

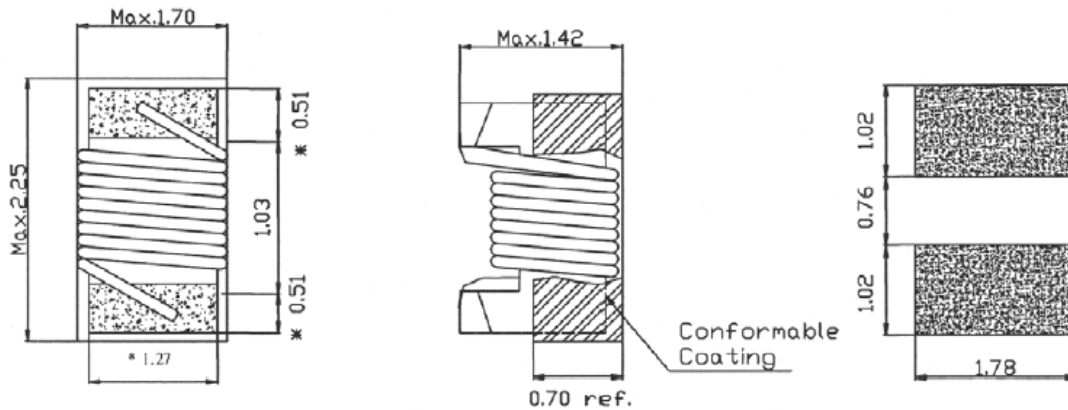


WIRE WOUND CHIP INDUCTORS

SPECIFICATION

TYPE
CCFH 0805 C

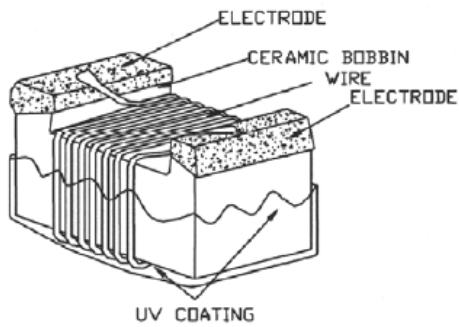
1. APPEARANCE DIMENSION (UNIT : mm)



* ELECTRODE DIMENSION

※TOLERANCE: ±0.1mm.

2. FORMATION STRUCTURE



PARTS	MATERIAL
BOBBIN	CERAMIC (MB-2UBW4-M2S8)
WIRE	POLYESTER ENAMELLED COPPER WIRE
UV COATING	UV RESIN (TB1357B)



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3. ELECTRICAL CHARACTERISTICS

