



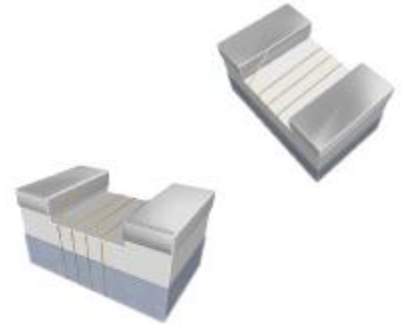
# Чип-индуктивность проволочная для печатного монтажа WIRE WOUND CHIP INDUCTORS

## FEATURES

- | High Self-Resonance Frequency
- | Stable inductance at high frequency
- | Tight inductance tolerance
- | High Q factor
- | High current
- | Low DCR

## MODEL

- | CCSP 0805 F
- | CCSP 0805 C
- | CCSP 0603 C
- | CCFH 0805 C
- | CCFH 0603 C
- | HCFT 0402 C



## APPLICATIONS

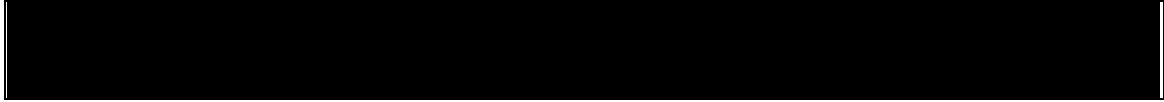
- | Antenna amplifiers
- | Mobile phone
- | Key entry
- | GPS (Global Positioning System)
- | Wireless LAN
- | PDA (Personal Digital Assistant)

## How to Specify Chip Inductor

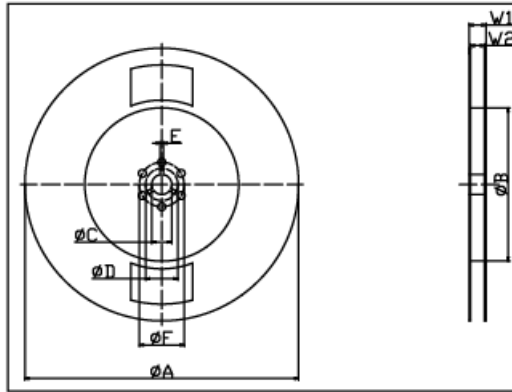
<b>C</b>	<b>C</b>	<b>S</b>	<b>P</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>3</b>	<b>C</b>	<b>2</b>	<b>N</b>	<b>7</b>	<b>J</b>
□	□	□	□	□	□	□	□	□	□	□	□	□
①	②	③	④	⑤			⑥	⑦		⑧		

- ① Bobbin type      C U shape  
                          H H shape
- ② Bobbin material C Ceramic Bobbin  
                          F Ferrite Bobbin
- ③ Electrode sort    S Tin-Lead  
                          F Pb Free
- ④ Wire sort         P General Wire  
                          S Soft Wire  
                          D UEW-D  
                          H HSEW  
                          T Special Wire
- ⑤ Bobin size        0402,0603,0805
- ⑥ CEC'S CODE (Controlled by CEC)
- ⑦ Inductance        e.g. 2N7  $\cong$  2.7nH  
                          R39  $\cong$  390nH
- ⑧ Inductance tolerance F      G      J      K      M      X      Y  
                                   $\pm 1\%$     $\pm 2\%$     $\pm 5\%$     $\pm 10\%$     $\pm 20\%$     $\pm 1.5\%$     $\pm 4.5\%$
- \* Special instance      CCSP 0805 F is Ferrite Bobbin.

※ Specifications other than the above will be furnished upon request.

