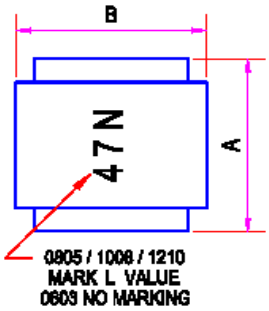
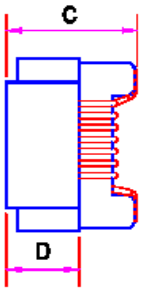
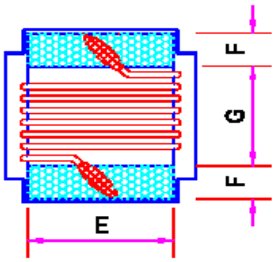
MINIATURE SMD CHIP INDUCTORS

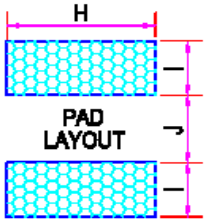
SMD 0603 0805 1008 1210 TYPE

Shape and Size :(Dimennsions are in mm)









	A max	B max	C max	D	E	F	G	H	I	J
SMDCH 0603	1.80	1.12	1.02	0.38	0.76	0.33	0.86	1.02	0.64	0.64
SMDCH 0805	2.29	1.73	1.52	0.51	1.27	0.51	1.02	1.78	1.02	0.76
SMDCH 1008	2.92	2.79	2.03	0.51	2.03	0.51	1.52	2.54	1.02	1.27
SMDCH 1210	3.56	2.92	2.23	0.51	2.10	0.51	2.03	2.54	1.02	1.78

Features :

Miniature SMD chip inductors have been designed especially for the need of today's high frequency designer.

Their ceramic construction delivers the highest possible SRF's and Q values.

The non-magnetic coilform also assures the utmost in thermal stability, predictability, and batch consistency.

Their ferrite core inductors have lower DCR and higher current ratings. The inductance values from 1.2 to 10uH.

Ordering Information :

S M D C H G R 1 0 0 8 - 4 7 N G

(1) (2) (3) (4) (5) (6) (7)

(1)Type : **S**urface **M**ount **D**evices .

(2)Material : **CH** : Ceramic, **F** : Ferrite Core .

(3)Terminal **G** : with Gold wraparound .

S : with PD/Pt/Ag wraparound

(Only for SMDFSR Type)

(4)Packaging **R** : Tape and Reel .

(5)Type 1008 : **L**=0.1 Inch **W**=0.08 Inch

(6)Inductance : **47**N for **47** nH .

(7)Inductance tolerance :

G:±2% ; **J** : ±5% ; **K** : ±10% ; **M** : ±20% .

Inductance and rated current ranges :

SMDCHGR0603	1.6~270nH	0.7~0.17A
SMDCHGR0805	2.2~820nH	0.6~0.18A
SMDCHGR1008	10~10000nH	1.0~0.16A
SMDFSR1008	1.2~10.0uH	0.65~0.30A
SMDCHGR1210	10~4700nH	1.0~0.23A

Test equipments :

L & Q & SRF : HP4291B RF Impedance Analyzer with HP16193A test fixture.

DCR : Milli-ohm meter .

Electrical specifications at 25 .

Characteristics :

Rated DC current : Based on the temperature rise not exceeding 15 .

Operating temp. : -40 to 125 (Ceramic)

-40

Applications :

Pagers, Cordless phone .

High Freq. Communication Products .

GPS(Global Position System) .

