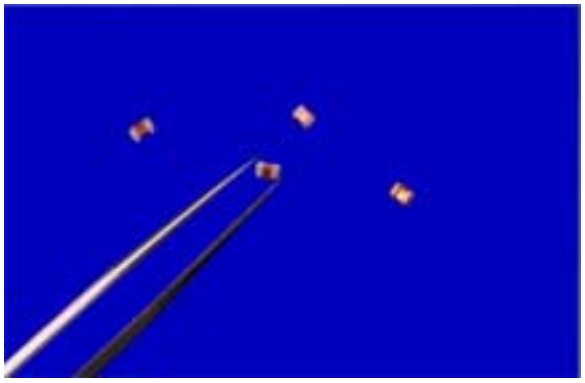
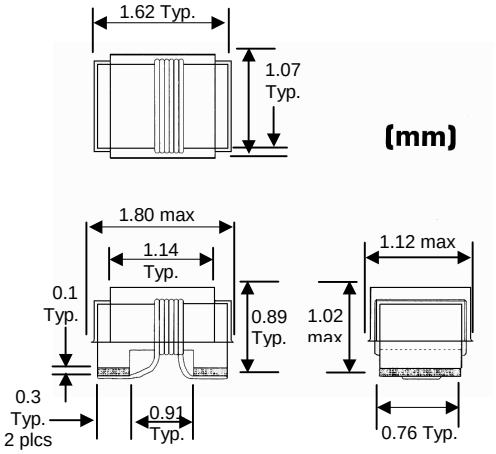
0603G Series
Choke Coils

0603 Surface Mount





Specifications & Standard Values

Part Number	L @ Freq. (nH Mhz)	Available Tolerances	Q @ Freq. (Min. Mhz)	SRF (MHz)	DCR (ohm)	I max. (mA)	Material
0603G1R4**E	**1.4**@250	K,M	**20**@250	>6000	.030	1000	Alumina
0603G1R5**E	**1.5**@250	K,M	**20**@250	>6000	.030	850	
0603G1R8**E	**1.8**@250	K,M	**16**@250	>6000	.040	850	
0603G2R0**E	**2.0**@250	K,M	**11**@250	>6000	.080	700	
0603G2R9**E	**3.9**@250	K,M	**22**@250	>6000	.070	800	
0603G4R7**E	**4.7**@250	K,M	**25**@250	>6000	.090	750	
0603G5R6**E	**5.6**@250	K,M	**14**@250	>5800	.024	750	
0603G6R8**E	**6.8**@250	K,M	**30**@250	5800	.100	850	
0603G7R5**E	**7.5**@250	K,M	**30**@250	5500	0.10	850	
0603G8R6**E	**8.6**@250	K,M	**30**@250	5500	.100	850	
0603G100**E	**10**@250	J,K	**31**@250	5000	.160	850	
0603G120**E	**12**@250	J,K	**35**@250	4000	.110	750	
0603G150**E	**15**@250	J,K	**35**@250	4000	.140	750	
0603G180**E	**18**@250	J,K	**35**@250	3100	.150	750	
0603G220**E	**22**@250	J,K	**38**@250	3000	.180	700	
0603G270**E	**27**@250	G,J	**40**@250	2900	.210	700	
0603G330**E	**33**@250	G,J	**40**@250	2300	.180	700	
0603G390**E	**39**@250	G,J	**40**@250	2200	.220	700	
0603G470**E	**47**@200	G,J	**38**@200	2100	.230	600	
0603G560**E	**56**@200	G,J	**40**@200	2000	.240	600	
0603G620**E	**62**@200	G,J	**37**@200	2000	.250	600	
0603G680**E	**68**@200	G,J	**37**@200	2000	.340	600	
0603G720**E	**72**@150	G,J	**34**@150	1900	.390	500	
0603G770**E	**77**@150	G,J	**34**@150	1900	.390	500	
0603G900**E	**90**@150	G,J	**34**@150	1800	.600	400	
0603G101**E	**100**@150	G,J	**34**@150	1800	.600	400	
0603G111**E	**110**@150	G,J	**32**@150	1500	.650	400	
0603G121**E	**120**@150	G,J	**32**@150	1450	.700	400	
0603G131**E	**130**@150	G,J	**32**@150	1400	.800	400	
0603G151**E	**150**@150	G,J	**32**@150	1380	1.10	380	
0603G181**E	**180**@150	G,J	**25**@150	1350	1.15	350	
0603G201**E	**200**@150	G,J	**25**@150	1200	1.20	350	
0603G221**E	**220**@100	G,J	**25**@150	700	1.40	310	
0603G271**E	**270**@25	G,J	**16**@25	600	1.4	300	
0603G331**E	**330**@25	G,J	**14**@25	300	1.5	280	
0603G391**E	**390**@25	G,J	**16**@25	240	1.5	270	
0603G471**E	**470**@25	G,J	**16**@25	230	2.25	220	
0603G561**E	**560**@25	J,K	**16**@25	150	2.5	200	
0603G681**E	**680**@25	K	**16**@25	140	3.0	140	

