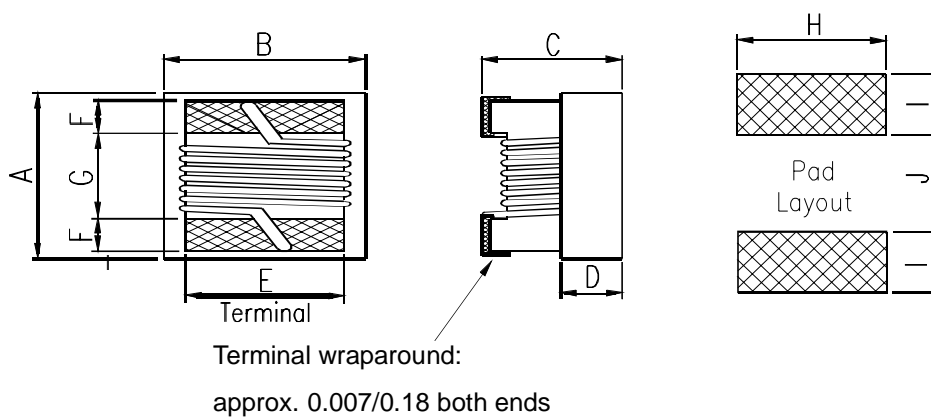


## Wire-Wound Chip Inductor 0402 (100505) Series

### Shape & Dimension



	A		B		C		D Ref.	E	F	G	H	I	J
	Max.	Ref	Max.	Ref	Max.	Ref							
inch	0.050	0.043	0.030	0.26	0.024	0.22	0.006	0.020	0.009	0.022	0.026	0.019	0.018
mm	1.27	1.1	0.76	0.65	0.61	0.56	0.15	0.51	0.23	0.56	0.66	0.50	0.46

