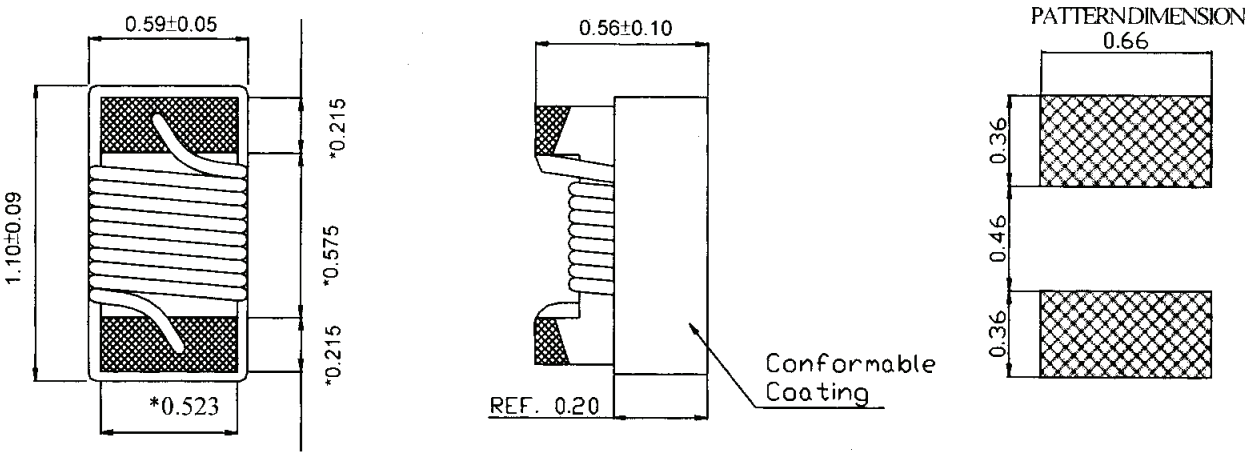
SPECIFICATION

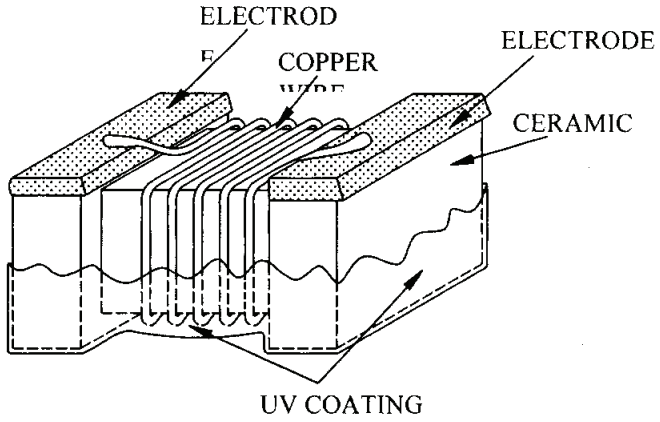
TYPE
HCFT0402C

1. APPEARANCE DIMENSION (UNIT : mm)



*CORE DIMENSION ※TOLERANCE: ±0.1mm.

2. FORMATION STRUCTURE



△1

PARTS	MATERIAL	MANUFACTURER	COUNTRY OF ORIGIN	UL No.	TEMP. CLASS
BOBBIN	CERAMIC(MB-4HXW6-N1S6 or MB-4HXW4-F1S) OR EQUIVALENT	PHONON MEIWA INC.	CHINA (TAIWAN)	NA	NA
WIRE	HSEW-C OR EQUIVALENT	RIKEN ELECTRIC WIRE CO., LTD.	JAPAN	E79028	155℃
UV COATING	UV RESIN (TB1357B) OR EQUIVALENT	THREEBOND (HONG KONG) CO., LTD.	CHINA (HONG KONG)	NA	NA
ELECTRODE	Mo-Mn/Ni/Sn or Ag-Pd/Ni/Sn OR EQUIVALENT	PHONON MEIWA INC.	CHINA (TAIWAN)	NA	NA

*NA:NOT APPLICABLE.

REMARK
CUST. P/N 、CEC. P/N: Refer. To Item3.