General Specifications

Chip Coils

Core Material: Rubalit 708 (Alumina 96% AL(2) O(3))
Material Preparation: The ceramic is pressed and fired at 1600 degrees Celsius in air.
METALLIZATION PROCEDURE: The base metallization is tungsten, applied through a screen printing process. The tungsten is fired at 1500 degrees Celsius in an inert atmosphere. Next, electrolytic nickel layer is a minimum 2um thick (5um typical). This nickel is then sintered at 850 degrees Celsius. Over the nickel an electrolytic gold flash .1um is applied.
COPPER WIRE DESCRIPTION: The wire is high temperature enameled copper wire. The wire bears the trade name Estersol at U.L. and is equivalent to the ANSI-TYPE NW 77L(NEMA). Typical tin bath temperature is approximately 470 degrees Celsius.

1 0 0 8 G 1 5 2 K T E

PACKAGE STYLE
1st two digits are significant
3rd digit denotes number of zeros to follow: 152-1500nh
(**G** = Gold Flash)
(**T** = Solder Coat)
(**F** = Ferrite)

INDUCTANCE (Nanohenrys)

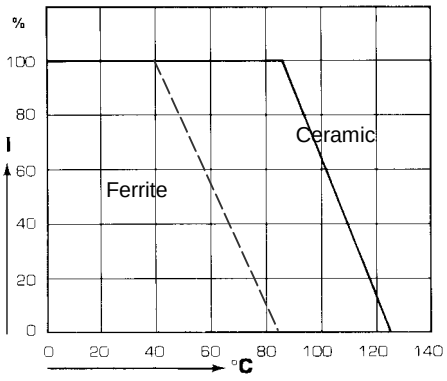
TOLERANCE
*(**G** = 2%, **J** = 5%, **K**, = 10%, **M** = 20%)

***PACKAGING**

COATING
Epoxy Encapsulation

EXAMPLE: 1008 size 1500nh 10% tape & reel

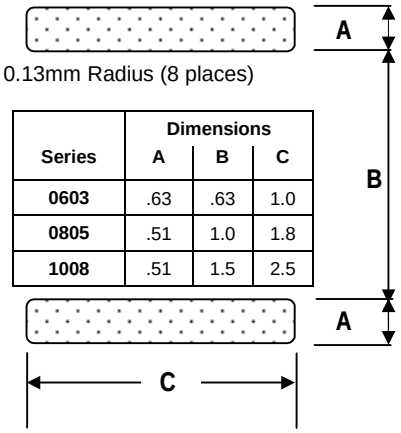
Current Carrying Capability
Dependant on the ambient temperature. These measurements were conducted with coils soldered on AL(2)O(3) substrates, size 10 x 10 mm.