Parts/Reel: 7" 4,000

Tape Width: 8mm

\* 零件外觀色點為生產線別標示，不代表感值特性，外觀色點以實際出貨為準 \*

## Wire-Wound Chip Inductor 0402 (100505) Series

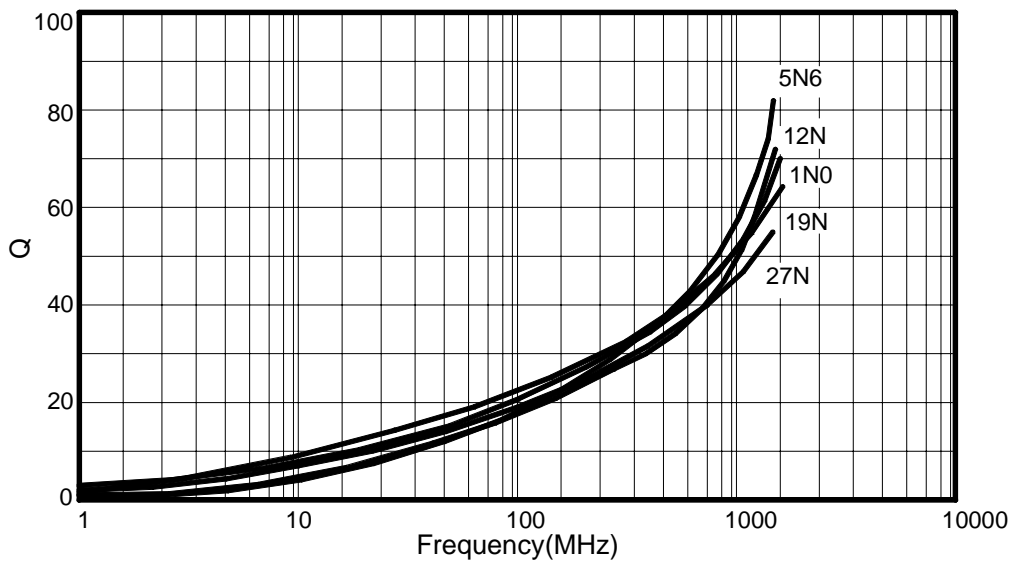
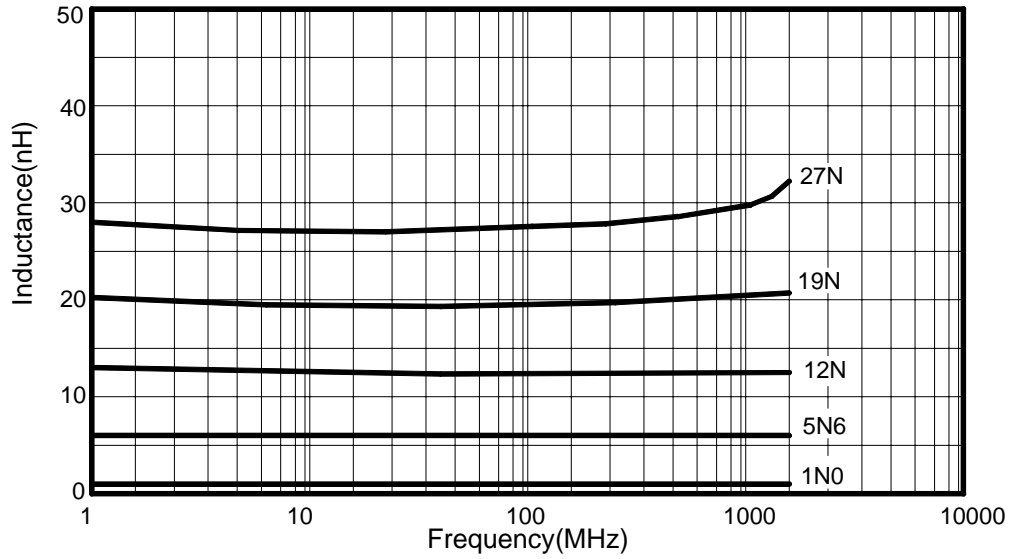
Part Number	Inductance nH	Percent Tolerance	Q Min	SRF Min GHz	R <sub>dc</sub> Max Ohms	I <sub>dc</sub> Max mA	900MHz		1.7GHz	
							L Typ	Q Typ	L Typ	QTtp
BCCWH-100505-1N0□	1.0 @ 250MHz	10,5	16	12.7	0.045	1360	1.02	77	1.02	69
BCCWH-100505-1N2□	1.2 @ 250MHz	10,5	14	12.0	0.045	1360	-	-	-	-
BCCWH-100505-1N5□	1.5 @ 250MHz	10,5	14	10.0	0.100	300	-	-	-	-
BCCWH-100505-1N9□	1.9 @ 250MHz	10,5	16	11.3	0.070	1040	1.72	68	1.74	82
BCCWH-100505-2N0□	2.0 @ 250MHz	10,5	16	11.1	0.070	1040	1.93	54	1.93	75
BCCWH-100505-2N2□	2.2 @ 250MHz	10,5	19	10.8	0.070	960	2.19	59	2.23	100
BCCWH-100505-2N4□	2.4 @ 250MHz	10,5	15	10.5	0.070	790	2.24	51	2.27	68
BCCWH-100505-2N7□	2.7 @ 250MHz	10,5	16	10.4	0.120	640	2.23	42	2.25	61
BCCWH-100505-3N3□	3.3 @ 250MHz	10,5,2	19	7.00	0.066	840	3.10	65	3.12	87
BCCWH-100505-3N6□	3.6 @ 250MHz	10,5,2	19	6.80	0.066	840	3.56	45	3.62	71
BCCWH-100505-3N9□	3.9 @ 250MHz	10,5,2	19	5.80	0.066	840	3.89	50	4.00	75
BCCWH-100505-4N3□	4.3 @ 250MHz	10,5,2	18	6.00	0.091	700	4.19	47	4.30	71
BCCWH-100505-4N7□	4.7 @ 250MHz	10,5,2	18	4.70	0.130	640	4.55	48	4.68	68
