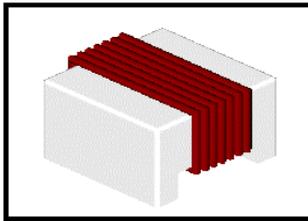




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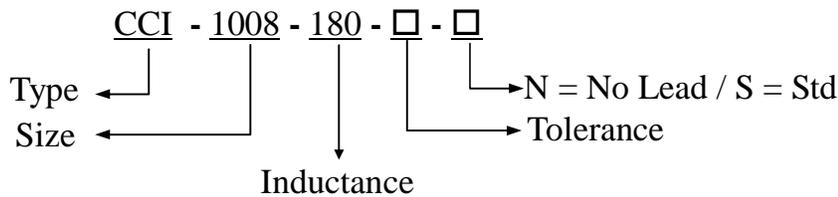
SMD Ceramic Chip Inductors, CCI Series



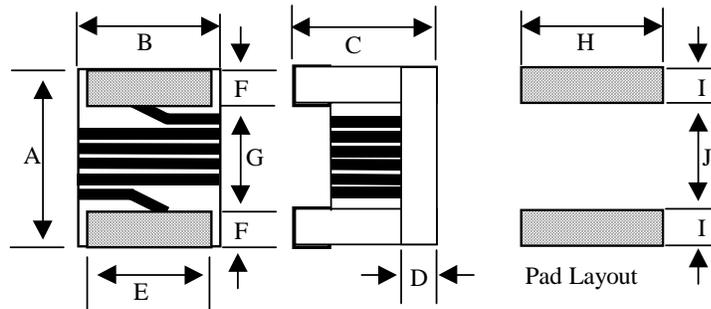
Feature:

This type of Miniature SMD Ceramic Chip Inductor is specially designed for the needs of today's high frequency related product. These products deliver very high SRF and also excellent Q factor. With the non-magnetic coil form it's assure utmost temperature stability, predictability and batch consistency.

Ordering Code:



Dimension in mm:



Type	A	B	C	D	E	F	G	H	I	J
CCI-0603	1.80	1.12	1.02	0.38	0.76	0.33	0.86	1.02	0.64	0.64
CCI-0805	2.41	1.78	1.78	0.51	1.27	0.51	1.02	1.78	0.96	0.86
CCI-1008	2.92	2.79	2.29	0.51	2.03	0.51	1.52	2.54	0.96	1.50
CCI-1206	3.70	2.80	2.20	0.90	2.18	0.51	2.30	2.70	1.00	2.00

Electrical:

Part Number	Inductance	Current
CCI-0603 - Series	1.6 nH to 270nH	700mA to 170mA
CCI-0805 - Series	2.8 nH to 820nH	800mA to 180mA
CCI-1008 - Series	10 nH to 10uH	1000mA to 100mA
CCI-1206 - Series	3.3nH to 1.0uH	1000mA to 300mA



Chilisin Electronics Singapore Pte Ltd

SMD Ceramic Chip Inductors, CCI Series



Electrical Characteristics:

Part Number	Inductance (nH)	Test Freq. MHz	Q min	SRF MHz min	RDC Ω Max	IDC mA max	900MHz		1.7GHz	
							L Typ.	Q Typ.	L Typ.	Q Typ.
CCI-0603-1N6-K	1.6 \pm 10%	250	24	12500	0.030	700	1.67	49	1.65	63
CCI-0603-1N8-K	1.8 \pm 10%	250	16	12500	0.043	700	1.63	35	1.66	150
CCI-0603-3N6-K	3.6 \pm 10%	250	22	5900	0.063	700	3.72	53	3.71	65
CCI-0603-3N9-K	3.9 \pm 10%	250	22	6900	0.080	700	3.95	49	3.96	67
CCI-0603-4N3-K	4.3 \pm 10%	250	22	5900	0.063	700	4.32	50	4.33	70
CCI-0603-4N7-K	4.7 \pm 10%	250	20	5800	0.116	700	4.72	47	4.75	57
CCI-0603-5N1-K	5.1 \pm 10%	250	20	5700	0.140	700	4.93	47	4.95	56
CCI-0603-6N3-K	6.3 \pm 10%	250	20	5700	0.140	700	5.5	47	6.1	60
CCI-0603-6N8-K	6.8 \pm 10%	250	27	5800	0.110	700	6.75	60	7.1	81
CCI-0603-7N5-K	7.5 \pm 10%	250	28	4800	0.106	700	7.70	60	7.82	65
CCI-0603-8N2-J	8.2 \pm 5%	250	28	4700	0.109	700	8.30	60	8.50	60
CCI-0603-8N7-J	8.7 \pm 5%	250	28	4600	0.109	700	8.86	62	9.32	58
CCI-0603-9N5-J	9.5 \pm 5%	250	28	5400	0.135	700	9.70	59	9.92	61
CCI-0603-10N-J	10.0 \pm 5%	250	31	4800	0.130	700	10	66	10.6	83
CCI-0603-11N-J	11.0 \pm 5%	250	33	4000	0.086	700	11	53	11.5	56
CCI-0603-12N-J	12.0 \pm 5%	250	35	4000	0.130	700	12.3	72	13.5	83
CCI-0603-15N-J	15.0 \pm 5%	250	35	4000	0.170	700	15.4	64	16.8	89
CCI-0603-16N-J	16.0 \pm 5%	250	34	3300	0.104	700	16.2	55	17.3	52
CCI-0603-18N-J	18.0 \pm 5%	250	35	3100	0.170	700	18.7	70	21.4	69
CCI-0603-22N-J	22.0 \pm 5%	250	38	3000	0.190	700	22.8	73	26.1	71
CCI-0603-24N-J	24.0 \pm 5%	250	37	2650	0.135	700	24.5	45	28.7	39
CCI-0603-27N-J	27.0 \pm 5%	250	40	2800	0.220	600	29.2	74	34.6	65
CCI-0603-30N-J	30.0 \pm 5%	250	37	2250	0.144	600	31.4	47	39.9	28
CCI-0603-33N-J	33.3 \pm 5%	250	40	2300	0.220	600	36	67	49.5	42
CCI-0603-36N-J	36.0 \pm 5%	250	38	2080	0.250	600	39.4	47	52.7	24
CCI-0603-39N-J	39.0 \pm 5%	250	40	2200	0.250	600	42.7	60	60.2	40
CCI-0603-43N-J	43.0 \pm 5%	250	39	2000	0.280	600	47	44	64.9	21
CCI-0603-47N-J	47.0 \pm 5%	200	38	2000	0.280	600	52.2	62	77.2	35
CCI-0603-56N-J	56.0 \pm 5%	200	38	1900	0.310	600	62.5	56	97	26
CCI-0603-68N-J	68.0 \pm 5%	200	37	1700	0.340	600	80.5	54	168	21
CCI-0603-72N-J	72.0 \pm 5%	150	34	1700	0.490	400	82	53	135	20
CCI-0603-82N-J	82.0 \pm 5%	150	34	1700	0.540	400	96.2	54	177	21
CCI-0603-R10-J	100.0 \pm 5%	150	34	1400	0.580	400	124	49	-	-
CCI-0603-R11-J	110.0 \pm 5%	150	32	1350	0.610	300	138	43	-	-
CCI-0603-R12-J	120.0 \pm 5%	150	32	1300	0.650	300	165	39	-	-
CCI-0603-R15-J	150.0 \pm 5%	150	28	990	0.920	280	250	25	-	-
CCI-0603-R18-J	180.0 \pm 5%	100	25	990	1.250	240	305	22	-	-
CCI-0603-R22-J	220.0 \pm 5%	100	25	900	1.900	200	480	8	-	-
CCI-0603-R27-J	270.0 \pm 5%	100	24	900	2.800	170	980	4	-	-

Tolerance: G = \pm 2% , J = \pm 5% , K = \pm 10%

IDC: measure at 15°C above 25°C

Operating Temperature range; -40°C to +125°C

19, Woodlands Industrial Park E1 #03-07 Singapore 757719

Tel : 65 - 68921191 Fax : 65 - 67606760



Chilisin Electronics Singapore Pte Ltd

SMD Ceramic Chip Inductors, CCI Series



Electrical Characteristics:

Part Number	Inductance (nH)	Test Freq. MHz	Q Min	Test Freq. MHz	SRF MHz min	RDC Ω Max	IDC mA Max
CCI-0805-2N8-K	2.8 \pm 10%	250	70	1500	7900	0.06	800
CCI-0805-3N0-K	3.0 \pm 10%	250	65	1500	7900	0.06	800
CCI-0805-3N3-K	3.3 \pm 10%	250	50	1500	7900	0.08	600
CCI-0805-6N8-K	6.8 \pm 10%	250	50	1000	5500	0.11	600
CCI-0805-7N5-K	7.5 \pm 10%	250	50	1000	4500	0.14	600
CCI-0805-8N2-K	8.2 \pm 10%	250	50	1000	4700	0.12	600
CCI-0805-10N-K	10.0 \pm 10%	250	60	500	4200	0.10	600
CCI-0805-12N-K	12.0 \pm 10%	250	50	500	4000	0.15	600
CCI-0805-15N-J	15.0 \pm 5%	250	50	500	3400	0.17	600
CCI-0805-18N-J	18.0 \pm 5%	250	50	500	3300	0.20	600
CCI-0805-22N-J	22.0 \pm 5%	250	55	500	2600	0.22	500
CCI-0805-24N-J	24.0 \pm 5%	250	55	500	2000	0.22	500
CCI-0805-27N-J	27.0 \pm 5%	250	55	500	2500	0.25	500
CCI-0805-33N-J	33.0 \pm 5%	250	60	500	2050	0.27	500
CCI-0805-36N-J	36.0 \pm 5%	250	60	500	1700	0.29	500
CCI-0805-39N-J	39.0 \pm 5%	250	60	500	2000	0.29	500
CCI-0805-43N-J	43.0 \pm 5%	200	60	500	1650	0.34	500
CCI-0805-47N-J	47.0 \pm 5%	200	60	500	1650	0.31	500
CCI-0805-56N-J	56.0 \pm 5%	200	60	500	1550	0.34	500
CCI-0805-68N-J	68.0 \pm 5%	200	60	500	1450	0.38	500
CCI-0805-82N-J	82.0 \pm 5%	150	65	500	1300	0.42	400
CCI-0805-91N-J	91.0 \pm 5%	150	65	500	1200	0.48	400
CCI-0805-R10-J	100.0 \pm 5%	150	65	500	1200	0.46	400
CCI-0805-R11-J	110.0 \pm 5%	150	50	250	1000	0.48	400
CCI-0805-R12-J	120.0 \pm 5%	150	50	250	1100	0.51	400
CCI-0805-R15-J	150.0 \pm 5%	100	50	250	920	0.56	400
CCI-0805-R18-J	180.0 \pm 5%	100	50	250	870	0.64	400
CCI-0805-R22-J	220.0 \pm 5%	100	50	250	850	0.70	400
CCI-0805-R24-J	240.0 \pm 5%	100	44	250	690	1.00	350
CCI-0805-R27-J	270.0 \pm 5%	100	48	250	650	1.00	350
CCI-0805-R33-J	330.0 \pm 5%	100	48	250	600	1.40	310
CCI-0805-R39-J	390.0 \pm 5%	100	48	250	560	1.50	290
CCI-0805-R47-J	470.0 \pm 5%	50	33	100	375	1.76	250
CCI-0805-R56-J	560.0 \pm 5%	50	25	50	340	1.90	230
CCI-0805-R68-J	680.0 \pm 5%	25	23	50	188	2.20	190
CCI-0805-R82-J	820.0 \pm 5%	25	23	50	215	2.35	180

Tolerance: G = \pm 2% , J = \pm 5% , K = \pm 10%

IDC: measure at 15°C above 25°C

Operating Temperature range; -40°C to +125°C

19, Woodlands Industrial Park E1 #03-07 Singapore 757719

Tel : 65 - 68921191 Fax : 65 - 67606760



Chilisin Electronics Singapore Pte Ltd

SMD Ceramic Chip Inductors, CCI Series



Electrical Characteristics:

Part Number	Inductance (nH)	Test Freq. MHz	Q Min	Test Freq. MHz	SRF MHz min	RDC Ω Max	IDC mA Max
CCI -1008-10N-□	10.0	50	50	500	4100	0.08	1000
CCI -1008-12N-□	12.0	50	50	500	3300	0.09	1000
CCI -1008-15N-□	15.0	50	50	500	2500	0.10	1000
CCI -1008-18N-□	18.0	50	50	350	2500	0.11	1000
CCI -1008-22N-□	22.0	50	55	350	2400	0.12	1000
CCI -1008-27N-□	27.0	50	55	350	1600	0.13	1000
CCI -1008-33N-□	33.0	50	60	350	1600	0.14	1000
CCI -1008-39N-□	39.0	50	60	350	1500	0.15	1000
CCI -1008-47N-□	47.0	50	65	350	1500	0.16	1000
CCI -1008-56N-□	56.0	50	65	350	1300	0.18	1000
CCI -1008-68N-□	68.0	50	65	350	1300	0.20	1000
CCI -1008-82N-□	82.0	50	60	350	1000	0.22	1000
CCI -1008-R10-□	100.0	25	60	350	1000	0.56	650
CCI -1008-R12-□	120.0	25	60	350	950	0.63	650
CCI -1008-R15-□	150.0	25	45	100	850	0.70	580
CCI -1008-R18-□	180.0	25	45	100	750	0.77	620
CCI -1008-R22-□	220.0	25	45	100	700	0.84	500
CCI -1008-R27-□	270.0	25	45	100	600	0.91	500
CCI -1008-R33-□	330.0	25	45	100	570	1.05	450
CCI -1008-R39-□	390.0	25	45	100	500	1.12	470
CCI -1008-R47-□	470.0	25	45	100	450	1.19	470
CCI -1008-R56-□	560.0	25	45	100	415	1.33	400
CCI -1008-R62-□	620.0	25	45	100	375	1.40	300
CCI -1008-R68-□	680.0	25	45	100	375	1.47	400
CCI -1008-R75-□	750.0	25	45	100	360	1.54	360
CCI -1008-R82-□	820.0	25	45	100	350	1.61	400
CCI -1008-R91-□	910.0	25	35	50	320	1.68	380
CCI -1008-1R0-□	1000.0	25	35	50	290	1.75	370
CCI -1008-1R2-□	1200.0	7.9	35	50	250	2.00	310
CCI -1008-1R5-□	1500.0	7.9	28	50	200	2.30	330
CCI -1008-1R8-□	1800.0	7.9	28	50	160	2.60	300
CCI -1008-2R2-□	2200.0	7.9	28	50	160	2.80	280
CCI -1008-2R7-□	2700.0	7.9	22	25	140	3.20	290
CCI -1008-3R3-□	3300.0	7.9	22	25	110	3.40	290
CCI -1008-3R9-□	3900.0	7.9	20	25	100	3.60	260
CCI -1008-4R7-□	4700.0	7.9	20	25	90	4.00	260
CCI -1008-5R6-□	5600.0	7.9	20	7.9	55	7.00	200
CCI -1008-6R8-□	6800.0	7.9	20	7.9	45	8.00	180
CCI -1008-8R2-□	8200.0	7.9	20	7.9	35	9.50	150
CCI -1008-100-□	10,000.0	7.9	20	7.9	25	12.0	100

Tolerance: G = $\pm 2\%$, J = $\pm 5\%$, K = $\pm 10\%$

IDC: measure at 15°C above 25°C

Operating Temperature range; -40°C to +125°C

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Tel : 65 - 68921191 Fax : 65 - 67606760



Chilisin Electronics Singapore Pte Ltd

SMD Ceramic Chip Inductors, CCI Series



Electrical Characteristics:

Part Number	Inductance (nH)	Test Freq. MHz	Q Min	Test Freq. MHz	SRF MHz min	RDC Ω Max	IDC mA Max
CCI -1206-3R3-□-□	3.3	100	30	300	6200	0.05	1000
CCI -1206-6N8-□-□	6.8	100	30	300	5500	0.07	1000
CCI-1206-10N-□-□	10.0	100	40	300	4000	0.08	1000
CCI-1206-12N-□-□	12.0	100	40	300	3200	0.08	1000
CCI -1206-15N-□-□	15.0	100	50	300	3200	0.10	1000
CCI -1206-18N-□-□	18.0	100	50	300	2800	0.10	1000
CCI -1206-22N-□-□	22.0	100	50	300	2200	0.10	1000
CCI -1206-27N-□-□	27.0	100	50	300	1800	0.11	1000
CCI -1206-33N-□-□	33.0	100	55	300	1800	0.11	1000
CCI -1206-39N-□-□	39.0	100	55	300	1800	0.12	1000
CCI -1206-47N-□-□	47.0	100	55	300	1500	0.13	1000
CCI -1206-56N-□-□	56.0	100	55	300	1450	0.14	1000
CCI -1206-68N-□-□	68.0	100	55	300	1200	0.26	900
CCI -1206-82N-□-□	82.0	100	55	300	1200	0.21	900
CCI -1206-R10-□-□	100.0	100	55	300	1100	0.26	850
CCI -1206-R12-□-□	120.0	100	60	300	1100	0.26	800
CCI -1206-R15-□-□	150.0	100	60	300	950	0.31	750
CCI -1206-R18-□-□	180.0	50	60	300	900	0.43	700
CCI -1206-R22-□-□	220.0	50	60	300	760	0.50	670
CCI -1206-R27-□-□	270.0	50	55	300	730	0.56	630
CCI -1206-R33-□-□	330.0	50	45	150	650	0.62	590
CCI -1206-R39-□-□	390.0	50	45	150	600	0.75	530
CCI -1206-R47-□-□	470.0	50	45	150	550	1.30	490
CCI -1206-R56-□-□	560.0	35	45	150	470	1.34	460
CCI -1206-R62-□-□	620.0	35	45	150	470	1.58	460
CCI -1206-R68-□-□	680.0	35	45	150	450	1.58	430
CCI -1206-R75-□-□	750.0	35	45	150	440	2.25	320
CCI -1206-R82-□-□	820.0	35	45	150	420	1.82	400
CCI -1206-R91-□-□	910.0	35	45	150	410	2.95	310
CCI -1206-1R0-□-□	1000.0	35	45	150	400	2.80	320
CCI -1206-1R2-□-□	1200.0	35	45	150	380	3.20	300

Tolerance: G = $\pm 2\%$, J = $\pm 5\%$, K = $\pm 10\%$

IDC: measure at 15°C above 25°C

Operating Temperature range; -40°C to +125°C

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SMD Ceramic Chip Inductors, CCI Series



Mechanical Performances:

No	Item	Specification	Test Condition
1.	Vibration Test (Low frequency)	1. Appearance – No damage 2. Inductance – within ± 10 of initial value 3. Q Changes – within ± 30 of initial value	1. Test Device should be Soldered on Substrate 2. Oscillation Freq – 10 to 55 to 10Hz for 1 min 3. Amplitude – 1.5mm 4. Time – 2 Hrs for each axis (X,Y,Z) Total 6 Hrs
2	Resistance to Soldering Heat	Appearance – No Damage	1. Pre-Heat - 150°C, 1 min 2. Solder – H63A (Eutectic Solder) 3. Soldering Temperature - 260°C \pm 5°C 4. Immersion Time – 10 \pm 1 sec
3	Solderability	Electrodes Shall be at least 90% covered with new solder	1. Pre-Heat - 150°C, 1 min 2. Solder – H63A (Eutectic Solder) 3. Soldering Temperature - 230°C \pm 5°C 4. Immersion Time – 4 \pm 1 sec
4	Terminal Strength (Push Test)	Components must withstand the minimum force of 5N(0.51kg F)	Device should be solder on Copper substrate. A force gauge is applied to the side of the component. Device must withstand a minimum force stated.