MINIATURES SMD CHIP INDUCTORS

SMDCH R0603 TYPE

PART NO.	L nH	Tole.	Q Min	Test Freq. MHz	SRF (MHz) Min	DCR (OHM) Max	I ,dc (mA) Max	900 MHz		1.7 GHz	
								L Typ	Q Typ	L Typ	Q Typ
SMDCH R0603 - 1N6	1.6	M K	24	250	12500	0.030	700	1.67	49	1.65	63
SMDCH R0603 - 1N8	1.8	M K	16	250	12500	0.045	700	1.63	35	1.66	50
SMDCH R0603 - 3N6	3.6	M K	22	250	5900	0.063	700	3.72	53	3.71	65
SMDCH R0603 - 3N9	3.9	M K J	22	250	6900	0.080	700	3.95	49	3.96	67
SMDCH R0603 - 4N3	4.3	M,K,J	22	250	5900	0.063	700	4.32	50	4.33	70
SMDCH R0603 - 4N7	4.7	M,K,J	20	250	5800	0.116	700	4.72	47	4.75	57
SMDCH R0603 - 5N1	5.1	M,K,J	20	250	5700	0.140	700	4.93	47	4.95	56
SMDCH R0603 - 6N8	6.8	M K J	27	250	5800	0.110	700	6.75	60	7.10	81
SMDCH R0603 - 7N5	7.5	M K J	28	250	4800	0.106	700	7.70	60	7.82	65
SMDCH R0603 - 8N7	8.7	M K J	28	250	4600	0.109	700	8.86	62	9.32	68
SMDCH R0603 - 9N5	9.5	M,K,J	28	250	5400	0.135	700	9.70	59	9.92	61
SMDCH R0603 - 10N	**10**	**K J G**	**31**	**250**	**4800**	**0.130**	**700**	**10.0**	**66**	**10.6**	**83**
SMDCH R0603 - 11N	11	K J G	33	250	4000	0.086	700	11.0	53	11.5	56
SMDCH R0603 - 12N	12	K J G	35	250	4000	0.130	700	12.3	72	13.5	83
SMDCH R0603 - 15N	15	K J G	35	250	4000	0.170	700	15.4	64	16.8	89
SMDCH R0603 - 16N	16	K J G	34	250	3300	0.104	700	16.2	55	17.3	52
SMDCH R0603 - 18N	18	K J G	35	250	3100	0.170	700	18.7	70	21.4	69
SMDCH R0603 - 22N	22	K J G	38	250	3000	0.190	700	22.8	73	26.1	71
SMDCH R0603 - 24N	24	K J G	37	250	2650	0.135	700	24.5	45	28.7	39
SMDCH R0603 - 27N	27	K J G	40	250	2800	0.220	600	29.2	74	34.6	65
SMDCH R0603 - 30N	30	K J G	37	250	2250	0.144	600	31.4	47	39.9	28
SMDCH R0603 - 33N	33	K J G	40	250	2300	0.220	600	36.0	67	49.5	42
SMDCH R0603 - 36N	36	K J G	38	250	2080	0.250	600	39.4	47	52.7	24
SMDCH R0603 - 39N	39	K J G	40	250	2200	0.250	600	42.7	60	60.2	40
SMDCH R0603 - 43N	43	K J G	39	250	2000	0.280	600	47.0	44	64.9	21
SMDCH R0603 - 47N	47	K J G	38	200	2000	0.280	600	52.2	62	77.2	35
SMDCH R0603 - 56N	56	M K J	38	200	1900	0.310	600	62.5	52	97.0	26
SMDCH R0603 - 68N	68	M K J	37	200	1700	0.340	600	80.5	54	168	21
SMDCH R0603 - 72N	72	M K J	34	150	1700	0.490	400	82.0	53	135	20
SMDCH R0603 - 82N	82	M K J	34	150	1700	0.540	400	96.2	54	177	21
SMDCH R0603 - R10	**100**	**M K J**	**34**	**150**	**1400**	**0.580**	**400**	**124**	**49**	**--**	**--**
SMDCH R0603 - R11	110	M K J	32	150	1350	0.610	300	138	43	--	--
SMDCH R0603 - R12	120	M K J	32	150	1300	0.650	300	166	39	--	--
SMDCH R0603 - R15	150	M K J	28	150	990	0.920	280	250	25	--	--
SMDCH R0603 - R18	180	M K J	25	100	990	1.250	240	305	22	--	--
SMDCH R0603 - R22	220	M K J	25	100	900	1.900	200	480	8	--	--
SMDCH R0603 - R27	270	M K J	24	100	900	2.300	170	980	4	--	--