BCCWH-100505-5N1□	5.1 @ 250MHz	10,5,2	20	4.80	0.083	800	5.15	56	5.25	82
BCCWH-100505-5N6□	5.6 @ 250MHz	10,5,2	20	4.80	0.083	760	5.16	54	5.28	81
BCCWH-100505-6N2□	6.2 @ 250MHz	10,5,2	20	4.80	0.083	760	6.16	52	6.37	76
BCCWH-100505-6N8□	6.8 @ 250MHz	10,5,2	20	4.80	0.083	680	6.56	63	6.93	78
BCCWH-100505-7N5□	7.5 @ 250MHz	10,5,2	22	4.80	0.104	680	7.91	60	8.22	88
BCCWH-100505-8N2□	8.2 @ 250MHz	10,5,2	22	4.40	0.104	680	8.50	57	8.85	84
BCCWH-100505-8N7□	8.7 @ 250MHz	10,5,2	18	4.10	0.200	480	8.78	54	9.21	73
BCCWH-100505-9N0□	9.0 @ 250MHz	10,5,2	22	4.16	0.104	680	9.07	62	9.53	78
BCCWH-100505-9N5□	9.5 @ 250MHz	10,5,2	18	4.00	0.200	480	9.42	54	9.98	69
BCCWH-100505-100□	10 @ 250MHz	10,5,2	21	3.90	0.195	480	9.8	50	10.1	67
BCCWH-100505-110□	11 @ 250MHz	10,5,2	24	3.68	0.120	640	10.7	52	11.2	78
BCCWH-100505-120□	12 @ 250MHz	10,5,2	24	3.60	0.120	640	11.9	53	12.7	71
BCCWH-100505-130□	13 @ 250MHz	10,5,2	24	3.45	0.210	440	13.4	51	14.6	57
BCCWH-100505-150□	15 @ 250MHz	10,5,2	24	3.28	0.172	560	14.6	55	15.5	77
BCCWH-100505-160□	16 @ 250MHz	10,5,2	24	3.10	0.220	560	16.6	46	18.8	47
BCCWH-100505-180□	18 @ 250MHz	10,5,2	25	3.10	0.230	420	18.3	57	20.3	62
BCCWH-100505-190□	19 @ 250MHz	10,5,2	24	3.04	0.202	480	19.1	50	21.1	67
BCCWH-100505-200□	20 @ 250MHz	10,5,2	25	3.00	0.250	420	20.7	52	23.7	53