No.	CEC. P/N	Inductance		Test Freq. (MHz)	Q Min.	Test Freq. (MHz)	S.R.F. (MHz)Min.	DCR (Ω) max.	DCI (mA)
		L (nH)	Tolerance *						
01	CCFH 0805 C 2N7 <input type="checkbox"/>	2.7	J, K	250	80	1500	7900	0.06	800
02	CCFH 0805 C 3N0 <input type="checkbox"/>	3.0	J, K	250	65	1500	7900	0.06	800
03	CCFH 0805 C 3N3 <input type="checkbox"/>	3.3	J, K	250	50	1500	7900	0.08	600
04	CCFH 0805 C 5N6 <input type="checkbox"/>	5.6	J, K	250	65	1000	5500	0.08	600
05	CCFH 0805 C 6N8 <input type="checkbox"/>	6.8	J, K	250	50	1000	5500	0.11	600
06	CCFH 0805 C 7N5 <input type="checkbox"/>	7.5	J, K	250	50	1000	4500	0.14	600
07	CCFH 0805 C 8N2 <input type="checkbox"/>	8.2	G, J, K	250	50	1000	4700	0.12	600
08	CCFH 0805 C 10N <input type="checkbox"/>	10.0	G, J, K	250	60	500	4200	0.10	600
09	CCFH 0805 C 12N <input type="checkbox"/>	12.0	G, J, K	250	50	500	4000	0.15	600
10	CCFH 0805 C 15N <input type="checkbox"/>	15.0	G, J, K	250	50	500	3400	0.17	600
11	CCFH 0805 C 18N <input type="checkbox"/>	18.0	G, J, K	250	50	500	3300	0.20	600
12	CCFH 0805 C 22N <input type="checkbox"/>	22.0	G, J, K	250	55	500	2600	0.22	500
13	CCFH 0805 C 24N <input type="checkbox"/>	24.0	G, J, K	250	50	500	2000	0.22	500
14	CCFH 0805 C 27N <input type="checkbox"/>	27.0	G, J, K	250	55	500	2500	0.25	500
15	CCFH 0805 C 33N <input type="checkbox"/>	33.0	G, J, K	250	60	500	2050	0.27	500
16	CCFH 0805 C 36N <input type="checkbox"/>	36.0	G, J, K	250	55	500	1700	0.27	500
17	CCFH 0805 C 39N <input type="checkbox"/>	39.0	G, J, K	250	60	500	2000	0.29	500
18	CCFH 0805 C 43N <input type="checkbox"/>	43.0	G, J, K	200	60	500	1650	0.34	500
19	CCFH 0805 C 47N <input type="checkbox"/>	47.0	G, J, K	200	60	500	1650	0.31	500
20	CCFH 0805 C 56N <input type="checkbox"/>	56.0	G, J, K	200	60	500	1550	0.34	500
21	CCFH 0805 C 68N <input type="checkbox"/>	68.0	G, J, K	200	60	500	1450	0.38	500
22	CCFH 0805 C 82N <input type="checkbox"/>	82.0	G, J, K	150	65	500	1300	0.42	400
23	CCFH 0805 C 91N <input type="checkbox"/>	91.0	G, J, K	150	65	500	1200	0.48	400
24	CCFH 0805 C R10 <input type="checkbox"/>	100.0	G, J, K	150	65	500	1200	0.46	400
25	CCFH 0805 C R11 <input type="checkbox"/>	110.0	G, J, K	150	50	250	1000	0.48	400
26	CCFH 0805 C R12 <input type="checkbox"/>	120.0	G, J, K	150	50	250	1100	0.51	400
27	CCFH 0805 C R15 <input type="checkbox"/>	150.0	G, J, K	100	50	250	920	0.56	400
28	CCFH 0805 C R18 <input type="checkbox"/>	180.0	G, J, K	100	50	250	870	0.64	400
29	CCFH 0805 C R22 <input type="checkbox"/>	220.0	G, J, K	100	50	250	850	0.70	400
30	CCFH 0805 C R24 <input type="checkbox"/>	240.0	G, J, K	100	44	250	690	1.0	350
31	CCFH 0805 C R27 <input type="checkbox"/>	270.0	G, J, K	100	48	250	650	1.0	350
32	CCFH 0805 C R33 <input type="checkbox"/>	330.0	G, J, K	100	48	250	600	1.4	310
33	CCFH 0805 C R39 <input type="checkbox"/>	390.0	G, J, K	100	48	250	560	1.5	290
34	CCFH 0805 C R47 <input type="checkbox"/>	470.0	J, K	50	33	100	375	1.76	250
35	CCFH 0805 C R56 <input type="checkbox"/>	560.0	J, K	25	23	50	340	1.90	230
36	CCFH 0805 C R68 <input type="checkbox"/>	680.0	J, K	25	23	50	188	2.20	190
37	CCFH 0805 C R82 <input type="checkbox"/>	820.0	J, K	25	23	50	215	2.35	180
38	CCFH 0805 C 1R0 <input type="checkbox"/>	1000.0	J, K	25	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 & HP16193A or equivalent

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

※ Inductance tolerance: G = $\pm 2\%$, J = $\pm 5\%$, K = $\pm 10\%$

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4. STORAGE TEMPERATURE: -40 ~ +125°C.

5. OPERATION TEMPERATURE: -40 ~ +125°C (INCLUDING COIL TEMPERATURE RISE DUE TO SELF-GENERATED HEAT)

6. RELIABILITY TEST STANDARD

* STANDARD TESTING CONDITIONS:

UNLESS OTHERWISE SPECIFIED, THE STANDARD RANGE OF ATMOSPHERIC CONDITIONS FOR MEASUREMENTS AND TESTS ARE AS FOLLOWS: AMBIENT TEMPERATURE: 15°C~35°C.

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°C±1°C. RELATIVE HUMIDITY: 63% ~67%.

AIR PRESSURE : 86kPa ~106kPa.

