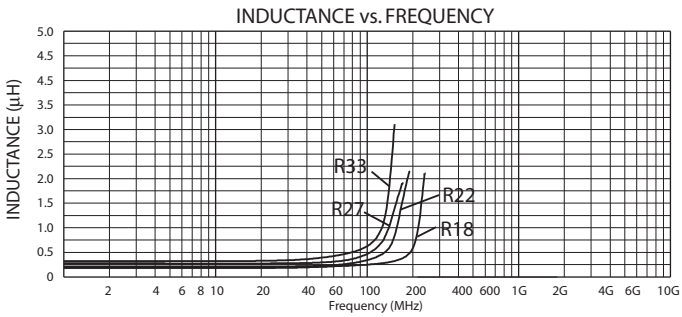


Q vs. FREQUENCY CHARACTERISTICS

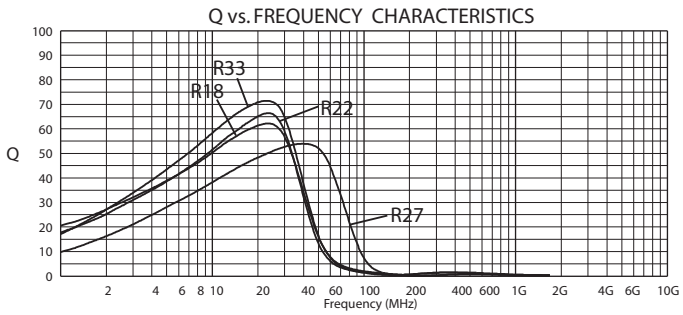


MFI3216 R18, R22, R27 & R33

INDUCTANCE vs. FREQUENCY

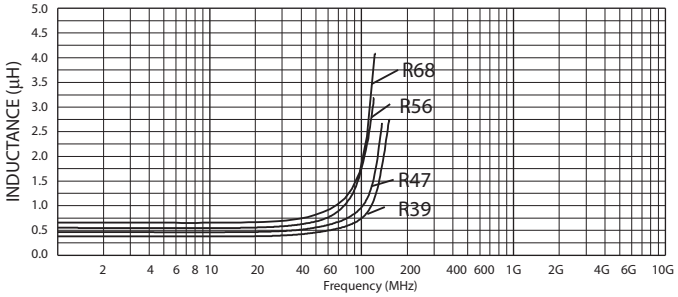


Q vs. FREQUENCY CHARACTERISTICS

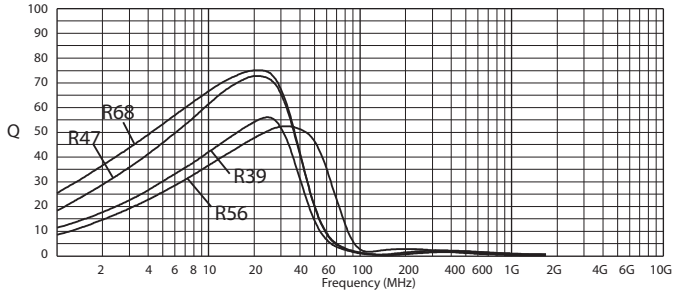


MFI3216 R39, R47, R56 & R68

INDUCTANCE vs. FREQUENCY

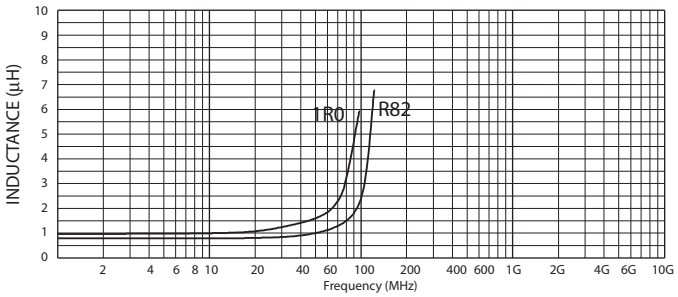


Q vs. FREQUENCY CHARACTERISTICS

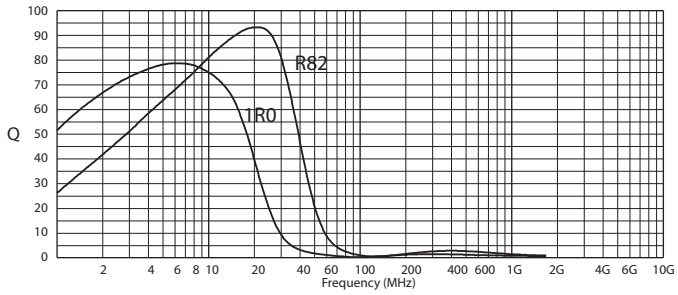