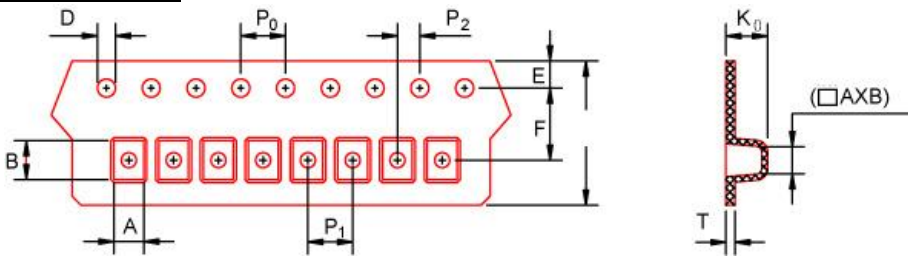


**REEL DIMENSIONS (mm)**



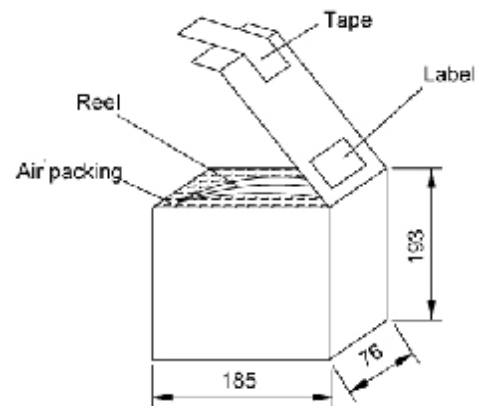
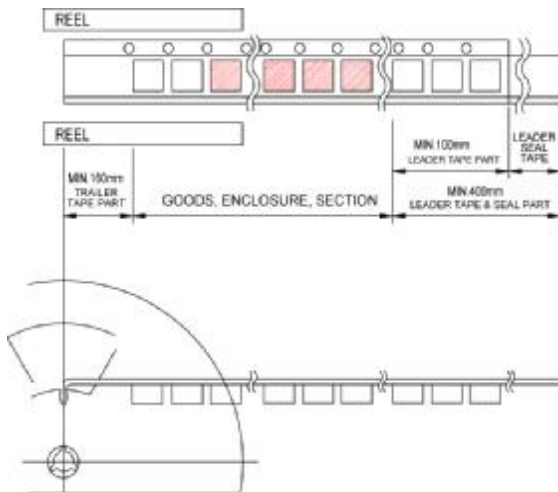
							<b>W<sub>2</sub></b>
0805	$\phi 180$ <sup>+0</sup> / <sub>-3</sub>	$\phi 60 \pm 2$	$\phi 13 \pm 0.5$	$\phi 21 \pm 0.8$	2.0 $\pm 0.5$	9 $\pm 0.5$	11.5 $\pm 0.8$
0603							$\phi 11.4 \pm 1.0$

**TAPING DIMENSIONS (mm)**

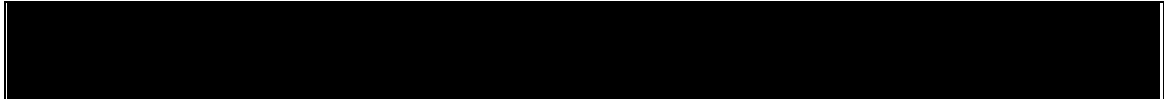


											<b>F<math>\pm 0.05</math></b>
0805	2.0 $\pm 0.2$	2.6 $\pm 0.1$	2.0 max.	0.3 max.	8.0 $\pm 0.3$	4.0	4.0 $\pm 0.1$	2.0 $\pm 0.5$	$\phi 1.5 \pm 0.1$	1.75	3.5
0603	1.2 $\pm 0.2$	2.0 $\pm 0.1$	1.2max.	0.242 max.	8.0 $\pm 0.3$	4.0	4.0 $\pm 0.1$	2.0 $\pm 0.5$	$\phi 1.5 \pm 0.1$	1.75	3.5
											3.5

