



Chip Inductors – 0603CT(1608)

- Very low profile – only 60% of the height of our other 0603 inductor series
- Excellent Q, low DCR and very high SRF

Designer's Kit C423 contains 10 each of all 5% values and **Designer's Kit C423-2** contains 10 each of all 2% values.

Part number ¹	Inductance ² (nH)	Percent tolerance ³	900 MHz		1.7 GHz		SRF typ ⁵ (GHz)	DCR max ⁶ (Ohms)	Irms ⁷ (mA)
			L typ	Q typ ⁴	L typ	Q typ ⁴			
0603CT-1N0XJL_	1.0	5	0.98	39	0.99	58	16.0	0.045	1600
0603CT-1N2XJL_	1.2	5	1.18	35	1.19	50	16.0	0.105	1100
0603CT-2N0XJL_	2.0	5	1.98	46	1.98	70	12.0	0.034	1900
0603CT-2N3XJL_	2.3	5	2.27	55	2.28	81	11.0	0.046	1600
0603CT-2N5XJL_	2.5	5	2.48	52	2.50	77	11.0	0.060	1300
0603CT-3N0X_L_	3.0	5,2	2.96	57	2.97	82	10.7	0.039	1600
0603CT-3N3X_L_	3.3	5,2	3.27	60	3.33	83	7.00	0.039	1600
0603CT-3N6X_L_	3.6	5,2	3.58	69	3.63	95	7.00	0.044	1600
0603CT-3N9X_L_	3.9	5,2	3.87	68	3.95	90	6.30	0.050	1400
0603CT-4N3X_L_	4.3	5,2	4.26	58	4.34	84	6.30	0.076	1300
0603CT-4N7X_L_	4.7	5,2	4.66	50	4.75	70	5.60	0.120	960
0603CT-5N1X_L_	5.1	5,2	5.12	68	5.18	93	5.50	0.050	1400
0603CT-5N6X_L_	5.6	5,2	5.60	67	5.73	90	5.05	0.058	1300
0603CT-6N8X_L_	6.8	5,2	6.78	60	7.00	81	4.50	0.080	1200
0603CT-7N2X_L_	7.2	5,2	7.19	65	7.44	88	4.50	0.047	1500
0603CT-8N2X_L_	8.2	5,2	8.18	60	8.46	78	4.25	0.075	1300
0603CT-9N5X_L_	9.5	5,2	9.52	63	9.92	80	3.95	0.092	1100
0603CT-10NX_L_	10	5,2	10.0	67	10.4	85	3.95	0.075	1300
0603CT-11NX_L_	11	5,2	11.0	66	11.5	86	4.00	0.110	1000
0603CT-12NX_L_	12	5,2	12.0	68	12.7	85	3.50	0.130	920
0603CT-15NX_L_	15	5,2	15.2	65	16.1	80	3.30	0.145	800
0603CT-16NX_L_	16	5,2	16.3	63	17.5	76	3.10	0.175	760
0603CT-18NX_L_	18	5,2	18.1	66	19.2	80	2.95	0.200	720
0603CT-20NX_L_	20	5,2	20.2	67	21.6	80	2.90	0.175	760
0603CT-22NX_L_	22	5,2	22.4	60	24.3	70	2.75	0.220	700
0603CT-24NX_L_	24	5,2	24.4	61	26.5	72	2.70	0.240	680
0603CT-27NX_L_	27	5,2	27.4	62	29.8	75	2.55	0.270	670
0603CT-30NX_L_	30	5,2	30.5	62	33.9	73	2.45	0.330	600
0603CT-33NX_L_	33	5,2	34.0	55	39.1	61	2.20	0.330	600
0603CT-36NX_L_	36	5,2	37.2	61	42.3	63	2.30	0.335	600
0603CT-39NX_L_	39	5,2	40.3	60	45.3	65	2.25	0.400	570
0603CT-43NX_L_	43	5,2	44.5	57	51.3	60	2.10	0.440	530
0603CT-47NX_L_	47	5,2	48.2	55	57.8	57	1.90	0.540	470
0603CT-51NX_L_	51	5,2	53.0	55	63.2	55	1.85	0.570	440
0603CT-56NX_L_	56	5,2	59.4	54	75.4	48	1.75	0.700	420

1. When ordering, specify **tolerance, termination** and **packaging** codes:

0603CT-56NXGLW

Tolerance: G = 2% J = 5% (Table shows stock tolerances in bold.)

Termination: L = RoHS compliant silver-palladium-platinum-glass frit.

E = Halogen free component. RoHS compliant silver-palladium-platinum-glass frit terminations.
Special order: T = RoHS tin-silver-copper (95.5/4/0.5) or S = non-RoHS tin-lead (63/37).

Packaging: W = 7" machine-ready reel. EIA-481 punched paper tape (2000 parts per full reel).

U = Less than full reel. In tape, but not machine ready.
To have a leader and trailer added (\$25 charge), use code letter W instead.