RoHS Compliant

TYPE
HCFT0402C

3. ELECTRICAL CHARACTERISTICS

No.	CUST. P/N	CEC. P/N	Inductance		Q	Test Freq.	S.R.F.	DCR	DCI
			L(nH)	Tolerance*	Min.	(MHz)	(GHz)Min.	(Ω) max.	(mA) max.
01			1.0	J,K	16.0	250	12.70	0.045	1360
02			1.9	J,K	16.0	250	11.30	0.070	1040
03			2.0	J,K	16.0	250	11.10	0.070	1040
04			2.2	J,K	19.0	250	10.80	0.070	960
05			2.4	J,K	15.0	250	10.50	0.068	790
06			2.7	J,K	16.0	250	10.40	0.120	640
07			3.3	J,K	19.0	250	7.00	0.066	840
08			3.6	J,K	19.0	250	6.80	0.066	840
09			3.9	J,K	19.0	250	6.00	0.066	840
10			4.3	J,K	18.0	250	6.00	0.091	700
11			4.7	J,K	15.0	250	4.77	0.130	640
12			5.1	J,K	20.0	250	4.80	0.083	800
13			5.6	J,K	20.0	250	4.80	0.083	760
14			6.2	J,K	20.0	250	4.80	0.083	760
15			6.8	J,K	20.0	250	4.80	0.083	680
16			7.5	G,J,K	22.0	250	4.80	0.100	680
17			8.2	G,J,K	22.0	250	4.40	0.100	680
18			8.7	G,J,K	18.0	250	4.10	0.200	480
19			9.0	G,J,K	22.0	250	4.16	0.100	680
20			9.5	G,J,K	18.0	250	4.00	0.200	480
21			10.0	G,J,K	21.0	250	3.90	0.200	480
22			11.0	G,J,K	24.0	250	3.68	0.120	640
23		HCTF0402C12NJ	12.0	J	24.0	250	3.60	0.120	640
24			13.0	G,J,K	24.0	250	3.45	0.210	440
25		HCTF0402C15NJ	15.0	J	24.0	250	3.28	0.170	560
26			16.0	G,J,K	24.0	250	3.10	0.220	560
27		HCTF0402C18NJ	18.0	J	24.0	250	3.10	0.230	420
28			19.0	G,J,K	24.0	250	3.04	0.200	480
29			20.0	G,J,K	25.0	250	3.00	0.250	420
30			22.0	G,J,K	25.0	250	2.80	0.300	400
31			23.0	G,J,K	22.0	250	2.72	0.300	400
32			24.0	G,J,K	25.0	250	2.70	0.300	400
33			27.0	G,J,K	24.0	250	2.48	0.300	400
34			30.0	G,J,K	25.0	250	2.35	0.300	400
35			33.0	G,J,K	24.0	250	2.35	0.300	400
36			36.0	G,J,K	24.0	250	2.32	0.440	320
37			39.0	G,J,K	25.0	250	2.10	0.550	200
38			40.0	G,J,K	24.0	250	2.24	0.440	320
39			43.0	G,J,K	25.0	250	2.03	0.810	100
40			47.0	J,K	20.0	250	2.10	0.830	150
41			51.0	G,J,K	25.0	250	1.75	0.820	100
42			56.0	G,J,K	22.0	250	1.76	0.970	100
43			68.0	G,J,K	22.0	250	1.62	1.120	100
44			82.0	J,K	20.0	250	2.0	2.24	100
45			100.0	J,K	20.0	250	1.1	2.52	120
46			120.0	J,K	20.0	250	1.0	2.66	110

* Testing instrument and conditions
  D.C.R : HP 34420A or equivalent Inductance & Q : HP 4287A & HP16193A or equivalent
  S.R.F. : HP 8720ES or equivalent DCI : Based on a 20°C maximum temperature rise above 25°C ambient.
* Inductance tolerance: G = ±2%, J = ±5%, K = ±10%
* Electrical charateristic at 25°C.

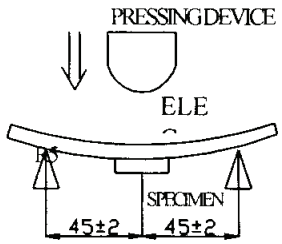
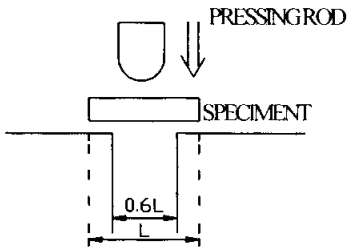
REMARK	SPEC. No. 3/5
	H500-0421

4. GENERAL CHARACTERISTICS

TYPE
HCFT0402C

* STANDARD TESTING CONDITIONS:

UNLESS OTHERWISE SPECIFIED, THE STANDARD RANGE OF ATMOSPHERIC CONDITIONS FOR MEASUREMENTS AND TESTS ARE AS FOLLOWS: AMBIENT TEMPERATURE: 15℃~35℃.
RELATIVE HUMIDITY : 25%~85%. AIR PRESSURE : 86kPa~106kPa.
IF THERE IS ANY DOUBT ABOUT THE RESULTS, MEASUREMENT SHALL BE MADE WITHIN THE FOLLOWING LIMITS:
AMBIENT TEMPERATURE: 20℃±1℃. RELATIVE HUMIDITY: 63%~67%.
AIR PRESSURE : 86kPa~106kPa.