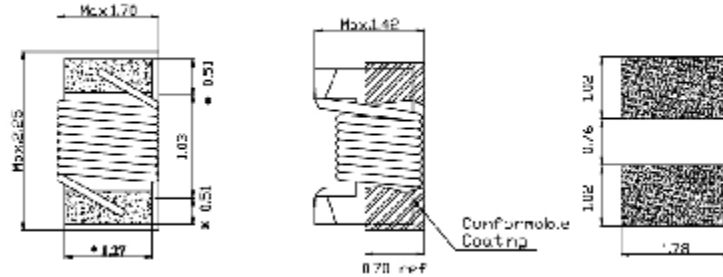
**PACKING DIMENSIONS (mm)**



QUANTITY : 3,000 pcs



**Construction & Dimensions: mm**



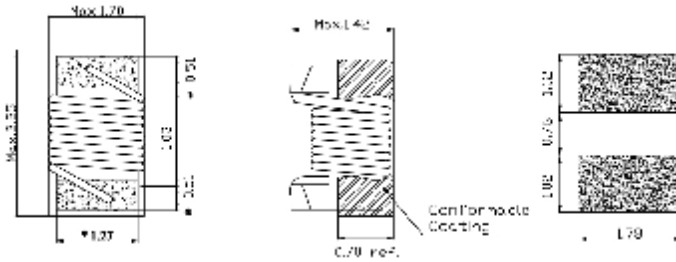
CCSP0805F SERIES ELECTRICAL CHARACTERISTIC (H500-0086)							
					(MHz)Min. Min.min.		IDC (mA) max.
CCSP 0805 F 1R0 □	1	J, K	7.96	15	387	0.46	434
CCSP 0805 F 1R2 □	1.2	J, K	7.96	15	269	0.51	425
CCSP 0805 F 1R5 □	1.5	J, K	7.96	15	228	0.56	390
CCSP 0805 F 1R8 □	1.8	J, K	7.96	15	238	0.76	338
CCSP 0805 F 2R2 □	2.2	J, K	7.96	15	189	0.84	313
CCSP 0805 F 2R7 □	2.7	J, K	7.96	15	156	1.09	284
CCSP 0805 F 3R3 □	3.3	J, K	7.96	15	151	1.24	262
CCSP 0805 F 3R9 □	3.9	J, K	7.96	15	133	1.32	250
CCSP 0805 F 4R7 □	4.7	J, K	7.96	15	107	1.46	238
CCSP 0805 F 5R0 □	5	J, K	7.96	15	101	1.64	230
CCSP 0805 F 5R6 □	5.6	J, K	7.96	15	111	2.05	217
CCSP 0805 F 6R8 □	6.8	J, K	7.96	15	87	2.21	212
CCSP 0805 F 8R2 □	8.2	J, K	7.96	15	79	2.47	204
CCSP 0805 F 10R □	10	J, K	2.52	9	83	3.53	168
CCSP 0805 F 12R □	12	J, K	2.52	9	61	4.1	156
CCSP 0805 F 15R □	15	J, K	2.52	9	52	4.62	150
CCSP 0805 F 18R □	18	J, K	2.52	9	15	4.6	148
CCSP 0805 F 22R □	22	J, K	2.52	8	15	5	143
CCSP 0805 F 27R □	27	J, K	2.52	8	15	5.6	130
CCSP 0805 F 33R □	33	J, K	2.52	8	15	6	112
CCSP 0805 F 39R □	39	J, K	2.52	7	15	8	108

Testing instrument and conditions :  
 DCR : HP 34420A or equivalent  
 S.R.F. : HP 8720ES or equivalent

Inductance & Q : HP 4287A & HP 16193A or equivalent  
 DCI : based on a 20°C maximum temperature rise.

\* Inductance tolerance : G = ±2%, J = ±5% , K = ±10%  
 ※Specifications other than the above will be furnished upon request.