No.	ITEM	CONDITION	SPECIFICATION
1	TEMPERATURE COEFFICIENT	-40 ~ +85°C	DEVIATION RELATIVE TO INITIAL VALUE AT 25°C. L: WITHIN±5.0%
2	BENDING	<p>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.</p> <p>BOARD: 40x100mm, THICKNESS 1.0mm.</p>	NO MECHANICAL DAMAGE SUCH AS BREAKAGE OR CRACK. ELECTRICAL CHARACTERISTICS SHALL BE SATISFIED.
3	FIXING STRENGTH	SAMPLE IS PUSHED IN THREE DIRECTIONS OF X, Y AND Z WITH FORCE OF 10N FOR 10 SECONDS AFTER SOLDERING BETWEEN COPPER PLATE AND ELECTRODES.	NO ELECTRODE DETACHMENT.
4	BODY STRENGTH TEST	<p>STATIC PRESSURE: 10N DURATION: 10 SECONDS</p>	NO MECHANICAL DAMAGE SUCH AS BREAKAGE OR CRACK. ELECTRICAL CHARACTERISTICS SHALL BE SATISFIED.
5	SOLDERABILITY TEST	IMMERSE THE ELECTRODE IN FLUX FOR 5 SECONDS, THEN DIP THE ELECTRODE INTO A SOLDERING BATH OF 245±5°C FOR 2±0.5 SECONDS.	OVER 95% OF THE SURFACE BEING IMMERSERD SHALL BE COVERED WITH NEW SOLDER UNIFORMLY.



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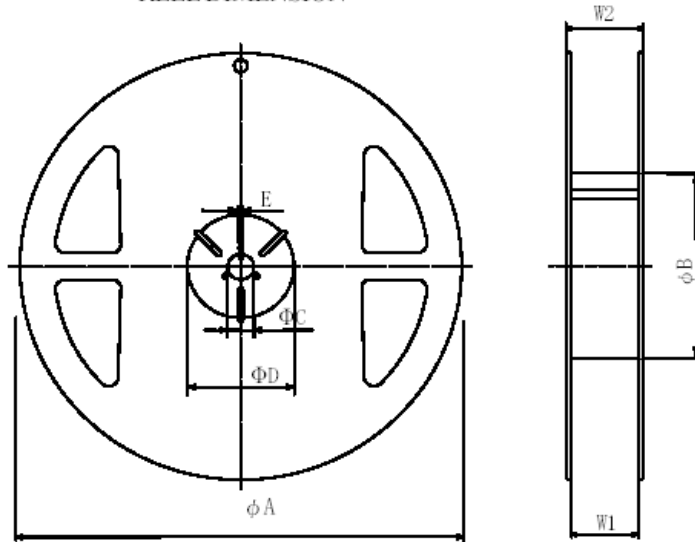
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No.	ITEM	CONDITION	SPECIFICATION						
6	RESISTANCE TO SOLDERING HEAT TEST(SOLDERING IRON)	APPLY THE SOLDERING IRON OF 350°C±10°C TO EACH ELECTRODE FOR 3±0.5 SECONDS.	NO MECHANICAL BREAKAGE. DEVIATION RELATIVE TO						
7	RESISTANCE TO SOLDERING HEAT TEST (REFLOW SOLDERING)	PLEASE REFER TO THE ATTACHMENT STD-002NP.	INITIAL VALUE: L: WITHIN ±3.0%						
8	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%						
9	SHOCK TEST	PEAK ACCELERATION: 981m/s ² DURATION OF PULSE: 10ms SHOCK TIMES: 3 TIMES IN EACH OF X, Y, Z AXIS. (TOTAL 9 TIMES)							
10	LOW TEMPERATURE STORAGE TEST	TEMPERATURE: -40°C±3°C DURATION:1000±12 HOURS. RECOVERY:1 TO 2 HOURS RECOVERY UNDER STANDARD CONDITION.							
11	HIGH TEMPERATURE STORAGE TEST	TEMPERATURE: 125°C±2°C DURATION:1000±12 HOURS. RECOVERY:1 TO 2 HOURS RECOVERY UNDER STANDARD CONDITION.							
12	HUMIDITY TEST	TEMPERATURE: 60°C±2°C HUMIDITY: 90%~95%RH 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	HUMIDITY LOAD LIFE TEST	TEMPERATURE: 60°C±2°C HUMIDITY: 90%~95%RH LOAD CONDITION:RATED CURRENT DURATION:1000±12 HOURS. RECOVERY:1 TO 2 HOURS RECOVERY UNDER STANDARD CONDITION.							
14	THERMAL SHOCK	100 CONTINUOUS CYCLES SHOWN AS BELOW <table border="1"> <thead> <tr> <th>TEMPERATURE</th> <th>DURATION</th> </tr> </thead> <tbody> <tr> <td>-40°C±3°C</td> <td>30 MINUTES.</td> </tr> <tr> <td>125°C±2°C</td> <td>30 MINUTES.</td> </tr> </tbody> </table> RECOVERY:1 TO 2 HOURS RECOVERY UNDER STANDARD CONDITION.	TEMPERATURE	DURATION	-40°C±3°C	30 MINUTES.	125°C±2°C	30 MINUTES.	
TEMPERATURE	DURATION								
-40°C±3°C	30 MINUTES.								
125°C±2°C	30 MINUTES.								