BCCWH-100505-220□	22 @ 250MHz	10,5,2	25	2.80	0.300	400	23.2	53	26.8	53
BCCWH-100505-230□	23 @ 250MHz	10,5,2	24	2.72	0.300	400	23.8	49	26.9	64
BCCWH-100505-240□	24 @ 250MHz	10,5,2	25	2.70	0.300	400	25.1	51	29.5	50
BCCWH-100505-270□	27 @ 250MHz	10,5,2	24	2.48	0.300	400	28.7	49	33.5	63
BCCWH-100505-300□	30 @ 250MHz	10,5,2	25	2.35	0.350	400	31.1	46	38.5	39
BCCWH-100505-330□	33 @ 250MHz	10,5,2	24	2.35	0.350	400	34.9	31	41.7	32
BCCWH-100505-360□	36 @ 250MHz	10,5,2	24	2.32	0.440	320	39.5	44	48.4	53
BCCWH-100505-390□	39 @ 250MHz	10,5,2	25	2.10	0.550	200	41.7	47	50.2	45
BCCWH-100505-400□	40 @ 250MHz	10,5,2	24	2.24	0.500	320	39.0	44	47.4	33
BCCWH-100505-430□	43 @ 250MHz	10,5,2	25	2.03	0.810	100	45.8	46	61.6	34
BCCWH-100505-470□	47 @ 250MHz	10,5,2	25	2.10	0.830	150	50.0	38	55.8	37
BCCWH-100505-510□	51 @250MHz <sub>Z</sub>	10,5,2	25	1.75	0.820	100	50.4	47	59.4	37
BCCWH-100505-560□	56 @250MHz <sub>Z</sub>	10,5,2	25	1.76	0.970	100	57.4	49	72.4	40
BCCWH-100505-680□	68 @250MHz <sub>Z</sub>	10,5,2	22	1.62	1.120	100	69.6	45	83.4	38
BCCWH-100505-820□	82 @250MHz <sub>Z</sub>	10,5,2	22	1.26	1.550	50	-	-	-	-
BCCWH-100505-R10□	100 @250MHz <sub>Z</sub>	10,5,2	22	1.16	2.000	30	-	-	-	-
BCCWH-100505-R12□	120 @250MHz <sub>Z</sub>	10,5,2	20	>1.80	2.660	50	-	-	-	-