2. Inductance measured at 250 MHz, 0.1 Vrms, 0 Adc using Coilcraft SMD-A fixture in Agilent/HP 4287A impedance analyzer.

3. Tolerances in bold are stocked for immediate shipment.

4. Q measured using Agilent/HP4291A with Agilent/HP 16193 test fixture.

5. SRF measured using Agilent/HP 8722ES network analyzer and Coilcraft SMD-D test fixture.

6. DCR measured on Cambridge Technology micro-ohmmeter and Coilcraft CCF858 test fixture.

7. Current that causes a 15°C temperature rise from 25°C ambient.

8. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com

UK +44-1236-730595 sales@coilcraft-europe.com

Taiwan +886-2-2264 3646 sales@coilcraft.com.tw

China +86-21-6218 8074 sales@coilcraft.com.cn

Singapore +65-6484 8412 sales@coilcraft.com.sg

Document 485-1 Revised 01/18/12

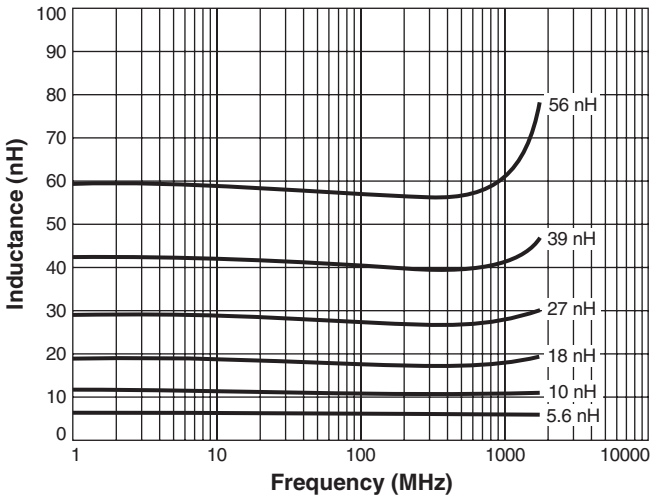
© Coilcraft Inc. 2012

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check out web site for latest information.

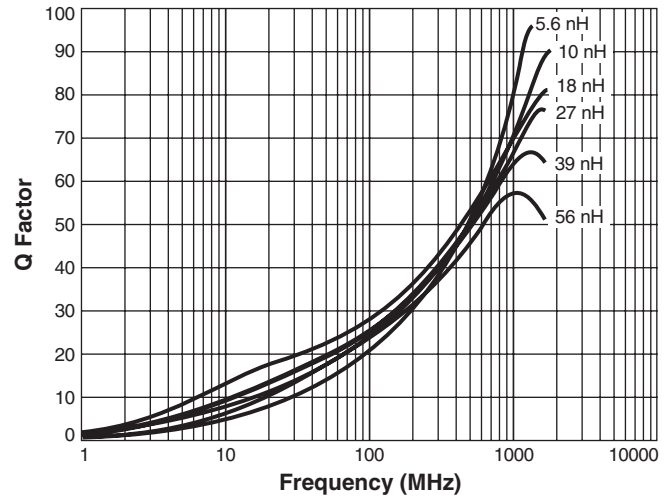


0603CT Series (1608)

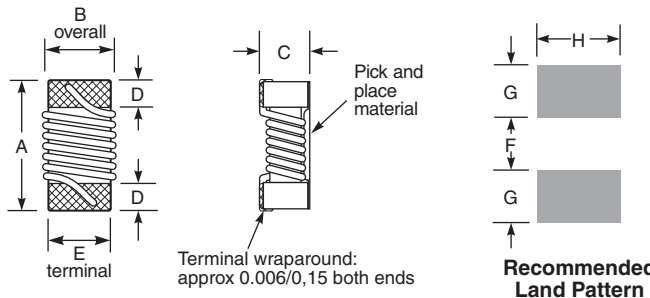
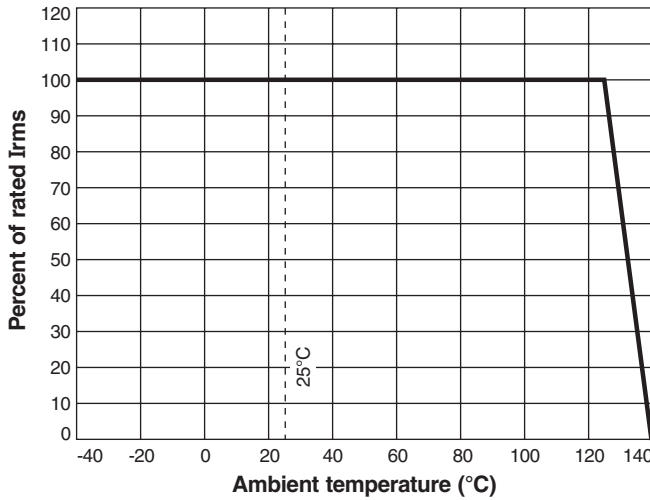
Typical L vs Frequency



Typical Q vs Frequency



Typical Irms Derating



Amax	Bmax	Cmax	D	E	F	G	H
0.064	0.033	0.024	0.013	0.030	0.025	0.025	0.040 inches
1,63	0,84	0,61	0,33	0,76	0,64	0,64	1,02 mm

Note: Height dimension (C) is before optional solder application. For maximum height dimension including solder, add 0.006 in / 0,152 mm.

Designer's Kit C423 contains 10 each of all 5% values;
Designer's Kit C423-2 contains 10 each of all 2% values

Core material Ceramic

Environmental RoHS compliant, halogen free optional

Terminations RoHS compliant silver-palladium-platinum-glass frit. Other terminations available at additional cost.

Weight 160 – 190 mg

Ambient temperature -40°C to +125°C with Irms current, +125°C to +140°C with derated current

Storage temperature Component: -40°C to +125°C.

Tape and reel packaging: -40°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Temperature Coefficient of Inductance (TCL) +25 to +125 ppm/°C

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Failures in Time (FIT) / Mean Time Between Failures (MTBF)

One per billion hours / one billion hours, calculated per Telcordia SR-332

Packaging 2000/7"reel; Paper tape: 8 mm wide, 0.68 mm thick, 4 mm pocket spacing

PCB washing Only pure water or alcohol recommended



US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 485-2 Revised 01/18/12
 © Coilcraft Inc. 2012
 This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check out web site for latest information.