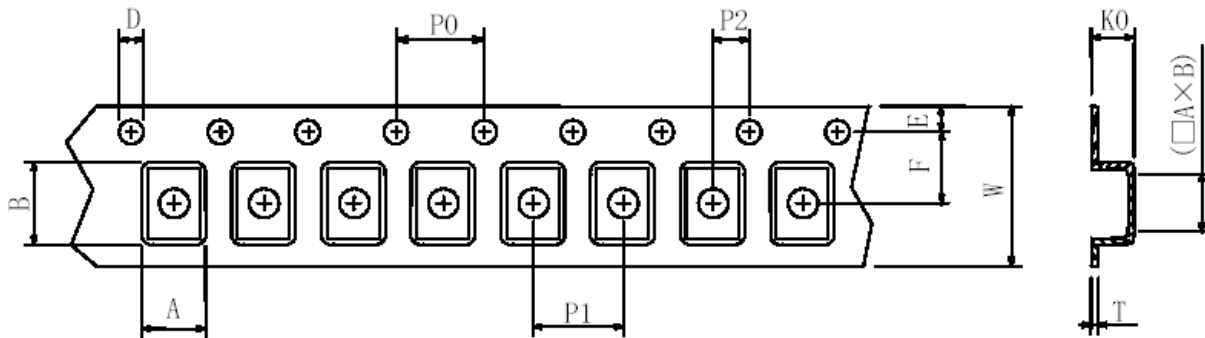
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REEL DIMENSION



Reel Dimensions(mm)						
A	B	C	D	E	W1	W2
$\phi 180 \pm 0.3$	$\phi 60 \pm 1.0$	$\phi 13 \pm 0.2$	$\phi 21 \pm 0.8$	2.0 ± 0.5	9 ± 1.0	11.4 ± 1.0

TAPE DIMENSION



Tape Dimensions(mm)				
A	B	K0	T	W
1.8 ± 0.1	2.45 ± 0.1	1.48 ± 0.1	0.2 ± 0.02	8.0 ± 0.3

Tape Dimensions(mm)					
P0	P1	P2	D	E	F
4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.05	$\phi 1.5 \pm 0.1, -0$	1.75 ± 0.1	3.5 ± 0.05

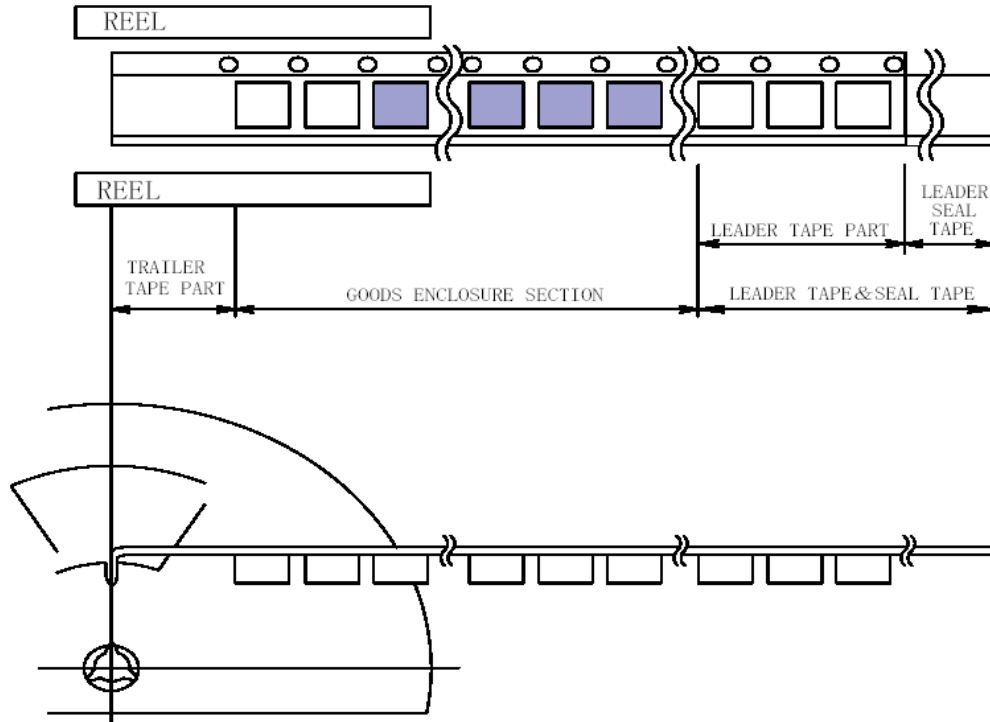
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FIGURE 3 TAPE DIRECTION, LEADER, TRAILER SECTION DIMENSION