MINIATURE SMD CHIP INDUCTORS

3L COILS

SMDCH R 0805 TYPE

Part Number	Inductance	Tole.	Quality Factor (Min)	Testing Freq. (MHz) L	Testing Freq. (MHz) Q	SRF (MHz) Min	DCR (OHM) Max	I dc (mA) Max
SMDCH R0805 - 2N2	2.2 nH	M K	15	250	1500	6000	0.08	600
SMDCH R0805 - 3N3	3.3 nH	M K	50	250	1500	6000	0.08	600
SMDCH R0805 - 6N8	6.8 nH	M K J	50	250	1000	5500	0.11	600
SMDCH R0805 - 8N2	8.2 nH	M K	35	250	500	4700	0.12	600
SMDCH R0805 - 10N	**10 nH**	**M K,J**	**50**	**250**	**500**	**4300**	**0.14**	**600**
SMDCH R0805 - 12N	12 nH	K J G	50	250	500	4000	0.15	600
SMDCH R0805 - 15N	15 nH	M K J	50	250	500	3400	0.17	600
SMDCH R0805 - 18N	18 nH	K J G	50	250	500	3300	0.20	600
SMDCH R0805 - 22N	22 nH	K J G	55	250	500	2600	0.22	500
SMDCH R0805 - 27N	27 nH	K J G	55	250	500	2500	0.25	500
SMDCH R0805 - 33N	33 nH	K J G	60	250	500	2050	0.27	500
SMDCH R0805 - 39N	39 nH	K J G	60	250	500	2000	0.29	500
SMDCH R0805 - 47N	47 nH	K J G	60	200	500	1650	0.31	500
SMDCH R0805 - 56N	56 nH	K J G	60	200	500	1550	0.34	500
SMDCH R0805 - 68N	68 nH	K J G	60	200	500	1450	0.38	500
SMDCH R0805 - 82N	82 nH	K J G	65	150	500	1300	0.42	400
SMDCH R0805 - R10	**0.1uH**	**K J G**	**65**	**150**	**500**	**1200**	**0.46**	**400**
SMDCH R0805 - R12	0.12uH	K J G	50	150	250	1100	0.51	400
SMDCH R0805 - R15	0.15uH	K J G	50	100	250	920	0.56	400
SMDCH R0805 - R18	0.18uH	M K J	50	100	250	870	0.64	400
SMDCH R0805 - R22	0.22uH	M K J	50	100	250	850	0.70	400
SMDCH R0805 - R27	0.27uH	M K J	48	100	250	650	1.10	350
SMDCH R0805 - R33	0.33uH	M K J	48	100	250	600	1.40	310
SMDCH R0805 - R39	0.39uH	M K J	48	100	250	560	1.50	290
SMDCH R0805 - R47	0.47uH	M K J	33	50	100	375	1.76	250
SMDCH R0805 - R56	0.56uH	M K J	23	25	50	340	1.90	230
SMDCH R0805 - R68	0.68uH	M K J	23	25	50	188	2.20	190
SMDCH R0805 - R82	0.82uH	M K J	23	25	50	215	2.35	180