Tolerance: G=±2%, J=±5%, K=±10%

Working Temperature Range : -40 °C ~ 125 °C

# Specification For Approval

L vs F & Q vs F Curve



# Specification For Approval

## Reliability Test Condition

TEST ITEMS	SPECIFICATIONS	TEST CONDITIONS / TEST METHODS
<b>*ELECTRICAL PERFORMANCE TEST</b>		
INDUCTANCE	REFER TO STANDARD ELECTRICAL CHARACTERISTIC LIST	HP 4291B
Q		HP 4291B
SRF		HP 8753D
DC RESISTANCE R <sub>DC</sub>		Micro-Ohmmeter (GOM-801G)
RATED CURRENT IDC		APPLIED THE CURRENT TO COILS, THE INDUCTANCE CHANGE SHOULD BE LESS THAN 10% TO INITIAL VALUE
OVER LOAD TEST	AFTER TEST, INDUCTORS SHALL BE NO EVIDENCE OF ELECTRICAL AND MECHANICAL DAMAGE	APPLIED 2 TIMES OF RATED ALLOWED DC CURRENT TO INDUCTOR FOR A PERIOD OF 5 MINUTE
WITHSTANDING VOITAGE TEST	1.AFTER TEST, INDUCTORS SHALL BE NO EVIDENCE OF ELECTRICAL AND MECHANICAL DAMAGE	AC VOLTAGE OF 500 VAC APPLIED BETWEEN INDLUICTORS TERMINAL AND CASE FOR 1 MINUTE
INSULATION RESISTANCE TEST	1000 MOHM MIN.	100 VDC APPLIED BETWEEN INDUCTOR TERMINAL AND CASE
<b>*MECHANICAL PERFORMANCE TEST</b>		
VIBARATION TEST (LOW FREQUENCY)	1.INDUCTORS SHOULD HAVE NO EVIDENCE OF ELECTRICAL AND MECHANICAL DAMAGE 2.INDUCTANCE SHOULD NOT CHANGE MORE THAN±5% 3.Q SHOULD NOT CHANGE MORE THAN±10%	1. AMPLITUDE: 1.5m/m 2. FREQUENCY: 10-55-10 Hz(1min) 3. DIRECTION: X, Y, Z 4. DURATION: 2 HRS/X, Y, Z
RESISTANCE TO SOLDERING TEST		1. PLUMBIC INDUCTOR: INDUCTORS SHOULD BE REF.LOW TO A .P.C BOARD. USING 63Sn/37Pb SOLDER PASTE.SOLDER PROCESS SHOULD BE 230 FOR 20±2 SECONDS 2. LEAD-FREE INDUCTOR: INDUCTORS SHOULD BE REF.LOW TO A .P.C BOARD. USING 96.5Sn/3.5Ag SOLDER PASTE.SOLDER PROCESS SHOULD BE 260 FOR 5±2 SECONDS.
COMPONENT ADHESIONN (PUSH TEST)	1 lbs. FOR 0402 2 lbs. FOR 0603 4 lbs. FOR THE REST	1. PLUMBIC INDUCTOR: THE DEVICE SHOULD BE REF.LOW SOLDERED (232 ±5 FOR 10 SECONDS) TO A TINNED COPPER SUBSTRATE. A DYNOMETER FORCE GAUGE SHOULD BE APPLIED TO THE SIDE OF THE COMPONENT. THE DEVICE MUST WITHSTAND A MINIMUM FORCE OF 2 OR 4 POUNDS WITHOUT A FAILURE OF THE TERMINATION ATTACHED TO COMPONENT 2. LEAD-FREE INDUCTOR: . THE DEVICE SHOULD BE REF.LOW SOLDERED (260 ±5 FOR 10 SECONDS) TO A TINNED COPPER SUBSTRATE. A DYNOMETER FORCE GAUGE SHOULD BE APPLIED TO THE SIDE OF THE COMPONENT. THE DEVICE MUST WITHSTAND A MINIMUM FORCE OF 2 OR 4 POUNDS WITHOUT A FAILURE OF THE TERMINATION ATTACHED TO COMPONENT
DROP TEST	AFTER TEST ,THE CHIP INDUCTOR DON'T FELL OR BROKE ON THE P.C BOARD.	DROP 1 TIME FOR EACH FACE AND 1 TIME FOR EACH CORNER.TOTAL DROP 10 TIMES. DROP HEIGHT :100 CM DROP WEIGHT :125 g (1. PLUMBIC INDUCTOR: THE INDUCTOR SHOULD SOLDER INTO P.C BOARD WITH 63Sn/37Pb 2. LEAD-FREE INDUCTOR: THE INDUCTOR SHOULD SOLDER INTO P.C BOARD WITH 96.5Sn/3.5Ag)
SOLDERABILITY TEST	THE TERMINAL SHOULD AT LEAST BE 90% COVERED WITH SOLDER	1. PLUMBIC INDUCTOR: AFTER FLUXING(ALPHA 100 OR EQUIV), INDUCTOR SHALL BE DIPPED IN A MELTED SOLDER BATH(63Sn/37Pb) AT 232 ±5 FOR 5 SECONDS. 2. LEAD-FREE INDUCTOR: AFTER FLUXING(ALPHA 100 OR EQUIV), INDUCTOR SHALL BE DIPPED IN A MELTED SOLDER BATH(SnCuNi) AT 250 ±5 FOR 3 SECONDS.
RESISTANCE TO SOLVENT TEST	THERE SHALL BE NO CASE OF DEFORMATION CHANGE IN APPEARANCE OR OBLITERATION	MIL-STD202F, METHOD 215D

