



● FEATURE

1. Support operating frequency bands up to 10GHz
2. Provides high Q characteristics
3. Monolithic structure for high reliability



● APPLICATION

1. Mobile phone
2. Cordless phone, pagers and Other various electronic appliances

● ORDERING INFORMATION

WCI100505

PN

-1N0

Inductance

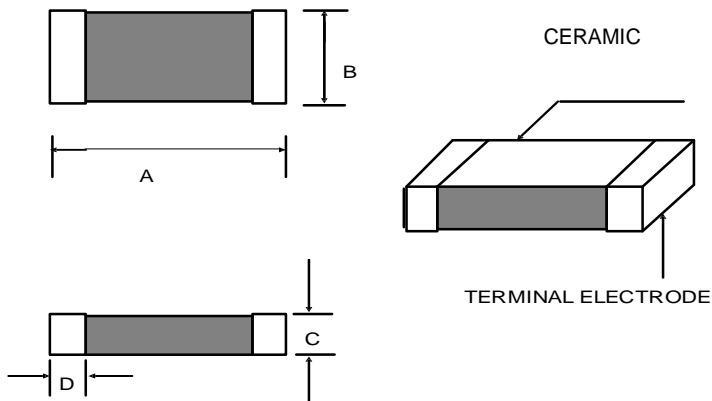
I

S :±0.3nH

J :±5%

K :±10%

● SHAPE AND DIMENSION



● SPECIFICATION

Dimension in mm(in inches)

TYPE	A	B	C	D
100505(0402)	1.0±0.15(0.039±0.006)	0.50±0.15(0.020±0.006)	0.5±0.15(0.020±0.006)	0.25±0.10
160808(0603)	1.6±0.15(0.063±0.006)	0.80±0.15(0.031±0.006)	0.8±0.15(0.031±0.006)	0.30±0.20

Note1: Test equipment: HP4291A Impedance analyzer

Note2: Inductance tolerance: S: ±0.3nH; J: ±5%; K: ±10%



● ELECTRICAL CHARACTERISTICS

PART NUMBER	Inductance (nH)	Q-value (Min)	Test Frequency (MHz)	Self-Resonant Frequency (GHz)Min	DC Resistance (mΩ) Max	Rated Current (mA) Max
WCI100505-1N0S	1.0	8	100	10	100	400
WCI100505-1N1S	1.1	8	100	10	100	400
WCI100505-1N2S	1.2	8	100	10	100	400
WCI100505-1N3S	1.3	8	100	10	100	400
WCI100505-1N5S	1.5	8	100	6	100	300
WCI100505-1N6S	1.6	8	100	6	100	300
WCI100505-1N8S	1.8	8	100	6	100	300
WCI100505-2N0S	2.0	8	100	6	200	300
WCI100505-2N2S	2.2	8	100	6	200	300
WCI100505-2N4S	2.4	8	100	6	200	300
WCI100505-2N7S	2.7	8	100	6	200	300
WCI100505-3N0S	3.0	8	100	6	200	300
WCI100505-3N3S	3.3	8	100	6	200	300
WCI100505-3N6S	3.6	8	100	4	200	300
WCI100505-3N9S	3.9	8	100	4	200	300
WCI100505-4N3S	4.3	8	100	4	200	300
WCI100505-4N7S	4.7	8	100	4	200	300
WCI100505-5N1S	5.1	8	100	4	300	300
WCI100505-5N6S	5.6	8	100	4	300	300
WCI100505-6N2S	6.2	8	100	3.90	300	300
WCI100505-6N8T	6.8	8	100	3.90	300	300
WCI100505-7N5T	7.5	8	100	3.70	400	300
WCI100505-8N2T	8.2	8	100	3.60	400	300
WCI100505-9N1T	9.1	8	100	3.40	400	300
WCI100505-10NT	10	8	100	3.20	400	300
WCI100505-12NT	12	8	100	2.70	500	300
WCI100505-15NT	15	8	100	2.30	500	300
WCI100505-18NT	18	8	100	2.10	600	300
WCI100505-20NT	20	8	100	2.00	600	300
WCI100505-22NT	22	8	100	1.90	600	300
WCI100505-27NT	27	8	100	1.60	700	300
WCI100505-33NT	33	8	100	1.30	800	200
WCI100505-39NT	39	8	100	1.20	1000	200
WCI100505-43NT	43	8	100	1.10	1100	200
WCI100505-47NT	47	8	100	1.00	1100	200



<b>PART NUMBER</b>	<b>Inductance (nH)</b>	<b>Q-value (Min)</b>	<b>Test Frequency (MHz)</b>	<b>Self-Resonant Frequency (GHz)Min</b>	<b>DC Resistance (mΩ) Max</b>	<b>Rated Current (mA) Max</b>
WCI100505-56NT	56	8	100	0.75	1200	200
WCI100505-68NT	68	8	100	0.75	1400	180
WCI100505-82NT	82	8	100	0.75	2400	150
WCI100505-R10T	100	8	100	0.70	2600	150
WCI100505-R12T	120	8	100	0.60	2800	150
WCI100505-R15T	150	8	100	0.55	3200	100
WCI100505-R18T	180	8	100	0.50	3700	100
WCI100505-R22T	220	8	100	0.45	4000	100
WCI100505-R27T	270	8	100	0.40	4500	100
WCI100505-R33T	330	6	50	0.35	7000	50