**Construction & Dimensions: mm**



**Specification table of Wire Wound Chip Inductors CCSP 0805 C**

CEC P/N	Inductance		Q	Test Freq. (MHz)	S.R.F. (MHz) min.	DCR (Ω) max.	DCI (mA) max.	
	L (nH)	Tolerance *						
CCSP 0805 C 2N7 □	2.7	J, K	250	80	1500	7900	0.06	800
CCSP 0805 C 3N0 □	3.0	J, K		65	1500	7900	0.06	800
CCSP 0805 C 3N3 □	3.3	J, K	250	50	1500	7900	0.10	600
CCSP 0805 C 5N6 □	5.6	J, K		65	1000	5500	0.08	600
CCSP 0805 C 6N8 □	6.8	J, K		50	1000	5500	0.11	600
CCSP 0805 C 7N5 □	7.5	J, K		50	1000	4500	0.14	600
CCSP 0805 C 8N2 □	8.2	G, J, K		50	1000	4700	0.12	600
CCSP 0805 C 10N □	10.0	G, J, K		60	500	4200	0.10	600
CCSP 0805 C 12N □	12.0	G, J, K		50	500	4000	0.15	600
CCSP 0805 C 15N □	15.0	G, J, K		50	500	3400	0.17	600
CCSP 0805 C 18N □	18.0	G, J, K	250	50	500	3300	0.20	600
CCSP 0805 C 22N □	22.0	G, J, K		55	500	2600	0.22	500
CCSP 0805 C 24N □	24.0	G, J, K		50	500	2000	0.22	500
CCSP 0805 C 27N □	27.0	G, J, K		55	500	2500	0.25	500
CCSP 0805 C 33N □	33.0	G, J, K		60	500	2050	0.27	500
CCSP 0805 C 36N □	36.0	G, J, K		55	500	1700	0.27	500
CCSP 0805 C 39N □	39.0	G, J, K		60	500	2000	0.29	500
CCSP 0805 C 43N □	43.0	G, J, K		60	500	1650	0.34	500
CCSP 0805 C 47N □	47.0	G, J, K		60	500	1650	0.31	500
CCSP 0805 C 56N □	56.0	G, J, K		60	500	1550	0.34	500
CCSP 0805 C 68N □	68.0	G, J, K		60	500	1450	0.38	500
CCSP 0805 C 82N □	82.0	G, J, K		65	500	1300	0.42	400
CCSP 0805 C 91N □	91.0	G, J, K		65	500	1200	0.48	400
CCSP 0805 C R10 □	100.0	G, J, K		65	500	1200	0.46	400
CCSP 0805 C R11 □	110.0	G, J, K		50	250	1000	0.48	400
CCSP 0805 C R12 □	120.0	G, J, K		50	250	1100	0.51	400
CCSP 0805 C R15 □	150.0	G, J, K		50	250	920	0.56	400
CCSP 0805 C R18 □	180.0	G, J, K		50	250	870	0.64	400
CCSP 0805 C R22 □	220.0	G, J, K		50	250	850	0.70	400
CCSP 0805 C R24 □	240.0	G, J, K		44	250	690	1.0	350
CCSP 0805 C R27 □	270.0	G, J, K	100	48	250	650	1.0	350
CCSP 0805 C R33 □	330.0	G, J, K		48	250	600	1.4	310
CCSP 0805 C R39 □	390.0	G, J, K	100	48	250	560	1.5	290
CCSP 0805 C R47 □	470.0	J, K		33	100	375	1.76	250
CCSP 0805 C R56 □	560.0	J, K	25	23	50	340	1.90	230
CCSP 0805 C R68 □	680.0	J, K		23	50	188	2.20	190
CCSP 0805 C R82 □	820.0	J, K	25	23	50	215	2.35	180
CCSP 0805 C 1R0 □	1000.0	J, K		23	50	282	6.90	92

Testing instrument and conditions :

DCR : HP 34420A or equivalent  
S.R.F. : HP 8720ES or equivalent

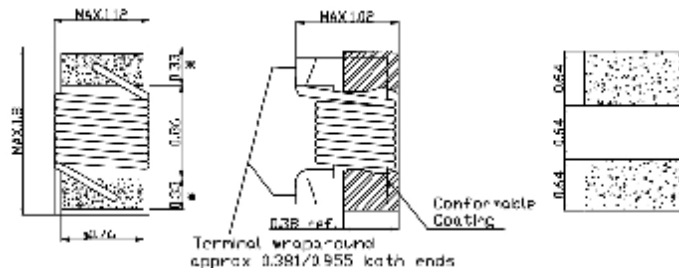
Inductance & Q : HP 4287A & HP 16193A or equivalent  
DCI : based on a 20°C maximum temperature rise.