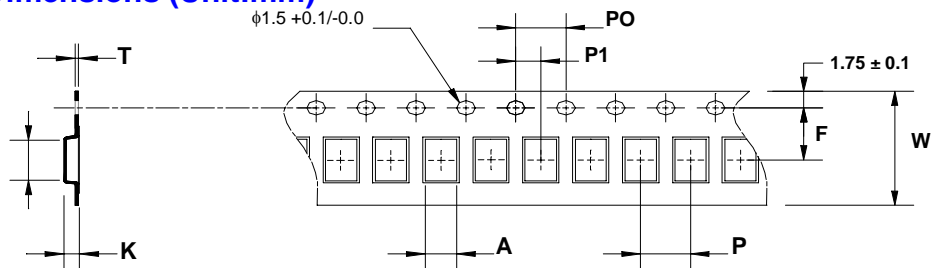
# Specification For Approval

	OF MARKING.	
*CLIMATIC TEST		
TEMPERATURE CHARACTERISTIC	1.INDUCTORSSHAL HAVE NO EVIDENCE OF ELECTRICAL AND MECHANICAL DAMAGE 2..INDUCTANCE SHALL NOT CHANGE MORE THAN $\pm 10\%$ 3. SHALL NOT CHANGE MORE THAN $\pm 20\%$	-40 ~ +125
HUMIDITY TEST		1. TEMP : $40 \pm 2$ 2. R.H. : 90 – 95% 3. TIME : 96 $\pm 2$ HOURS
LOW TEMPERATURE STORAGE TEST		1. TEMP : $-40 \pm 2$ 2. TIME : 48 $\pm 2$ HOURS 3.INDUCTORS ARE TO BE TESTED AFTER 1HOUR AT ROOM TEMPERATURE.
THERMAL SHOCK TEST		<p>             TOTAL : 5 CYCLES              (1. PLUMBIC INDUCTOR: THE INDUCTOR SHOULD SOLDER INTO P.C BOARD WITH 63Sn/37Pb              2. LEAD-FREE INDUCTOR: THE INDUCTOR SHOULD SOLDER INTO P.C BOARD WITH 96.5Sn/3.5Ag)           </p>
HIGH TEMPERATURE STORAGE TEST		1. TEMP : $125 \pm 2$ 2. TIME : 48 $\pm 2$ HOURS 3.INDUCTORS ARE TO BE TESTED AFTER 1HOUR AT ROOM TEMPERATURE.
HIGH TEMPERATURE LOAD LIFE TEST	THERE SHOULD BE NO EVIDENCE OF SHORT OR OPEN CIRCUIT	1. TEMP : $85 \pm 2$ 2. TIME : 1000 $\pm 12$ HOURS 3. LOAD : ALLOWED DC CURRENT (1.PLUMBIC INDUCTOR: THE INDUCTOR SHOULD SOLDER INTO P.C BOARD WITH 63Sn/37Pb 2. LEAD-FREE INDUCTOR: THE INDUCTOR SHOULD SOLDER INTO P.C BOARD WITH 96.5Sn/3.5Ag)
HUMIDITY LOAD LIFE	THERE SHOULD BE NO EVIDENCE OF SHORT OR OPEN CIRCUIT	1. TEMP : $40 \pm 2$ 2. R.H. : 90 – 95% 3. TIME : 1000 $\pm 12$ HOURS 4. LOAD : ALLOWED DC CURRENT (1. PLUMBIC INDUCTOR: THE INDUCTOR SHOULD SOLDER INTO P.C BOARD WITH 63Sn/37Pb 2. LEAD-FREE INDUCTOR: THE INDUCTOR SHOULD SOLDER INTO P.C BOARD WITH 96.5Sn/3.5Ag)
NOTE : UNLESS OTHERWISE SPECIFIED, ALLOW THE SPECIMEN TO STAND AT ROOM TEMPERATURE FOR 1 HOUR OR MORE BUT NOT MORE THAN 2 HOURS, MEASURE THE ELECTRICAL AND MECHANICAL PERFORMANCES.		

# Specification For Approval

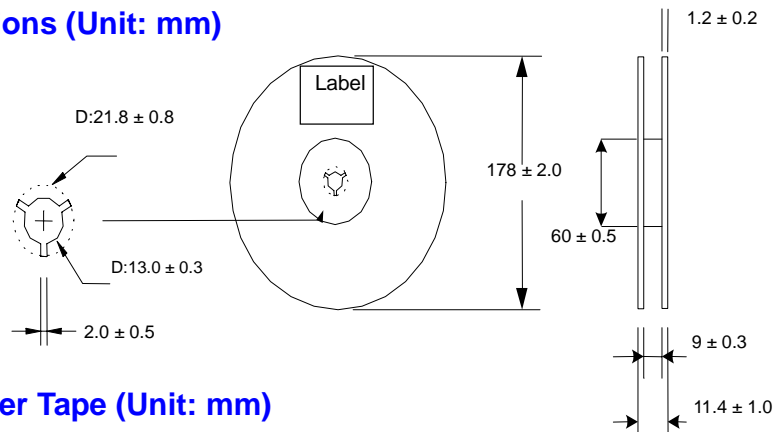
## Package Specification.

### Tape Dimensions (Unit:mm)

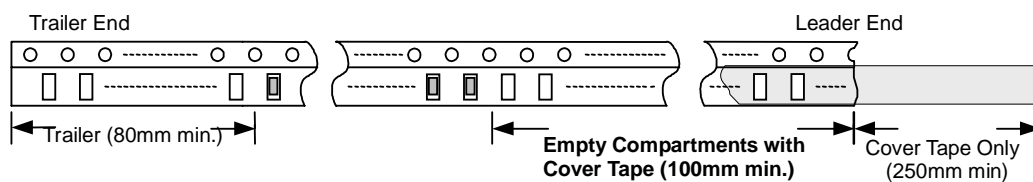


		Tape Dimensions (mm)									Parts (pcs)
		A	B	K	T	F	P	P0	P1	W	7"
<b>Ceramic</b>	CWHF-100505	0.71	1.16	0.65	0.23	3.5	2	4	0	8	4000

### Reel Dimensions (Unit: mm)



### Leader / Trailer Tape (Unit: mm)



### Peel-off Force

Peel-off force should be in the range of 0.1~0.6N at a peel-off speed of  $300 \pm 10$  mm/min