MFI3216 R82 & 1R0

INDUCTANCE vs. FREQUENCY

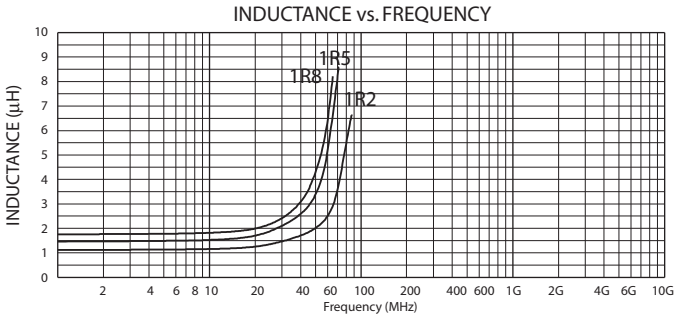


Q vs. FREQUENCY CHARACTERISTICS

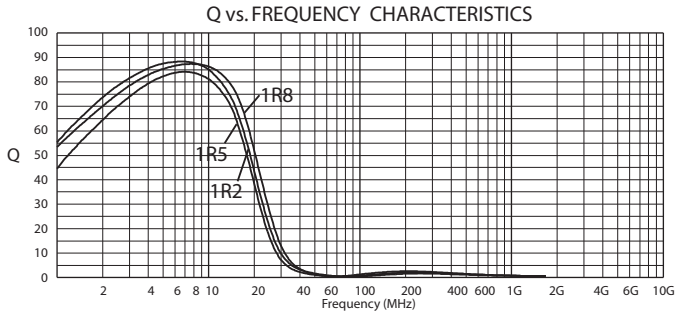


MFI3216 1R2, 1R5 & 1R8

INDUCTANCE vs. FREQUENCY

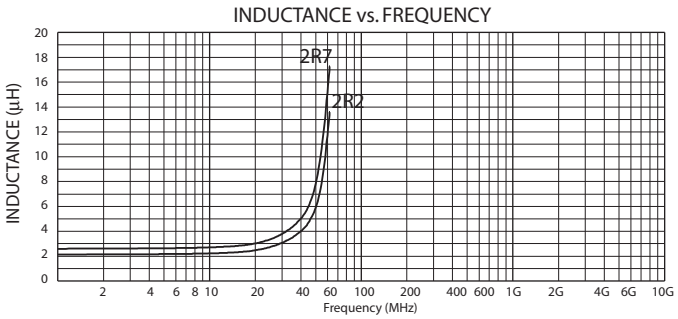


Q vs. FREQUENCY CHARACTERISTICS

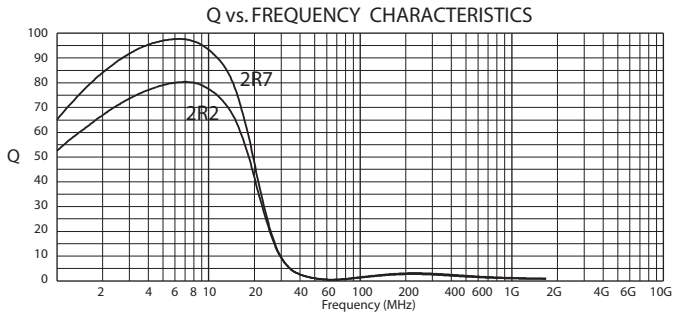


MFI3216 2R2 & 2R7

INDUCTANCE vs. FREQUENCY

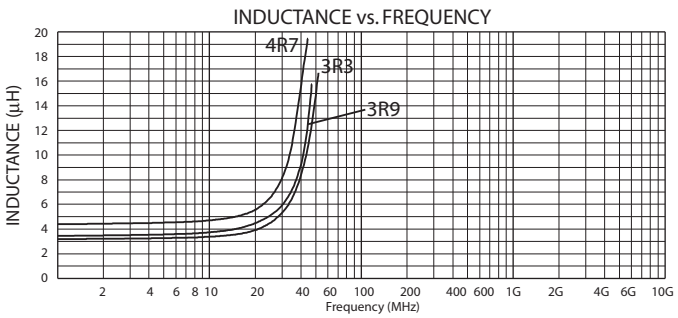


Q vs. FREQUENCY CHARACTERISTICS