Technical Data

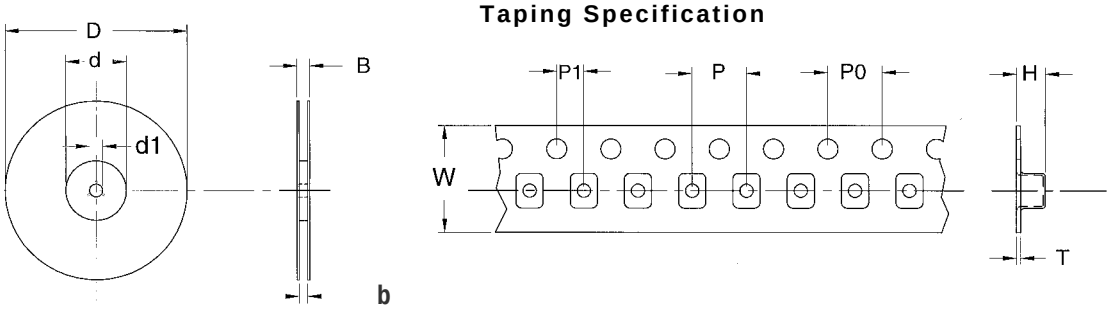
- Core material is Rubalit 708 (alumina) 96% AL(2) O(3)
- Alumina Core Inductors Operating Temperature -55°C to +125°C
- Wrap around terminations
- Terminations are tungsten-nickel with gold flash, 0.1um. Soldercoat optional
- Molded flat top
- 8mm Tape and reel
- Special values available
- **Ferrite 1008F:**
- Ferrite Core Inductors Operating Temperature -40°C to +85°C
- Wire terminations are spot welded to silver tin nickel metallization

Solder Pad Layout



Series	Dimensions A	B	C
0603	.63	.63	1.0
0805	.51	1.0	1.8
1008	.51	1.5	2.5

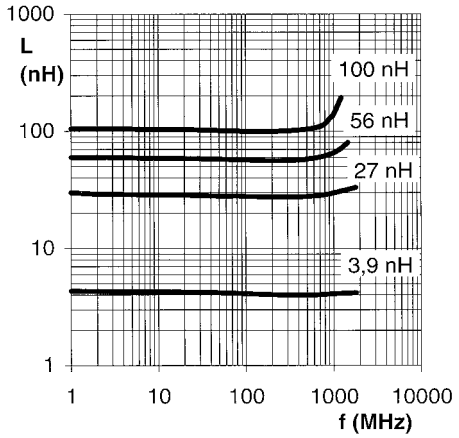
Taping Specification



Series	D	d	d1	B	b	W	P	P0	P1	H	T
0603	180	60	13	12.7	8.4	8	4	4	2	1.25	0.2
0805	180	60	13	12.7	8.4	8	4	4	2	1.63	0.2
1008	180	60	13	12.7	8.4	8	4	4	2	2.54	0.3