MINIATURE SMD CHIP INDUCTORS

3L COILS

SMDCH R 1008 TYPE

Part Number	Inductance	Tole.	Quality Factor (Min)	Testing Freq. (MHz)		SRF (MHz)	DCR (OHM)	I dc (mA)
				L	Q	Min	Max	Max
SMDCH R1008 - 10N	**10 nH**	**M K J**	**50**	**50**	**500**	**4100**	**0.08**	**1000**
SMDCH R1008 - 12N	12 nH	M K J	50	50	500	3300	0.09	1000
SMDCH R1008 - 15N	15 nH	M K	50	50	500	2500	0.10	1000
SMDCH R1008 - 18N	18 nH	M K J	50	50	350	2500	0.11	1000
SMDCH R1008 - 22N	22 nH	M K J	55	50	350	2400	0.12	1000
SMDCH R1008 - 27N	27 nH	M K	55	50	350	1600	0.13	1000
SMDCH R1008 - 33N	33 nH	K J G	60	50	350	1600	0.14	1000
SMDCH R1008 - 39N	39 nH	K J G	60	50	350	1500	0.15	1000
SMDCH R1008 - 47N	47 nH	K J G	65	50	350	1500	0.16	1000
SMDCH R1008 - 56N	56 nH	K J G	65	50	350	1300	0.18	1000
SMDCH R1008 - 68N	68 nH	K J G	65	50	350	1300	0.20	1000
SMDCH R1008 - 82N	82 nH	K J G	60	50	350	1000	0.22	1000
SMDCH R1008 - R10	**0.10uH**	**K J G**	**60**	**25**	**350**	**1000**	**0.56**	**650**
SMDCH R1008 - R12	0.12uH	K J G	60	25	350	950	0.63	650
SMDCH R1008 - R15	0.15uH	K J G	45	25	100	850	0.70	580
SMDCH R1008 - R18	0.18uH	K J G	45	25	100	750	0.77	620
SMDCH R1008 - R22	0.22uH	K J G	45	25	100	700	0.84	500
SMDCH R1008 - R27	0.27uH	K J G	45	25	100	600	0.91	500
SMDCH R1008 - R33	0.33uH	K J G	45	25	100	570	1.05	450
SMDCH R1008 - R39	0.39uH	K J G	45	25	100	500	1.12	470
SMDCH R1008 - R47	0.47uH	K J G	45	25	100	450	1.19	470
SMDCH R1008 - R56	0.56uH	K J G	45	25	100	415	1.33	400
SMDCH R1008 - R62	0.62uH	K J G	45	25	100	375	1.40	300
SMDCH R1008 - R68	0.68uH	K J G	45	25	100	375	1.47	400
SMDCH R1008 - R75	0.75uH	M K J	45	25	100	360	1.54	360
SMDCH R1008 - R82	0.82uH	M K J	45	25	100	350	1.61	400
SMDCH R1008 - R91	0.91uH	M K J	35	25	50	320	1.68	380
SMDCH R1008 - 1R0	**1.0 uH**	**M K J**	**35**	**25**	**50**	**290**	**1.75**	**370**
SMDCH R1008 - 1R2	1.2 uH	M K J	35	7.9	50	250	2.00	310
SMDCH R1008 - 1R5	1.5 uH	M K J	28	7.9	50	200	2.30	330
SMDCH R1008 - 1R8	1.8 uH	M K J	28	7.9	50	160	2.60	300
SMDCH R1008 - 2R2	2.2 uH	M K J	28	7.9	50	160	2.80	280
SMDCH R1008 - 2R7	2.7 uH	M K J	22	7.9	25	140	3.20	290
SMDCH R1008 - 3R3	3.3 uH	M K J	22	7.9	25	110	3.40	290
SMDCH R1008 - 3R9	3.9 uH	M K J	20	7.9	25	100	3.60	260
SMDCH R1008 - 4R7	4.7 uH	M K J	20	7.9	25	90	4.00	260
SMDCH R1008 - 5R6	5.6 uH	M K J	20	7.9	7.9	80	6.80	190
SMDCH R1008 - 6R8	6.8 uH	M K J	20	7.9	7.9	70	7.50	180
SMDCH R1008 - 8R2	8.2 uH	M K J	20	7.9	7.9	60	8.20	170
SMDCH R1008 - 100	**10 uH**	**M K J**	**20**	**7.9**	**7.9**	**55**	**9.10**	**160**

MINIATURE SMD CHIP INDUCTORS

SMDFSR 1008 TYPE

Part Number	Inductance	Tole.	Quality Factor (Min)	Testing Freq. (MHz)		SRF (MHz) Min	DCR (OHM) Max	I dc (mA) Max
				L	Q			
SMDFSR1008 - 1R2	1.2 uH	M K J	48	7.9	50	210	0.68	650
SMDFSR1008 - 1R5	1.5 uH	M K J	41	7.9	50	190	0.76	630
SMDFSR1008 - 1R8	1.8 uH	M K J	39	7.9	50	170	0.84	600
SMDFSR1008 - 2R2	2.2 uH	M K J	34	7.9	50	150	1.10	520
SMDFSR1008 - 2R7	2.7 uH	M K J	34	7.9	50	135	1.28	490
SMDFSR1008 - 3R3	3.3 uH	M K J	32	7.9	50	120	1.46	450
SMDFSR1008 - 3R9	3.9 uH	M K J	32	7.9	7.9	105	1.56	420
SMDFSR1008 - 4R7	4.7 uH	M K J	31	7.9	7.9	90	1.68	400
SMDFSR1008 - 5R6	5.6 uH	M K J	31	7.9	7.9	80	1.82	380
SMDFSR1008 - 6R8	6.8 uH	M K J	31	7.9	7.9	70	2.00	360
SMDFSR1008 - 8R2	8.2 uH	M K J	23	7.9	7.9	65	2.65	330
SMDFSR1008 - 100	**10.0 uH**	**M K J**	**31**	**7.9**	**7.9**	**60**	**2.95**	**300**

