



0603C Series – SMD WIRE WOUND CERAMIC CHIP INDUCTORS

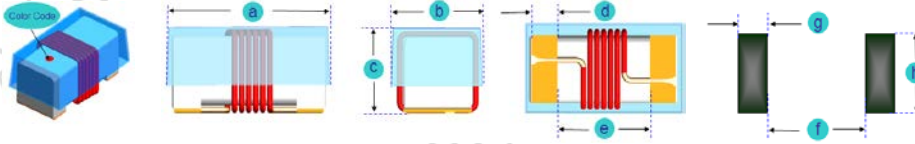
Rev. A

A. Electrical Specifications:

P/N	L (nH)	Tol.	Q min. Typ.	Test Freq. (MHz)	900(MHz)		1.7(GHz)		SRF Min. (GHz)	DCR Max. (Ω)	I rms. Max. (mA)	Color code
					L typ.	Q typ.	L typ.	Q typ.				
0603C-1N6_	1.6	K, J	24	250	1.67	49	1.65	63	12.50	0.030	700	Black
0603C-1N8_	1.8	K, J	16	250	1.83	35	1.86	50	12.50	0.045	700	Brown
0603C-2N1_	2.1	K, J	20	250	2.11	31	2.09	45	5.80	0.005	700	Red
0603C-2N2_	2.2	K, J	20	250	2.22	31	2.24	44	5.80	0.005	700	Orange
0603C-3N3_	3.3	K, J	20	250	3.31	75	3.38	88	5.50	0.070	700	Violet
0603C-3N6_	3.6	K, J	22	250	3.72	53	3.71	65	5.90	0.063	700	Red
0603C-3N9_	3.9	K, J	22	250	3.95	49	3.96	67	5.90	0.080	700	Orange
0603C-4N3_	4.3	K, J	22	250	4.32	50	4.33	70	5.90	0.063	700	Yellow
0603C-4N7_	4.7	K, J	20	250	4.72	47	4.75	57	5.80	0.116	700	Green
0603C-5N1_	5.1	K, J	20	250	4.93	47	4.95	56	5.70	0.140	700	Blue
0603C-5N6_	5.6	K, J	20	250	5.77	63	6.05	80	5.80	0.150	700	Gray
0603C-6N1_	6.1	K, J	25	250	5.90	59	7.08	79	5.80	0.110	700	White
0603C-6N8_	6.8	K, J, G	27	250	6.75	60	7.10	81	5.80	0.110	700	Violet
0603C-7N5_	7.5	K, J, G	28	250	7.70	60	7.82	85	4.80	0.106	700	Gray
0603C-8N2_	8.2	K, J, G	25	250	8.25	82	8.37	87	5.80	0.120	700	Black
0603C-8N4_	8.4	K, J, G	28	250	8.39	79	8.51	85	4.60	0.109	700	Red
0603C-8N5_	8.5	K, J, G	28	250	8.47	81	8.62	86	4.60	0.109	700	Red
0603C-8N7_	8.7	J, G	28	250	8.86	62	9.32	58	4.60	0.109	700	White
0603C-9N5_	9.5	J, G	28	250	9.70	59	9.92	61	5.40	0.135	700	Black
0603C-10N_	10	J, G	31	250	10.00	66	10.6	83	4.80	0.130	700	Brown
0603C-11N_	11	J, G	33	250	11.00	53	11.5	56	4.00	0.086	700	Red
0603C-12N_	12	J, G	35	250	12.30	72	13.5	83	4.00	0.130	700	Orange
0603C-14N_	14	J, G	35	250	14.20	69	15.6	85	4.00	0.170	700	Brown
0603C-15N_	15	J, G	35	250	15.40	64	16.8	89	4.00	0.170	700	Yellow
0603C-16N_	16	J, G	34	250	16.20	55	17.3	52	3.30	0.104	700	Green
0603C-18N_	18	J, G	35	250	18.70	70	21.4	69	3.10	0.170	700	Blue
0603C-22N_	22	J, G	38	250	22.80	73	26.1	71	3.00	0.190	700	Violet
0603C-23N_	23	J, G	38	250	24.10	71	28.0	67	2.85	0.190	700	Black
0603C-24N_	24	J, G	37	250	24.50	45	28.7	39	2.65	0.135	700	Gray
0603C-27N_	27	J, G	40	250	29.20	74	34.6	65	2.80	0.220	600	White
0603C-30N_	30	J, G	37	250	31.40	47	39.9	28	2.25	0.144	600	Black
0603C-33N_	33	J, G	40	250	36.00	67	49.5	42	2.30	0.220	600	Brown
0603C-36N_	36	J, G	38	250	39.40	47	52.7	24	2.08	0.250	600	Red
0603C-39N_	39	J, G	40	250	42.70	60	60.2	40	2.20	0.250	600	Orange
0603C-43N_	43	J, G	39	250	47.00	44	64.9	21	2.00	0.280	600	Yellow
0603C-47N_	47	J, G	38	200	52.20	62	77.2	35	2.00	0.280	600	Green
0603C-51N_	51	J, G	35	200	55.50	69	82.2	34	1.90	0.270	600	Brown
0603C-56N_	56	J, G	38	200	62.50	56	97.0	26	1.90	0.310	600	Blue
0603C-68N_	68	J, G	37	200	80.50	54	168	21	1.70	0.340	600	Violet
0603C-72N_	72	J, G	34	150	82.00	53	135	20	1.70	0.490	400	Gray
0603C-82N_	82	J, G	34	150	96.20	54	177	21	1.70	0.540	400	White
0603C-R10_	100	J, G	34	150	124	49	--	--	1.40	0.580	400	Black
0603C-R11_	110	J, G	32	150	138	43	--	--	1.35	0.610	300	Brown
0603C-R12_	120	J, G	32	150	166	39	--	--	1.30	0.650	300	Red
0603C-R15_	150	J, G	28	150	250	25	--	--	0.990	0.920	280	Orange
0603C-R18_	180	J, G	25	100	305	22	--	--	0.990	1.250	240	Yellow
0603C-R20_	200	J, G	25	100	--	--	--	--	0.990	1.980	200	Red
0603C-R21_	210	J, G	27	100	--	--	--	--	0.895	2.060	200	Orange
0603C-R22_	220	J, G	25	100	--	--	--	--	0.900	1.900	200	Green
0603C-R25_	250	J, G	25	100	--	--	--	--	0.822	3.550	120	Yellow
0603C-R27_	270	J, G	24	100	--	--	--	--	0.900	2.300	170	Blue
0603C-R33_	330	J, G	24	100	--	--	--	--	0.900	2.300	100	Violet
0603C-R39_	390	J, G	25	100	--	--	--	--	0.900	4.350	100	Gray