Operating temperature range: -55~+125°C

<b>PART NUMBER</b>	<b>Inductance (nH)</b>	<b>Q-value (Min)</b>	<b>Test Frequency (MHz)</b>	<b>Self-Resonant Frequency (GHz)Min</b>	<b>DC Resistance (mΩ) Max</b>	<b>Rated Current (mA) Max</b>
WCI160808-1N0S	1.0	8	100	10	50	500
WCI160808-1N2S	1.2	8	100	10	50	500
WCI160808-1N5S	1.5	8	100	6	100	500
WCI160808-1N8S	1.8	8	100	6	100	500
WCI160808-2N2S	2.2	8	100	6	100	500
WCI160808-2N7S	2.7	10	100	6	120	500
WCI160808-3N3S	3.3	10	100	6	150	500
WCI160808-3N9S	3.9	10	100	6	160	500
WCI160808-4N7S	4.7	10	100	6	200	500
WCI160808-5N6S	5.6	10	100	5	250	500
WCI160808-6N8T	6.8	10	100	5	300	500
WCI160808-8N2T	8.2	10	100	4.50	350	500
WCI160808-10NT	10	12	100	3.50	400	300
WCI160808-12NT	12	12	100	3.00	450	300
WCI160808-15NT	15	12	100	2.30	500	300
WCI160808-18NT	18	12	100	2.20	550	300
WCI160808-22NT	22	12	100	2.00	600	300
WCI160808-27NT	27	12	100	1.70	650	300
WCI160808-33NT	33	12	100	1.50	700	300
WCI160808-39NT	39	12	100	1.40	700	300
WCI160808-47NT	47	12	100	1.20	700	300
WCI160808-56NT	56	12	100	1.10	750	300



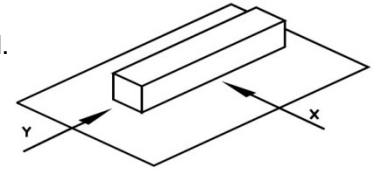
<b>PART NUMBER</b>	<b>Inductance (nH)</b>	<b>Q-value (Min)</b>	<b>Test Frequency (MHz)</b>	<b>Self-Resonant Frequency (GHz)Min</b>	<b>DC Resistance (mΩ) Max</b>	<b>Rated Current (mA) Max</b>
WCI160808-68NT	68	12	100	0.90	850	300
WCI160808-82NT	82	8	100	0.80	1000	300
WCI160808-R10T	100	8	100	0.70	1200	300
WCI160808-R12T	120	8	50	0.60	1400	200
WCI160808-R15T	150	8	50	0.50	1600	200
WCI160808-R18T	180	8	50	0.40	1900	200
WCI160808-R22T	220	8	50	0.35	2400	200
WCI160808-R27T	270	8	50	0.35	2600	150
WCI160808-R33T	330	8	50	0.35	2800	150
WCI160808-R39T	390	8	50	0.30	3200	150
WCI160808-R43T	430	8	50	0.28	3400	150
WCI160808-R47T	470	8	50	0.25	3600	150
WCI160808-R56T	560	8	50	0.25	4000	100
WCI160808-R68T	680	8	50	0.25	4500	100

Operating temperature range: -40~+85°C

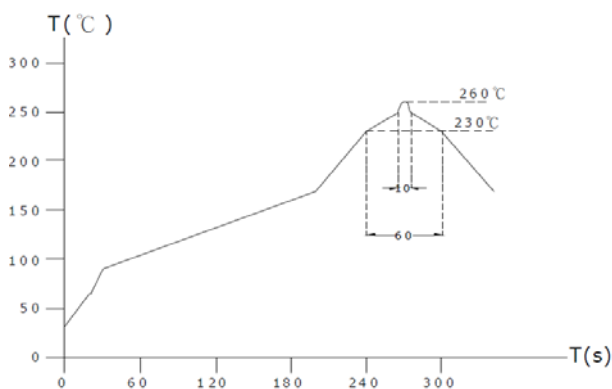


●GENERAL CHARACTERISTICS

1. Operating temperature range: -40 TO + 85°C (Includes temperature when the coil is heated)
2. External appearance: On visual inspection, the coil has external defects.
3. Terminal strength: After soldering. Between copper plate and terminals of coil.  
Push in two directions of X.Y withstanding at below conditions.  
Terminal should not peel off. (refer to figure at right)
4. Insulating resistance: Over 100MΩ at 100V D.C. between coil and core.
5. Dielectric strength: No dielectric breakdown at 100V D.C. for 1 minute between coil and core.
6. Temperature characteristics: Inductance coefficient  $(0\sim 2,000)\times 10^{-6}/^{\circ}\text{C}$  (-25~+80°C).
7. Humidity characteristics(Moisture Resistance): Inductance deviation within  $\pm 5\%$ , after 96 hours in 90~95% relative humidity at  $40 \pm 2^{\circ}\text{C}$  and 1 hour drying under normal condition.
8. Vibration resistance: Inductance deviation within  $\pm 5\%$ , after vibration for 1 hour. In each of three orientations at sweep vibration (10~55~10 Hz) with 1.5mm P-P amplitudes.
9. Shock resistance: Inductance deviation within  $\pm 5\%$ , after being dropped once with 981m/s<sup>2</sup> (100G) shock attitude upon a rubber block method shock testing machine, in three different orientations.
10. Resistance to Soldering Heat: 260°C, 10 seconds.
11. Storage environment  
Storage condition:  
Temperature Range: 10°C ~ 35°C (Generally: 21°C ~ 31°C)  
Humidity Range: 50% ~ 80% RH (Generally: 65% ~ 75%)  
Transportation condition:  
Temperature Range: -35°C ~ 85°C, Humidity Range: 50% ~ 95% RH
12. Use components within 6 months. If 6 months or more have elapsed, check soldarability before use.
13. Reflow profile recommend:



Lead – free heat endurance test



Lead-free the recommended reflow condition