MINIATURE SMD CHIP INDUCTORS

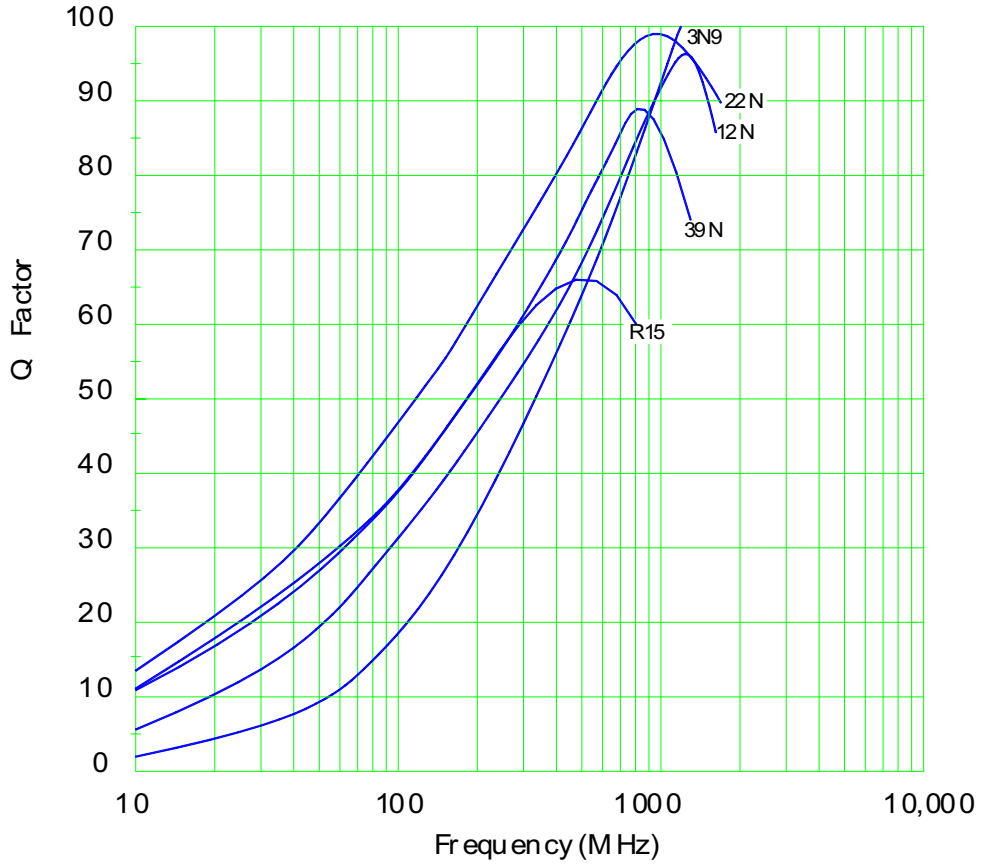
SMDCH R 1210 TYPE

Part Number	Inductance	Tole.	Quality Factor (Min)	Testing Freq. (MHz) L	Testing Freq. (MHz) Q	SRF (MHz) Min	DCR (OHM) Max	I dc (mA) Max
SMDCH R1210 - 10N	**10 nH**	**M K J**	**50**	**50**	**500**	**4100**	**0.08**	**1000**
SMDCH R1210 - 12N	12 nH	M K J	50	50	500	3300	0.09	1000
SMDCH R1210 - 15N	15 nH	M K	50	50	500	2500	0.10	1000
SMDCH R1210 - 18N	18 nH	M K J	50	50	350	2500	0.11	1000
SMDCH R1210 - 22N	22 nH	M K J	55	50	350	2400	0.12	1000
SMDCH R1210 - 27N	27 nH	M,K J	55	50	350	1600	0.13	1000
SMDCH R1210 - 33N	33 nH	K J G	60	50	350	1600	0.14	1000
SMDCH R1210 - 39N	39 nH	K J G	60	50	350	1500	0.15	1000
SMDCH R1210 - 47N	47 nH	K J G	65	50	350	1500	0.16	1000
SMDCH R1210 - 56N	56 nH	K J G	65	50	350	1300	0.18	1000
SMDCH R1210 - 68N	68 nH	K J G	65	50	350	1300	0.20	1000
SMDCH R1210 - 82N	82 nH	K J G	60	50	350	1000	0.22	1000
SMDCH R1210 - R10	**0.10uH**	**K J G**	**60**	**25**	**350**	**1000**	**0.24**	**980**
SMDCH R1210 - R12	0.12uH	K J G	60	25	350	950	0.26	920
SMDCH R1210 - R15	0.15uH	K J G	45	25	100	850	0.29	870
SMDCH R1210 - R18	0.18uH	K J G	45	25	100	750	0.31	830