No.	ITEM	CONDITION	SPECIFICATION
1	OPERATION TEMPERATURE		-40～+125℃ (INCLUDING COIL TEMPERATURE RISE DUE TO SELF-GENERATED HEAT)
2	STORAGE TEMPERATURE		-40～+125℃
3	TEMPERATURE COEFFICIENT	-40～+85℃	DEVIATION RELATIVE TO INITIAL VALUE AT 25℃. L: WITHIN±5.0%
4	BENDING	APPLY PRESSURE GRADUALLY IN THE DIRECTION OF THE ARROW AT A RATE OF ABOUT 0.5mm/sec UNTIL BENT DEPTH REACHES 3mm AND HOLD FOR 30sec.  BOAD: 40×100mm. THICKNESS 1.0mm.	NO MECHANICAL DANAGE SUCH AD BREAKAGE OR CRACK.
5	FIXING STRENGTH	SAMPLE IS PUSHED IN THREE DIRECTIONS OF X, Y AND Z WITH FORCE OF 4.5N FOR 10 SECONDS AFTER SOLDERING BETWEEN COPPER PLATE AND ELECTRODES.	NO ELECTRODE DETACHMENT.
6	BODY STRENGTH TEST	STATIC PRESSURE: 10N DURATION: 10 SECONDS 	NO MECHANICAL DANAGE SUCH AD BREAKAGE OR CRACK.
7	SOLDERABILITY TEST	IMMERSE THE ELECTRODE IN FLUX FOR 5 SECONDS. THEN DIP THE ELECTRODE INTO A SOLDERING BATH OF 245±5℃ FOR 2±0.5 SECONDS.	OVER 95% OF THE SURFACE BEING IMMERSED SHALL BE COVERED WITH NEW SOLDER UNIFORMLY.

No.	ITEM	CONDITION	SPECIFICATION
8	RESISTANCE TO SOLDERING HEAT TEST(SOLDERING IRON)	APPLY THE SOLDERING IRON OF 350℃±10℃ TO EACH ELECTRODE FOR 3±0.5 SECONDS.	NO MECHANICAL BREAKAGE. DEVIATION RELATIVE TO INITIAL VALUE: L: WITHIN ±3.0%
9	RESISTANCE TO SOLDERING HEAT TEST(REFLOW SOLDERING)	PLEASE REFER TO THE ATTACHMENT STD-002NP.	
10	VIBRATION TEST	AMPLITUDE: 1.5mm P-P FREQUENCY: 10～55～10Hz(1 MINUTE PER CYCLE) DURATION: 2 HOURS IN EACH OF X,Y,Z AXIS.(TOTAL 6 HOURS)	DEVIATION RELATIVE TO INITIAL VALUE: L: WITHIN ±2.0%
11	SHOCK TEST	PEAK ACCELERATION: 981m/s² DURATION OF PULSE: 10ms SHOCK TIMES: 3 TIMES IN EACH OF X, Y, Z AXIS.(TOTAL 9 TIMES)	
12	LOW TEMPERATURE STORAGE TEST	TEMPERATURE: -40℃±3℃ DURATION: 1000±12 HOURS. RECOVERY: 1 TO 2 HOURS RECOVERY UNDER STANDARD CONDITION.	*NO MECHANICAL BREAKAGE. *DEVIATION RELATIVE TO INITIAL VALUE: L: WITHIN ±5.0% Q: WITHIN ±20%
13	HIGH TEMPERATURE STORAGE TEST	TEMPERATURE: 125℃±2℃ DURATION: 1000±12 HOURS. RECOVERY: 1 TO 2 HOURS RECOVERY UNDER STANDARD CONDITION.	
14	HUMIDITY TEST	TEMPERATURE: 60℃±2℃ HUMIDITY: 90%～95%RH DURATION: 1000±12 HOURS. RECOVERY: 1 TO 2 HOURS RECOVERY UNDER STANDARD CONDITION.	
15	HUMIDITY LOAD LIFE TEST	TEMPERATURE: 60℃±2℃ HUMIDITY: 90%～95%RH LOAD CONDITION: RATED CURRENT DURATION: 1000±12 HOURS. RECOVERY: 1 TO 2 HOURS RECOVERY UNDER STANDARD CONDITION.	
16	THERMAL SHOCK	100 CONTINUOUS CYCLES SHOWN AS BELOW TEMPERATURE / DURATION -40℃±3℃ / 30 MINUTES. 125℃±2℃ / 30 MINUTES. RECOVERY: 1 TO 2 HOURS RECOVERY UNDER STANDARD CONDITION.	

5. PACKING

PACKAGE TO BE ACCORDING TO PACKAGE SPECIFICATIONS. (TICK THE RELEVANT "√")

☐ KB-CTR050; ☑ KB-CTR634; ☐ KB-CTR834;

☐ SPECIAL FOR CUSTOMER KB☐☐☐☐☐-☐☐☐

6. REMARK

* RECOMMENDED REFLOW CONDITION BASES ON STD-001NP.
* RECOMMENDED HEAT ENDURANCE TEST BASES ON STD-002NP.

RoHS Compliant