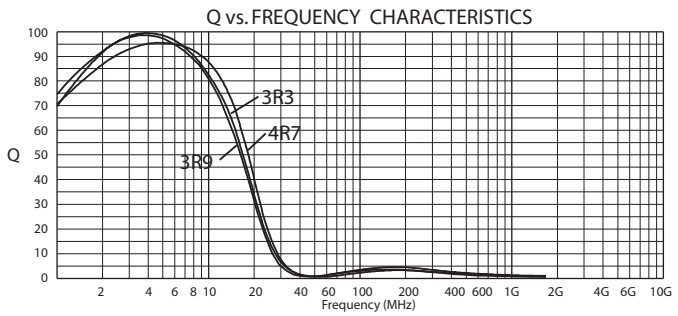


MFI3216 3R3, 3R9 & 4R7

INDUCTANCE vs. FREQUENCY

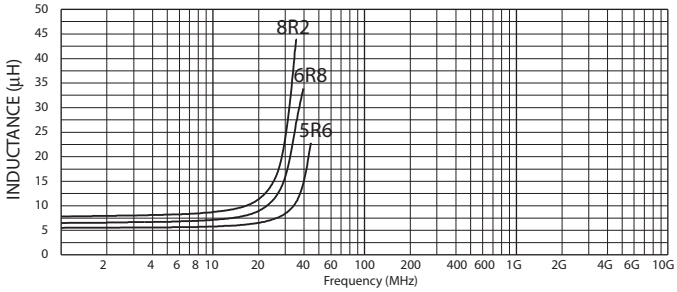


Q vs. FREQUENCY CHARACTERISTICS

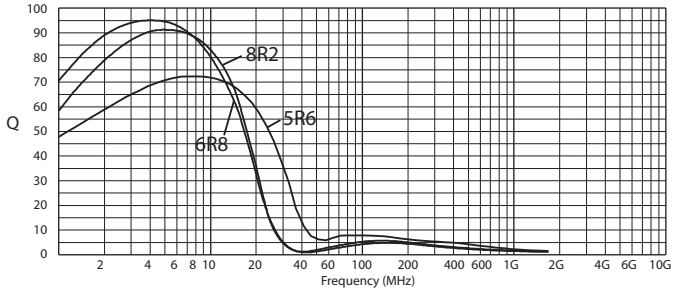


MFI3216 5R6, 6R8 & 8R2

INDUCTANCE vs. FREQUENCY

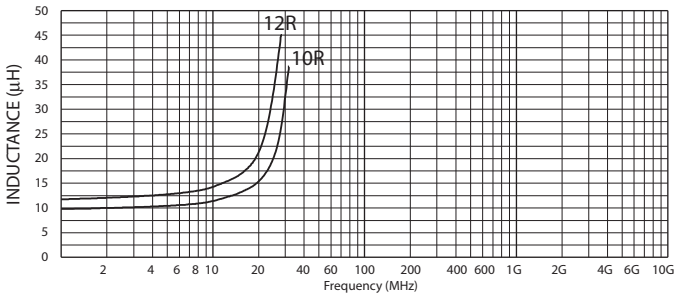


Q vs. FREQUENCY CHARACTERISTICS



MFI3216 10R & 12R

INDUCTANCE vs. FREQUENCY



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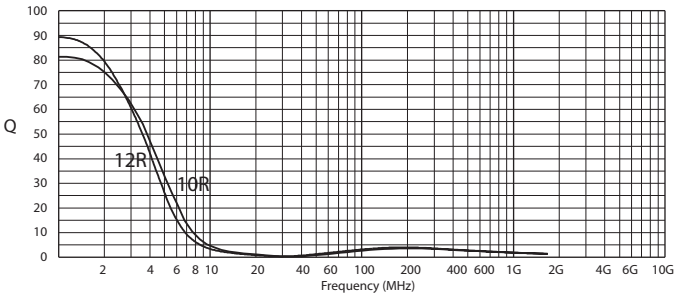