SMDCH R1210 - R22	0.22uH	K J G	45	25	100	700	0.35	790
SMDCH R1210 - R27	0.27uH	K J G	45	25	100	600	0.42	730
SMDCH R1210 - R33	0.33uH	K J G	45	25	100	570	0.49	680
SMDCH R1210 - R39	0.39uH	K J G	45	25	100	500	0.54	640
SMDCH R1210 - R47	0.47uH	K J G	45	25	100	450	0.60	610
SMDCH R1210 - R56	0.56uH	K J G	45	25	100	415	1.00	460
SMDCH R1210 - R62	0.62uH	K J G	45	25	100	375	1.08	430
SMDCH R1210 - R68	0.68uH	K J G	45	25	100	375	1.15	420
SMDCH R1210 - R75	0.75uH	K J G	45	25	100	360	1.20	410
SMDCH R1210 - R82	0.82uH	K J G	45	25	100	350	1.93	350
SMDCH R1210 - R91	0.91uH	K J G	45	25	100	320	2.02	340
SMDCH R1210 - 1R0	**1.0 uH**	**K J G**	**45**	**25**	**100**	**290**	**2.16**	**330**
SMDCH R1210 - 1R2	1.2 uH	M K J	45	7.9	100	250	2.38	310
SMDCH R1210 - 1R5	1.5 uH	M K J	35	7.9	50	200	2.64	300
SMDCH R1210 - 1R8	1.8 uH	M K J	30	7.9	50	160	2.76	290
SMDCH R1210 - 2R2	2.2 uH	M K J	25	7.9	50	160	2.98	280
SMDCH R1210 - 2R7	2.7 uH	M K J	22	7.9	25	140	3.30	260
SMDCH R1210 - 3R3	3.3 uH	M K J	22	7.9	25	110	3.66	250
SMDCH R1210 - 3R9	3.9 uH	M K J	22	7.9	7.9	100	4.00	240
SMDCH R1210 - 4R7	4.7 uH	M K J	22	7.9	7.9	90	4.30	230