\* Inductance tolerance : G = ±2%, J = ±5% , K = ±10%

※Specifications other than the above will be furnished upon request.



**Construction & Dimensions: mm**



**CCSP 0603 C SERIES ELECTRICAL CHARACTERISTIC (H5000001)**

	L(nH)	Tolerance	min.	Test Freq. (MHz)	S.R.F. (MHz)	DCR (Ω)		IDC (mA)	
						min.	max.	min.	max.
CCSP 0603 C 1N6 □	1.6	J, K	24	250	12500	0.030	700		
CCSP 0603 C 1N8 □	1.8	J, K	16	250	12500	0.045	700		
CCSP 0603 C 3N3 □	3.3	J, K	25	250	10000	0.050	700		
CCSP 0603 C 3N6 □	3.6	J, K	22	250	5900	0.063	700		
CCSP 0603 C 3N9 □	3.9	J, K	22	250	6900	0.080	700		
CCSP 0603 C 4N3 □	4.3	J, K	22	250	5900	0.063	700		
CCSP 0603 C 4N7 □	4.7	J, K	20	250	5800	0.130	700		
CCSP 0603 C 5N1 □	5.1	J, K	20	250	5700	0.140	700		
CCSP 0603 C 5N6 □	5.6	G,J,K	25	250	6000	0.1	700		
CCSP 0603 C 6N8 □	6.8	G,J,K	27	250	5800	0.110	700		
CCSP 0603 C 7N5 □	7.5	G,J,K	28	250	4800	0.106	700		
CCSP 0603 C 8N2 □	8.2	G,J,K	28	250	4600	0.11	700		
CCSP 0603 C 8N7 □	8.7	G,J,K	28	250	4600	0.109	700		
CCSP 0603 C 9N5 □	9.5	G,J,K	28	250	5400	0.135	700		
CCSP 0603 C 10N □	10	G,J,K	31	250	4800	0.130	700		
CCSP 0603 C 11N □	11	G,J,K	33	250	4000	0.107	700		
CCSP 0603 C 12N □	12	G,J,K	35	250	4000	0.130	700		
CCSP 0603 C 15N □	15	G,J,K	35	250	4000	0.170	700		
CCSP 0603 C 16N □	16	G,J,K	34	250	3300	0.134	700		
CCSP 0603 C 18N □	18	G,J,K	35	250	3100	0.170	700		
CCSP 0603 C 22N □	22	G,J,K	38	250	3000	0.190	700		
CCSP 0603 C 24N □	24	G,J,K	37	250	2650	0.190	700		
CCSP 0603 C 27N □	27	G,J,K	40	250	2800	0.220	600		
CCSP 0603 C 30N □	30	G,J,K	37	250	2250	0.187	600		
CCSP 0603 C 33N □	33	G,J,K	38	250	2300	0.260	600		
CCSP 0603 C 36N □	36	G,J,K	38	250	2080	0.250	600		
CCSP 0603 C 39N □	39	G,J,K	40	250	2200	0.250	600		
CCSP 0603 C 43N □	43	G,J,K	39	250	2000	0.280	600		
CCSP 0603 C 47N □	47	G,J,K	38	200	2000	0.280	600		
CCSP 0603 C 56N □	56	G,J,K	38	200	1900	0.340	600		
CCSP 0603 C 68N □	68	G,J,K	37	200	1700	0.340	600		
CCSP 0603 C 72N □	72	G,J,K	34	150	1700	0.490	400		
CCSP 0603 C 82N □	82	G,J,K	34	150	1700	0.540	400		
CCSP 0603 C R10 □	100	G,J,K	34	150	1400	0.580	400		
CCSP 0603 C R11 □	110	G,J,K	32	150	1350	0.610	300		
CCSP 0603 C R12 □	120	G,J,K	32	150	1300	0.720	300		
CCSP 0603 C R15 □	150	G,J,K	28	150	990	0.920	280		
CCSP 0603 C R18 □	180	G,J,K	25	100	990	1.250	240		
CCSP 0603 C R22 □	220	G,J,K	25	100	900	2.100	200		
CCSP 0603 C R27 □	270	G,J,K	24	100	900	2.300	170		
CCSP 0603 C R33 □	330	G,J,K	25	100	900	3.630	170		
CCSP 0603 C R39 □	390	G,J,K	25	100	700	3.700	130		