LEADER TAPE & SEAL PART	MIN.400mm
LEADER TAPE PART	MIN.100mm
TRAILER TAPE PART	MIN.160mm

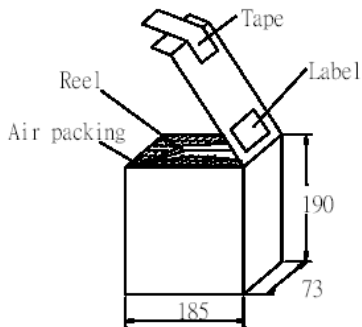


10. OUTER PACKING

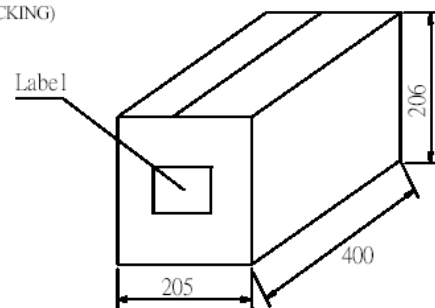
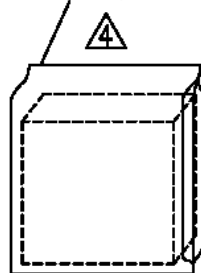
INNER BOX DIMENSION(REF):

VACUUM PACKING:

OUTER CARTON DIMENSION(REF):



PLASTIC BAG(VACUUM PACKING)



△ (5 REELS / BOX; 2 DESICCANT / BOX)

(5 BOXES / CARTON)

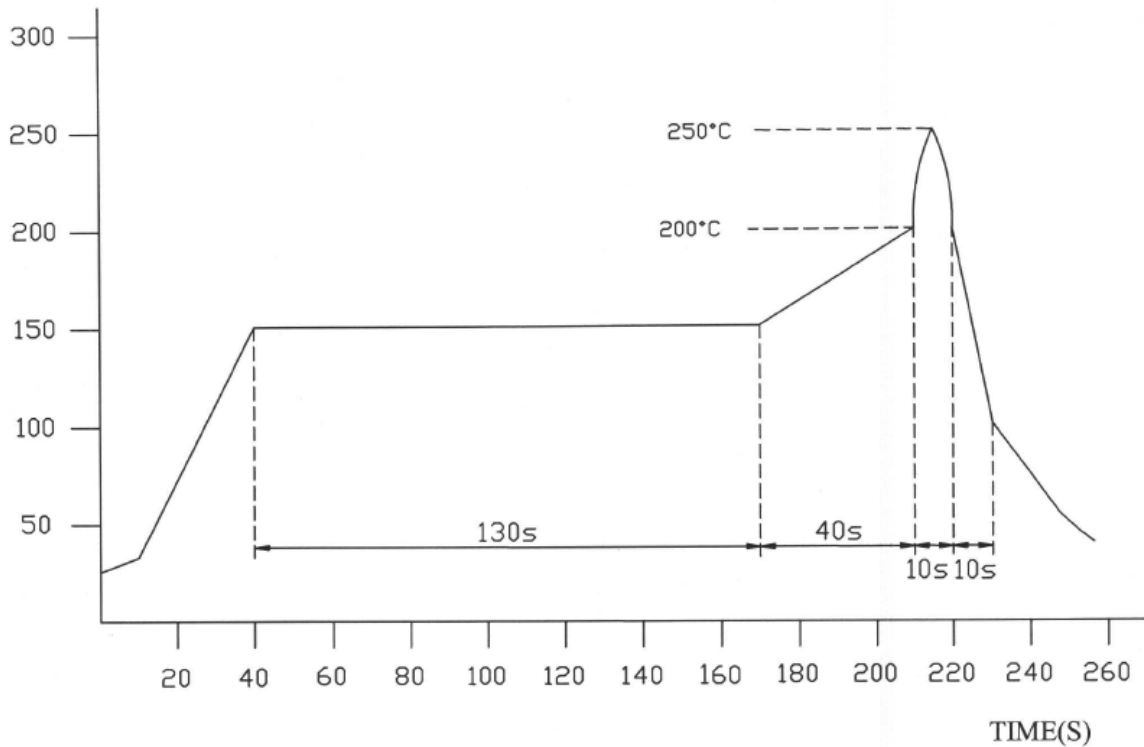
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THE RECOMMENDED REFLOW CONDITION (LEAD FREE)