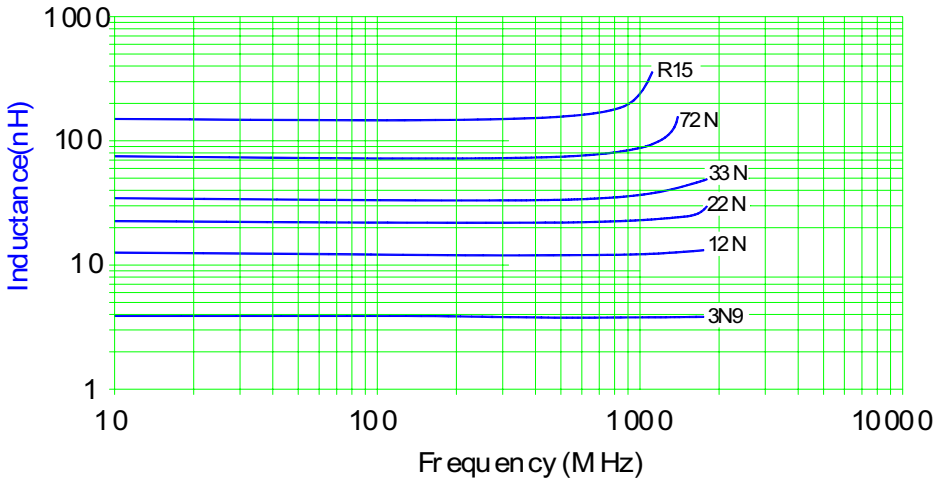
MINIATURE SMD CHIP INDUCTORS

SMDCH □ R 0603 TYPE

TYPICAL Q vs FREQUENCY



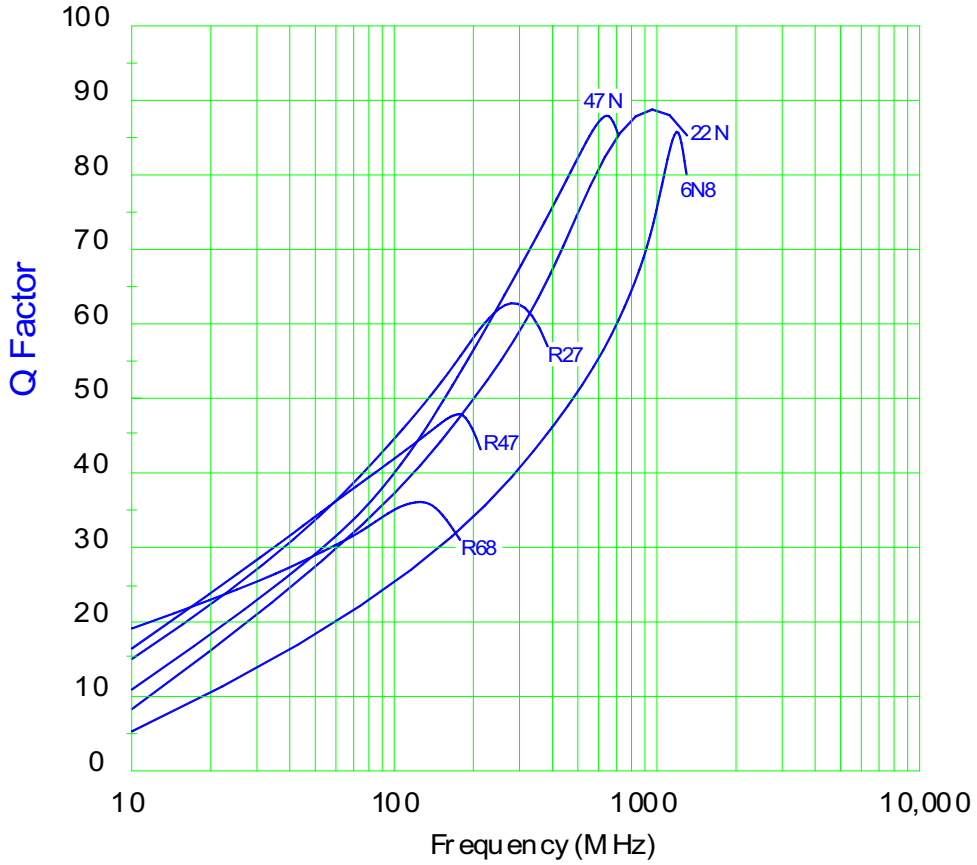
L vs FREQUENCY



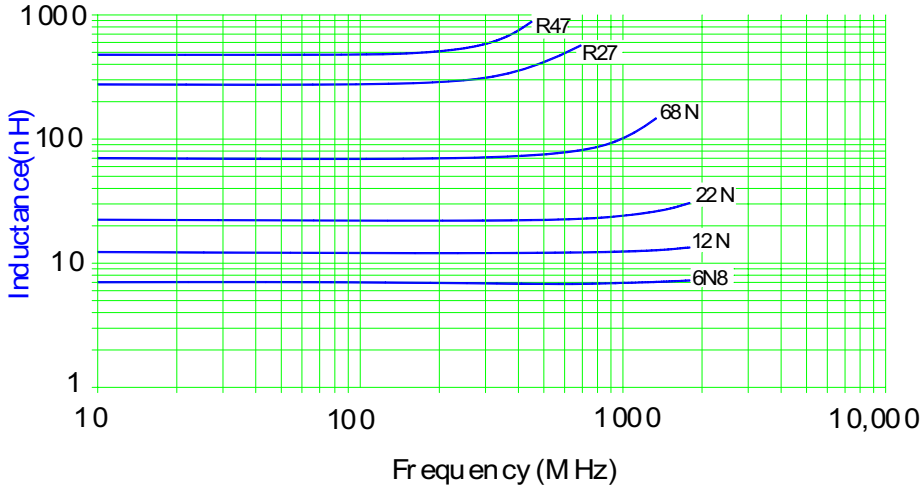
MINIATURE SMD CHIP INDUCTORS