B. Dimensions: mm (Inch)

Series	a	b	c	d	e	f	g	h
0603C	1.70 (0.067)	1.02 (0.040)	0.92 (0.036)	0.33 (0.013)	0.86 (0.034)	0.64 (0.025)	0.64 (0.025)	1.02 (0.040)
Tol.	± 0.1 (0.004)	± 0.1 (0.004)	± 0.1 (0.004)	Typ.	Typ.	Typ.	Typ.	Typ.



C. General Information:

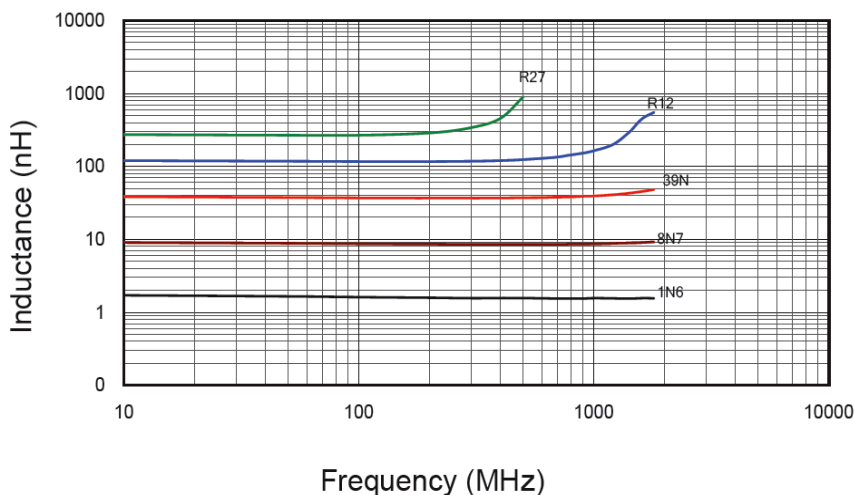
- 0603C-xxx_, “0603C” = Size Type, “C” = Gold plated pad, “xxx” = Inductance,
- Tolerance “_”: M: ±20%, K: ± 10%, J: ± 5%, G: ± 2%
- Product material: Ceramic.
- 0603C has first inductance color code only.
- Small and lightweight surface mounting type
- High Q at high frequency & High self-resonance frequency.
- Inductance & Q measured with HP4291B Impedance Analyzer.
- SRF measured using the HP8720D or HP8753E Network Analyzer.
- DCR measured using the 16502 milliohm meter.
- Operating temperature: -40°C to +125°C.
- For 15°C Temperature Rise at 25°C ambient
- Inductance and Current Range: From 1.6 nH (700mA) to 390 nH (100 mA)
- SRF: From 822 MHz to 12500 MHz
- MSL: Level 1.

D. Applications:

- Game Consoles
- Set Top Boxes
- Cables Modems
- Computers
- Mobile Communication Devices (Cell Phones, Radios, etc.)
- RF Filters

E. Characteristics Curve:

Inductance vs. Frequency





0603C Series – SMD WIRE WOUND CERAMIC CHIP INDUCTORS

Rev. A

Typical Q vs. Frequency