Environmental Performances:

No	Item	Specification	Test Condition															
1	Temperature Cycle	Appearance : No Damage Inductance : Δ Within +/- 10% of initial value Q factor : Δ Within +/- 30% of initial value.	One Cycle: <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature. (°C)</th> <th>Time(min)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-25 \pm 3</td> <td>30</td> </tr> <tr> <td>2</td> <td>25 \pm 2</td> <td>15</td> </tr> <tr> <td>3</td> <td>85 \pm 3</td> <td>30</td> </tr> <tr> <td>4</td> <td>25 \pm 3</td> <td>15</td> </tr> </tbody> </table> Total : 5 Cycles	Step	Temperature. (°C)	Time(min)	1	-25 \pm 3	30	2	25 \pm 2	15	3	85 \pm 3	30	4	25 \pm 3	15
Step	Temperature. (°C)		Time(min)															
1	-25 \pm 3		30															
2	25 \pm 2		15															
3	85 \pm 3		30															
4	25 \pm 3	15																
2.	Humidity Resistance	Temperature : 125°C \pm 3°C Relative Humidity : 90% ~ 95% Time : 100 Hrs Measured after exposure in room condition = 24hrs																
3	High Temperature Resistance	Temperature : 125°C \pm 3°C Time : 50 Hrs Measured after exposure in room condition = 24hrs																
4	Low Temperature Resistance	Temperature : -40°C \pm 3°C Time : 50 Hrs Measured after exposure in room condition = 24hrs																
5	High Temperature Load Life	Device should have no evidence of Open or short circuit	Temperature : 85°C \pm 3°C Loaded : Rated DC current Duration: 1000 Hrs															

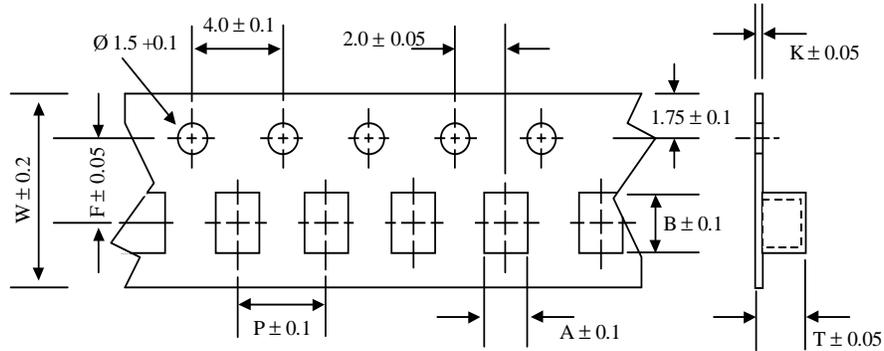


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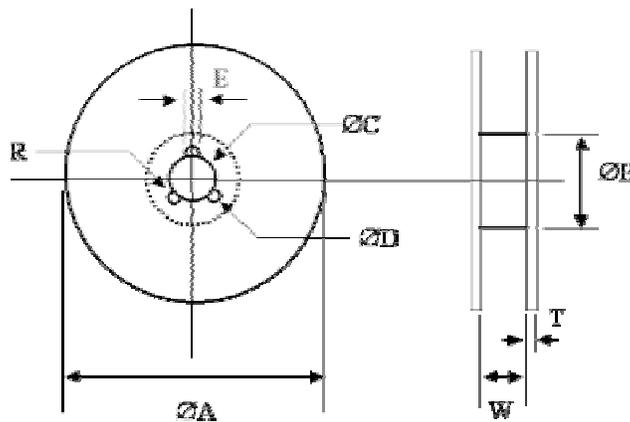
SMD Ceramic Chip Inductors, CCI Series



Packaging:



Type	A	B	K	W	P	F	T	Qty / Reel
CCI-0603	1.15	1.83	0.23	8.0	4.0	3.5	1.0	4000
CCI-0805	1.85	2.45	0.23	8.0	4.0	3.5	1.45	2500
CCI-1008	2.70	2.95	0.23	8.0	4.0	3.5	2.25	2000
CCI-1206	2.95	3.85	0.25	12.0	4.0	5.5	2.25	2,000



ØA	ØB	ØC	ØD	E	W	T	R
178 ±2	60 ±1	13.0 ±0.5	21.0 ±0.8	2.0 ±0.5	10.0 ±1.0	2.0 ±0.5	1.0