SMDCH □ R 0805 TYPE

TYPICAL Q vs FREQUENCY



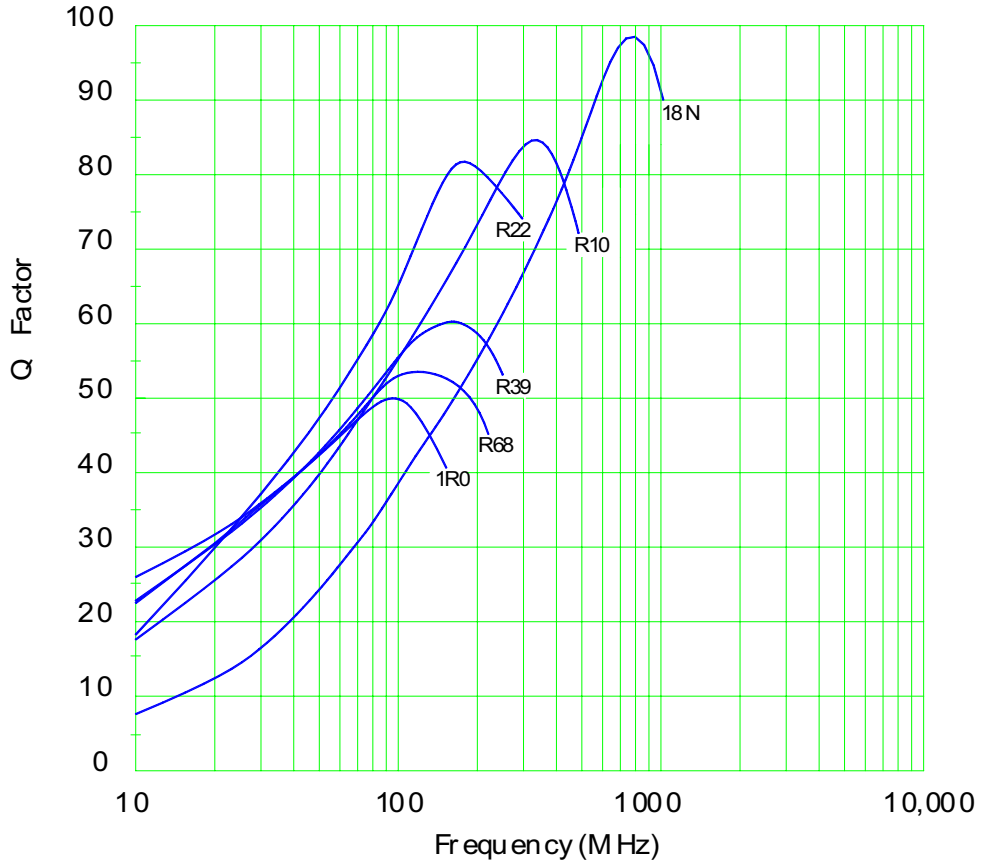
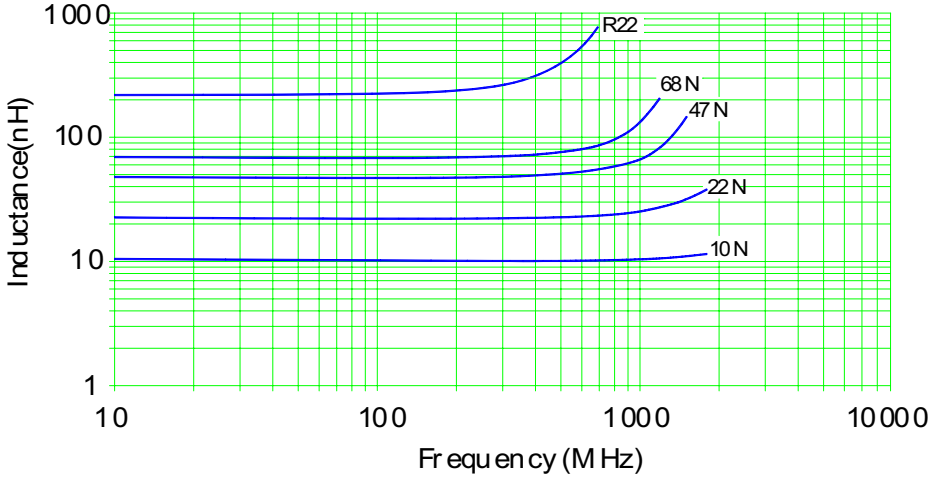
L vs FREQUENCY



MINIATURE SMD CHIP INDUCTORS

SMDCH □ R 1008 TYPE

TYPICAL Q vs FREQUENCY



L vs FREQUENCY