TEMPERATURE
°C



* THE REFLOW CONDITION RECOMMENDED ABOVE IS ACCORDING TO THE MACHINE USED BY OUR COMPANY. BIG DIFFERENCES WILL ARISE AS A RESULT OF THE TYPE OF MACHINE, REFLOW CONDITIONS, METHOD, ETC USED. HENCE, BEFORE SETTING UP YOUR REFLOW CONDITIONS, PLEASE CONFIRM WITH THE ABOVE. MOREOVER, PLEASE CLEAR ALL DOUBTS WITH OUR COMPANY BEFORE STARTING.

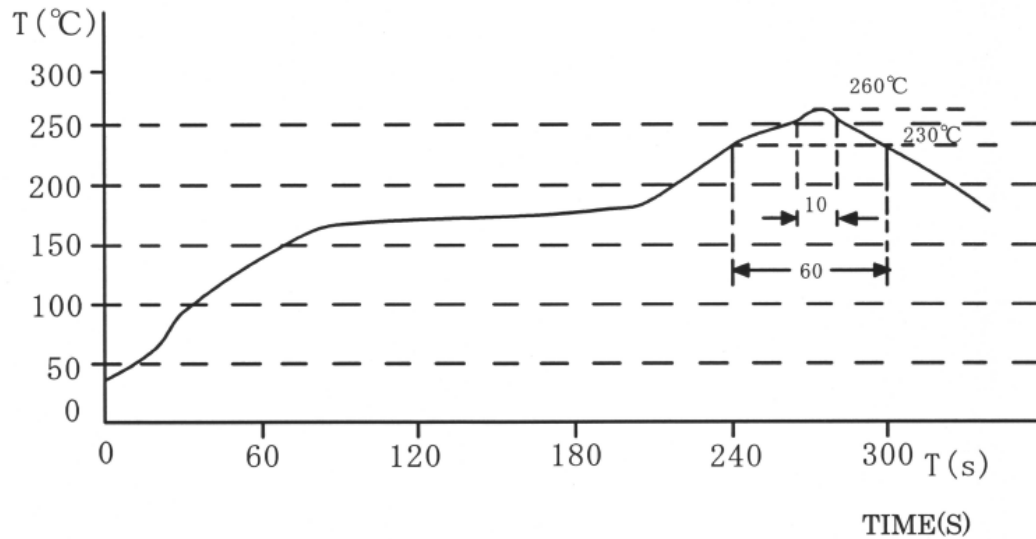
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WIRE WOUND CHIP INDUCTORS

HEAT ENDURANCE TEST (LEAD FREE)

TEMPERATURE



- * THE TEST SHOULD BE MADE UNDER THE CONDITIONS ACCORDING TO THE CHART, AFTER THE TEST IT IS KEPT FOR 2 HOURS UNDER THE NORMAL TEMPERATURE AND HUMIDITY. THEN, NO MECHANICAL AND ELECTRICAL DEFECT SHOULD BE FOUND OUT.
- * THE REFLOW TEST CAN BE DONE TWICE, BUT THE INTERVAL SHOULD BE MORE THAN ONE HOUR UNDER THE NORMAL CONDITIONS.
- * THE REFLOW TEST CONDITIONS ARE BASED ON THE TESTING INSTRUMENTS AVAILABLE IN CEC.