\* Testing instrument and conditions

DCR : HP 34420A or equivalent

Inductance & Q : HP 4287A & HP16193A or equivalent

S.R.F. : HP 8720ES or equivalent

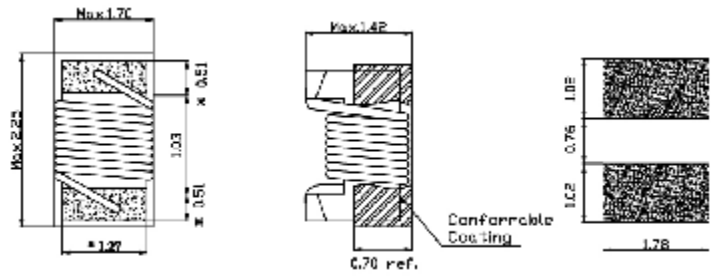
IDC : Based on a 20°C maximum temperature rise.

※ Inductance tolerance □: G = ±2 %, J = ±5 %, K = ±10 %

※ Specifications other than the above will be furnished upon request.



**Construction & Dimensions: mm**



	tance		Test Freq. (MHz)	Q Min.		S.R.F.		DCR (Ω) max.	IDC (mA) max.
						(MHz)	Min.		
CCFH 0805 C 2N7 □	2.7	J, K	250	80	1500	7900	0.06	800	
CCFH 0805 C 3N0 □	3	J, K	250	65		7900	0.06	800	
CCFH 0805 C 3N3 □	3.3	J, K	250	50	1500	7900	0.10	600	
CCFH 0805 C 5N6 □	5.6	J, K	250	65		5500	0.08	600	
CCFH 0805 C 6N8 □	6.8	J, K	250	50		5500	0.11	600	
CCFH 0805 C 7N5 □	7.5	J, K	250	50		4500	0.14	600	
CCFH 0805 C 8N2 □	8.2	G, J, K	250	50		4700	0.12	600	
CCFH 0805 C 10N □	10	G, J, K	250	60		4200	0.10	600	
CCFH 0805 C 12N □	12	G, J, K	250	50		4000	0.15	600	
CCFH 0805 C 15N □	15	G, J, K	250	50		3400	0.17	600	
CCFH 0805 C 18N □	18	G, J, K	250	50	500	3300	0.20	600	
CCFH 0805 C 22N □	22	G, J, K	250	55		2600	0.22	500	
CCFH 0805 C 24N □	24	G, J, K	250	50		2000	0.22	500	
CCFH 0805 C 27N □	27	G, J, K	250	55		2500	0.25	500	
CCFH 0805 C 33N □	33	G, J, K	250	60		2050	0.27	500	
CCFH 0805 C 36N □	36	G, J, K	250	55		1700	0.27	500	
CCFH 0805 C 39N □	39	G, J, K	250	60		2000	0.29	500	
CCFH 0805 C 43N □	43	G, J, K	250	60		1650	0.34	500	
CCFH 0805 C 47N □	47	G, J, K	200	60		1650	0.31	500	
CCFH 0805 C 56N □	56	G, J, K	200	60		1550	0.34	500	
CCFH 0805 C 68N □	68	G, J, K	200	60		1450	0.38	500	
CCFH 0805 C 82N □	82	G, J, K	150	65		1300	0.42	400	
CCFH 0805 C 91N □	91	G, J, K	150	65		1200	0.48	400	
CCFH 0805 C R10 □	100	G, J, K	150	65		1200	0.46	400	
CCFH 0805 C R11 □	110	G, J, K	150	50		1000	0.48	400	
CCFH 0805 C R12 □	120	G, J, K	150	50		1100	0.51	400	
CCFH 0805 C R15 □	150	G, J, K	100	50		920	0.56	400	
CCFH 0805 C R18 □	180	G, J, K	100	50		870	0.64	400	
CCFH 0805 C R22 □	220	G, J, K	100	50		850	0.70	400	
CCFH 0805 C R24 □	240	G, J, K	100	44		690	1.00	350	
CCFH 0805 C R27 □	270	G, J, K	100	48	250	650	1.00	350	
CCFH 0805 C R33 □	330	G, J, K	100	48		600	1.40	310	
CCFH 0805 C R39 □	390	G, J, K	100	48	250	560	1.50	290	
CCFH 0805 C R47 □	470	J, K	50	33		375	1.76	250	
CCFH 0805 C R56 □	560	J, K	25	23	50	340	1.90	230	
CCFH 0805 C R68 □	680	J, K	25	23		188	2.20	190	
CCFH 0805 C R82 □	820	J, K	25	23	50	215	2.35	180	
CCFH 0805 C 1R0 □	1000	J, K	25	23		282	6.90	92	

