

CHIP CERAMIC INDUCTORS

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Features

1. SMD type chip inductors utilizing monolithic structure provide highly reliable surface mount application.
2. Superior Q characteristics is guaranteed over wide frequency range for high frequency applications.
3. Excellent solder heat resistance for soldering.
4. Lead Free (RoHS Compliant)
5. Halogen Free (IPC4101B Compliant)

Applications

1. RF module of telecommunication products.
- cellular phone, cordless telephone etc.
2. GSM phone, PCS phone.
3. Computer communications, Radar detectors.
4. Keyless remote.

Ordering Information

$\frac{CI}{(1)}$ - $\frac{B}{(2)}$ $\frac{1608}{(3)}$ - $\frac{120}{(4)}$ $\frac{K}{(5)}$ $\frac{J}{(6)}$ $\frac{T}{(7)}$

(1) Series

(2) Material & Design

(3) Dimensions

First two digits : length(mm)
Last two digits : width(mm)

(4) Inductance

First two digits are Inductance values.
Last digit is the number of zeros.

(N : a decimal point placed between first two digits.)

(5) Tolerance

S : $\pm 0.3nH$

J : $\pm 5\%$

K : $\pm 10\%$.

(6) Termination

J : Nickel barrier

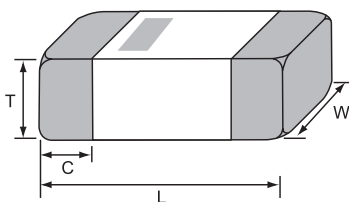
(7) Packaging

B : Bulk Package

T : Tape & Reel (\varnothing 178mm [7 inches])

L : Tape & Reel (\varnothing 254mm [10 inches])

Shape and Dimensions



unit : mm [inches]

Type	L	W	T	C
CI-□0603-	0.6 \pm 0.03 [.024 \pm .001]	0.3 \pm 0.03 [.012 \pm .001]	0.3 \pm 0.03 [.012 \pm .001]	0.15 \pm 0.05 [.006 \pm .002]
CI-□1005-	1.0 \pm 0.10 [.039 \pm .004]	0.5 \pm 0.10 [.020 \pm .004]	0.5 \pm 0.10 [.020 \pm .004]	0.20 \pm 0.10 [.008 \pm .004]
CI-□1608-	1.6 \pm 0.15 [.063 \pm .006]	0.8 \pm 0.15 [.031 \pm .006]	0.8 \pm 0.15 [.031 \pm .006]	0.30 \pm 0.20 [.012 \pm .008]
CI-□2012-	2.0 \pm 0.20 [.079 \pm .008]	1.25 \pm 0.20 [.049 \pm .008]	1.0 \pm 0.20 [.039 \pm .008]	0.50 \pm 0.30 [.020 \pm .012]

Specifications

CI1005

Part No.	Inductance (at 100MHz)		Q (min) 100MHz	Q (typ.)		SRF (MHz)		DCR (mΩ) max	Rated Current (mA) max.
	nH	Tolerance		800MHz	1.8GHz	min.	typ.		
CI-B1005-10N□□□	1.0	±0.3nH	8	39	65	6000	13000	100	300
CI-B1005-12N□□□	1.2		8	36	56	6000	10000	120	300
CI-B1005-15N□□□	1.5		8	35	55	6000	10000	120	300
CI-B1005-18N□□□	1.8		8	33	52	6000	9500	140	300
CI-B1005-22N□□□	2.2		8	31	50	6000	9000	160	300
CI-B1005-27N□□□	2.7		8	30	45	6000	9000	200	300
CI-B1005-33N□□□	3.3		8	30	44	6000	8000	220	300
CI-B1005-39N□□□	3.9		8	30	44	4000	6500	250	300
CI-B1005-47N□□□	4.7		8	29	42	4000	5000	280	300
CI-B1005-56N□□□	5.6		8	29	41	4000	5000	300	300
CI-B1005-68N□□□	6.8	± 5%	8	29	39	3900	4400	350	300
CI-B1005-82N□□□	8.2		8	29	38	3600	4000	400	250
CI-B1005-100□□□	10		8	28	35	3200	3500	450	250
CI-B1005-120□□□	12		8	28	32	2700	3500	500	200
CI-B1005-150□□□	15		8	27	28	2300	3000	550	200
CI-B1005-180□□□	18		8	26	22	2100	2600	650	200
CI-B1005-220□□□	22		8	25	16	1900	2200	800	200
CI-B1005-270□□□	27		8	25	-	1600	1900	900	200
CI-B1005-330□□□	33		8	23	-	1300	1700	1100	200
CI-B1005-390□□□	39		8	19	-	1200	1600	1200	100
CI-B1005-470□□□	47		8	18	-	1000	1300	1300	100
CI-B1005-560□□□	56		8	-	-	750	900	1400	100
CI-B1005-680□□□	68		8	-	-	700	800	1400	100
CI-B1005-820□□□	82		8	-	-	600	700	1600	100
CI-B1005-101□□□	100		8	-	-	350	650	2000	100
CI-B1005-121□□□	120		8	-	-	300	600	2200	100

• SRF : Self-Resonant Frequency. • DCR : DC Resistance

Test Equipment & Fixture (CI1005, CI1608, CI2012 Series)

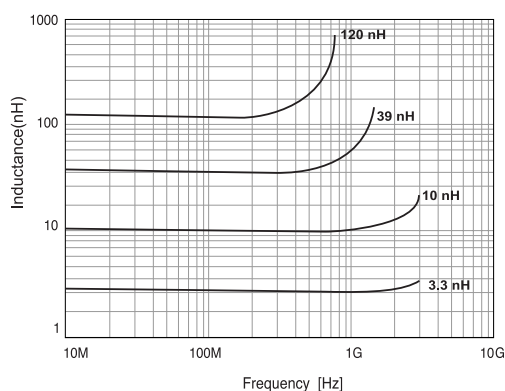
L, Q : RF Impedance Analyzer 4991A(Agilent), Test Fixture HP16193A

SRF : Network Analyzer 8722ES (Agilent),

Rdc : TWA-161A, B

Electrical Characteristics

Inductance characteristics



Q characteristics