Typical Q vs. Frequency

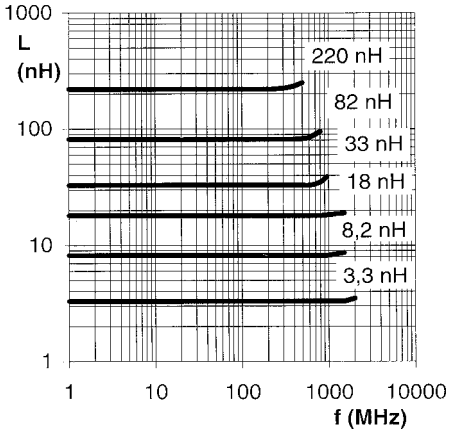
Chip Coils



Inductance dependant on frequency

0603G SERIES CHIP INDUCTORS

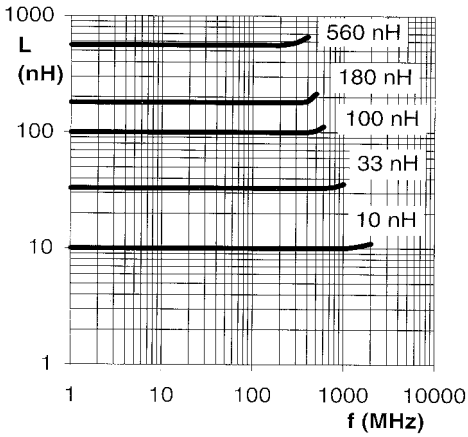
L Nh	50 Mhz	75 Mhz	100 Mhz	150 Mhz	200 Mhz	250 Mhz	500 Mhz	600 Mhz	700 Mhz	800 Mhz	900 Mhz	1000 Mhz	1200 Mhz	1400 Mhz	1600 Mhz	1800 Mhz
1.4	17	19	22	26	28	30	43	46	49	51	50	50	54	53	61	61
1.5	14	15	16	18	22	25	34	35	38	41	43	44	46	55	60	61
1.8	11	12	14	17	20	23	32	39	37	45	49	48	56	59	64	71
2.0	8	9	10	12	15	16	22	26	27	28	30	30	37	41	43	47
3.9	12	15	18	22	26	28	44	51	52	55	58	64	67	72	71	74
4.7	11	14	16	20	23	31	40	45	47	54	53	54	62	65	71	65
6.8	17	20	23	28	32	36	52	61	61	68	73	76	75	86	86	90
8.6	19	22	26	31	36	39	59	65	68	76	83	81	83	83	81	80
10	14	16	21	25	26	35	39	44	42	52	51	57	66	61	62	69
12	20	24	27	33	37	41	59	64	67	74	77	74	70	87	76	70
15	17	21	24	29	34	39	52	63	64	66	69	70	65	72	67	60
18	21	26	29	35	40	44	65	79	77	78	81	81	75	80	62	61
22	19	22	26	31	35	43	57	64	62	68	73	66	64	66	57	55
27	20	24	28	32	37	44	59	66	65	68	79	86	65	68	58	58
33	22	26	30	36	40	45	62	65	64	66	77	69	55	59	48	47
39	22	27	30	36	41	44	61	71	68	70	72	71	50	43	29	26
47	23	27	30	36	40	43	61	68	63	59	65	59	50	52	28	28
56	24	28	32	38	44	47	65	80	72	82	70	66	48	45	39	35
62	24	28	32	38	43	48	68	77	65	68	71	77	69	78	38	25
68	24	28	32	38	43	47	64	76	66	64	62	66	57	60	34	31
72	25	29	33	39	44	49	71	82	78	82	83	100	65	68	35	23
77	25	30	34	39	44	47	67	85	77	78	105	66	70	85	45	15
82	26	31	34	41	47	51	74	96	73	114	105	68	40	28	24	26
90	23	28	31	37	43	46	65	79	64	77	80	60	29	23	16	
110	24	29	32	38	44	46	65	85	62	76	73	56	35	28	13	
120	25	29	33	38	44	47	61	79	58	79	107	74	31	23		
130	25	30	33	39	45	46	61	79	56	65	72	48	21	17		
150	24	29	31	37	41	44	56	70	64	67	70	51	11			
180	24	28	32	38	42	45	63	81	48	54	53	34				
200	25	30	32	38	43	45	60	73	44	55	30					