\* Testing instrument and conditions

DCR : HP 34420A or equivalent

Inductance & Q : HP 4287A & HP16193A or equivalent

S.R.F. : HP 8720ES or equivalent

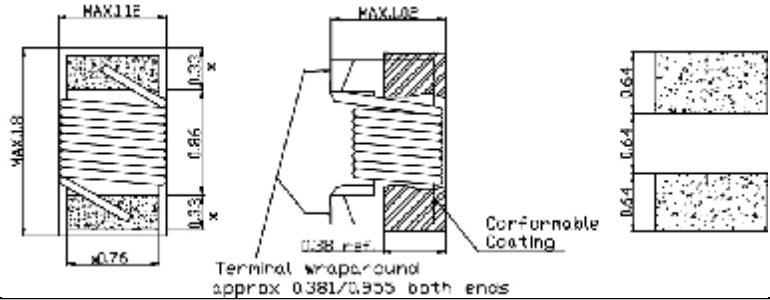
IDC : Based on a 20°C maximum temperature rise.

※ Inductance tolerance □: G = ±2 %, J = ±5 %, K = ±10 %

※ Specifications other than the above will be furnished upon request.



**Construction & Dimensions: mm**



**CCFH 0603 C SERIES ELECTRICAL CHARACTERISTIC <Pb-Free> (H5000202)**

	L(nH)	Tolerance	min.	Test Freq. (MHz)	S.R.F. (MHz) min.	DCR (Ω) max.	IDC (mA) max.
CCFH 0603 C 1N6 □	1.6	Y, J, K	24	250	12500	0.030	700
							700
CCFH 0603 C 3N3 □	3.3	Y, J, K	25	250	10000	0.050	700
							700
CCFH 0603 C 3N9 □	3.9	Y, J, K	22	250	6900	0.080	700
							700
CCFH 0603 C 4N7 □	4.7	Y, J, K	20	250	5800	0.130	700
							700
CCFH 0603 C 6N8 □	6.8	G,Y,J,K	27	250	5800	0.110	700
							700
CCFH 0603 C 8N7 □	8.7	G,Y,J,K	28	250	4600	0.109	700
							700
CCFH 0603 C 10N □	10	G,Y,J,K	31	250	4800	0.130	700
							700
CCFH 0603 C 12N □	12	G,Y,J,K	35	250	4000	0.130	700
							700
CCFH 0603 C 16N □	16	G,Y,J,K	34	250	3300	0.134	700
							700
CCFH 0603 C 22N □	22	G,Y,J,K	38	250	3000	0.190	700
							700
CCFH 0603 C 27N □	27	G,Y,J,K	40	250	2800	0.220	600
							600
CCFH 0603 C 33N □	33	G,Y,J,K	38	250	2300	0.260	600
							600
CCFH 0603 C 39N □	39	G,Y,J,K	40	250	2200	0.250	600
							600
CCFH 0603 C 47N □	47	G,Y,J,K	38	200	2000	0.280	600
							600
CCFH 0603 C 68N □	68	G,Y,J,K	37	200	1700	0.340	600
							400
CCFH 0603 C 82N □	82	G,Y,J,K	34	150	1700	0.540	400
							400
CCFH 0603 C R11 □	110	G,Y,J,K	32	150	1350	0.610	300
							300
CCFH 0603 C R15 □	150	G,Y,J,K	28	150	990	0.920	280
							240
CCFH 0603 C R22 □	220	G,Y,J,K	25	100	900	2.100	200
							170