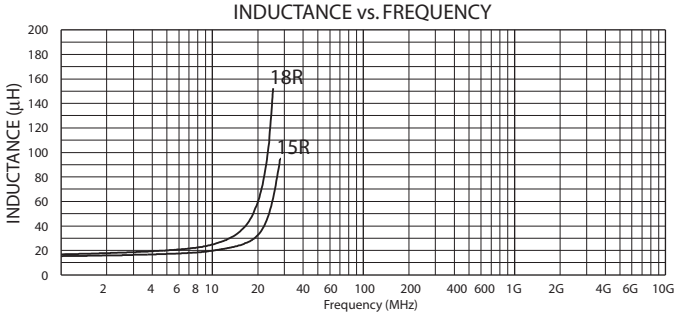
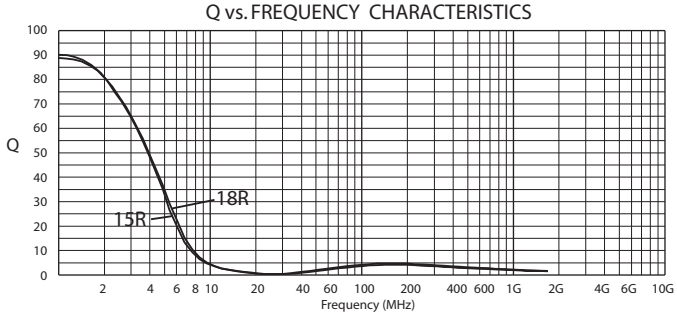


MFI3216 15R & 18R

INDUCTANCE vs. FREQUENCY

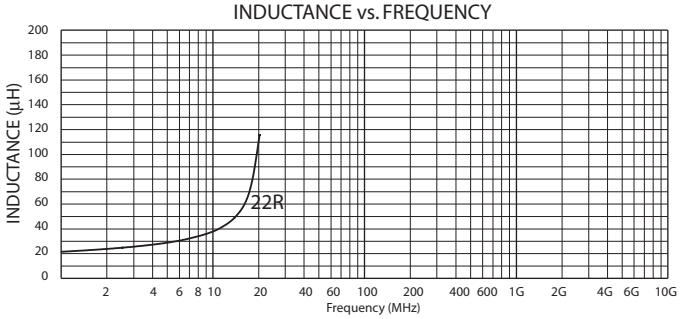


Q vs. FREQUENCY CHARACTERISTICS

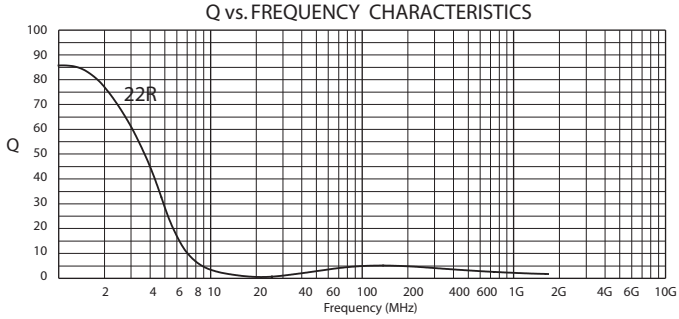


MFI3216 22R

INDUCTANCE vs. FREQUENCY



Q vs. FREQUENCY CHARACTERISTICS



▶ *Package*

Standard packing quantity

Size (EIA)	1608 (0603)	2012_09 (0805)	2012_12 (0805)	3216 (1206)
Quantity (pcs/reel)	4,000	4,000	3,000	3,000