Inductance dependant on frequency

0805G SERIES CHIP INDUCTORS

L Nh	50 Mhz	75 Mhz	100 Mhz	150 Mhz	200 Mhz	300 Mhz	500 Mhz	600 Mhz	700 Mhz	800 Mhz	900 Mhz	1000 Mhz	1200 Mhz	1400 Mhz	1600 Mhz	1800 Mhz
2.4	26	25	30	40	34	35	47	45	46	50	50	49	59	63	64	66
2.7	12	14	15	18	20	24	33	39	40	51	48	48	54	64	69	78
3.3	10	10	12	14	16	20	25	26	28	30	31	36	42	54	53	45
4.7	23	26	29	34	38	43	55	63	65	72	78	78	80	90	91	84
5.6	23	27	30	36	40	47	62	70	71	83	84	85	86	95	94	92
6.8	30	34	38	46	48	54	70	75	79	81	93	93	98	100	106	108
8.2	17	22	23	28	32	36	48	51	55	57	62	64	67	72	74	80
10	23	27	31	35	39	46	60	67	68	76	82	80	78	84	85	83
12	30	34	37	45	50	58	78	84	85	90	94	96	97	100	95	95
15	20	24	27	32	37	42	56	62	65	68	70	71	78	80	78	78
18	31	35	40	50	53	62	85	93	94	97	103	105	105	100	100	93
22	22	26	30	35	40	47	62	68	69	70	72	72	75	67	65	57
27	30	36	40	47	52	58	78	82	80	83	81	78	75	69	57	50
30	22	25	30	37	41	51	66	79	72	76	84	85	68	70	50	58
33	26	32	36	42	46	52	68	70	68	70	71	64	59	50	45	24
39	34	40	43	51	55	62	84	87	78	84	85	80	74	73	59	45
47	32	38	42	48	52	58	76	78	72	74	68	65	62	47	41	16
56	30	34	38	44	50	53	68	68	60	60	55	50	45	22	13	
68	33	38	42	50	55	62	82	84	68	77	73	65	62	52		
82	33	39	42	50	54	59	75	75	56	64	47	42	40	19		
100	30	34	38	44	49	53	68	67	43	48	40	35	18			
120	32	36	41	48	51	56	82	84	43	57	53	40	25			
150	32	37	40	46	53	54	80	80	40	44	46					
180	32	36	40	45	54	53	76	78	33	33	17					
220	31	35	39	43	56	58	65	70								
270	31	35	38	42	44	42	51	32								
330	33	38	40	44	48	48	60	35								
390	33	37	40	44	48	46	38	33								
470	34	38	42	45	47	38	33									
560	35	40	44	47	48	49										
680	34	39	43	46	48	42										



Inductance dependant on frequency

1008G SERIES CHIP INDUCTORS

L Nh	50 Mhz	75 Mhz	100 Mhz	150 Mhz	200 Mhz	300 Mhz	500 Mhz	600 Mhz	700 Mhz	800 Mhz	900 Mhz	1000 Mhz	1200 Mhz	1400 Mhz	1600 Mhz	1800 Mhz
4.7	17	20	23	27	30	35	46	53	56	62	63	66	69	76	76	78
8.2	33	39	43	50	54	64	79	89	88	100	103	105	99	106	105	95
10	36	39	44	55	57	63	82	100	110	95	98	111	119	119	115	114
12	33	38	40	52	58	62	83	105	105	96	99	106	110	96	100	70
15	19	24	28	36	39	45	57	68	67	65	67	64	66	60	62	46
18	49	54	58	72	78	86	112	140	135	130	130	130	120	103	107	98
22	38	45	47	56	62	70	95	104	97	94	99	72	94	53	41	25
27	35	41	46	55	61	69	91	97	93	91	95	86	85	54	49	23
33	37	45	58	65	75	81	105	110	95	110	100	78	85	45	35	14
39	44	52	57	67	71	79	103	125	85	99	97	92	97	40	36	
47	40	48	52	66	72	77	116	113	76	97	90	65	61	78	46	
56	46	53	57	68	76	81	94	97	62	57	54	77	31			
68	47	52	59	64	70	72	84	69	39	50	59	30				
82	43	48	55	60	69	68	89	90	50	55	66	36				
100	44	50	55	61	64	72	96	90	40	38	27	18				
120	47	51	57	65	64	70	76	42	25	22						
150	43	48	50	57	60	56	56	37	12							
180	46	52	57	63	64	61	55	30								
220	48	53	58	61	63	55	52	22								
270	45	52	55	58	60	50	45									
330	48	52	57	60	62	50	40									
390	43	48	52	52	50	40										
470	44	49	53	54	52	35										
560	45	49	52	53	51	36										
620	44	48	52	52	51	26										
680	44	48	51	51	52	24										
750	44	47	49	47	42	20										
820	46	50	52	50	43	17										
910	46	50	52	47	36	18										
1000	48	51	54	49	43	16										
1200	49	53	54	50	44	20										
1500	48	51	52	44	30											
1800	40	40	22													
L Nh	**7.9 Mhz**	**10 Mhz**	**25 Mhz**	**35 Mhz**	**50 Mhz**	**75 Mhz**	**100 Mhz**									
2200	28	27	28	36	34											
2700	29	27	18	16												
3300	29	27	15													
3900	29	27	13													
4700	29	28	12													