CCFH 0603 C R33 □	330	G,Y,J,K H,G,Y,J,K	25	100	900	3.630	170
							130

\* Testing instrument and conditions

DCR : HP 34420A or equivalent

Inductance & Q : HP 4287A & HP16193A or equivalent

S.R.F. : HP 8720ES or equivalent

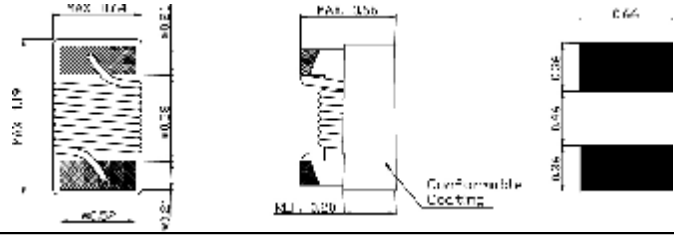
IDC : Based on a 20°C maximum temperature rise.

※ Inductance tolerance □: G = ±2 %, J = ±5 %, K = ±10 %

※ Specifications other than the above will be furnished upon request.



**Construction & Dimensions: mm**



**HCFT 0402 C SERIES ELECTRICAL CHARACTERISTIC (H5000204)**

	INDUCTANCE						IDC (mA) max.
HCFT 0402 C 1N0 □	1.0	J, K	16	250	12.70	0.045	1360
							1040
HCFT 0402 C 2N0 □	2.0	J, K	16	250	11.10	0.07	1040
							960
							790
							640
							840
							840
							840
							700
HCFT 0402 C 4N7 □	4.7	J, K	15	250	4.77	0.13	640
							800
							760
							760
							680
							680
							680
							480
							680
							480
							480
							480
							640
							640
							440
							560
							560
							420
							480
							420
							400
HCFT 0402 C 23N □	23.0	G, J, K	22	250	2.72	0.3	400
							400
HCFT 0402 C 27N □	27.0	G, J, K	24	250	2.48	0.3	400
							400
HCFT 0402 C 33N □	33.0	G, J, K	24	250	2.35	0.3	400
							320
HCFT 0402 C 39N □	39.0	G, J, K	25	250	2.10	0.55	200
							320
HCFT 0402 C 43N □	43.0	G, J, K	25	250	2.03	0.81	100
							150
HCFT 0402 C 51N □	51.0	G, J, K	25	250	1.75	0.82	100
							100
HCFT 0402 C 68N □	68.0	G, J, K	22	250	1.62	1.12	100

\* Testing instrument and conditions

DCR : HP 34420A or equivalent

S.R.F. : HP 8720ES or equivalent

Inductance & Q : HP 4287A & HP16193A or equivalent

IDC : Based on a 20°C maximum temperature rise.

※ Inductance tolerance □: G = ±2 %, J = ±5 %, K = ±10 %

※ Specifications other than the above will be furnished upon request.