

MESSRS:

COMET

SPEC NO.

H500-0548

LEAD FREE

DATE: 2006/07/10

《NEW/AMENDED》

APPROVAL SPECIFICATION

DESCRIPTION: SEALED INDUCTORS

MODEL (PART NO.) A60706016

CUSTOMER'S PART NO.

AMENDED

CUSTOMER'S PART NO.

【FOR APPROVAL】

DATE: _____

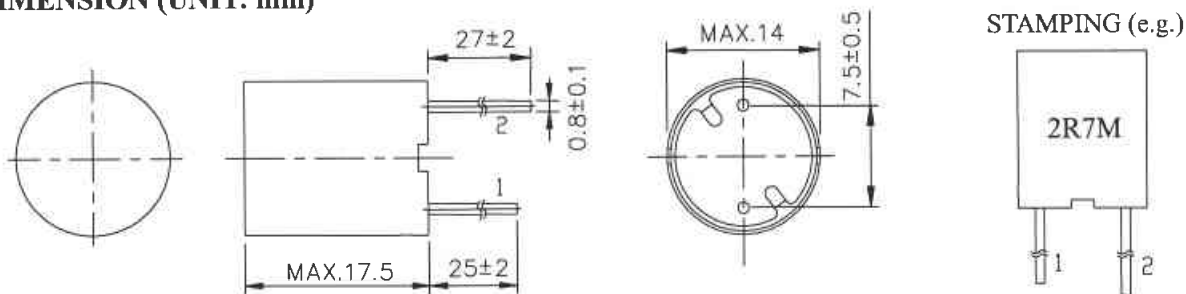
* THIS SPECIFICATION IS CONSTITUTED WITH 9 PAGES INCLUDING ATTACHMENTS.

高雅線圈製品有限公司
COILS ELECTRONIC CO., LTD.

Approved by	Checked by	In charge
		

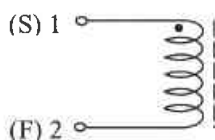
SPECIFICATION

1. DIMENSION (UNIT: mm)



- ※ THE RECOMMENDED DIAMETER OF PCB MOUNTING HOLE TO BE 1.2mm FOR THE ULTRA THICK WIRE USED FOR THE INDUCTANCE RANGE FROM 3.3 μ H~120 μ H.
- * THE LENGTH OF THE TERMINAL PINS DOES NOT INCLUDE SOLDER TIP.
- * PIN PITCH TO BE MEASURED FROM THE ROOT OF TERMINAL.

2. CIRCUIT



3. ELECTRICAL CHARACTERISTICS

No.	PART No.	STAMP	INDUCTANCE (μ H)	UNLOADED Q Min.	D.C.R. (Ω) Max.	S.R.F. (MHz) REF.	RATED CURRENT Max. (A)	
							Idc1	Idc2
01	*****	2R7M	2.7±20%	40	13m	77	15.3	6.8
02	*****	3R3M	3.3±20%		14m	67	14.4	6.6
03	*****	4R7M	4.7±20%	50	15m	61	13.0	6.4
04	*****	5R6M	5.6±20%		18m	55	12.4	6.2
05	*****	6R8M	6.8±20%		19m	46	11.4	6.0
06	*****	8R2M	8.2±20%	40	22m	33	9.4	5.5
07	*****	100K	10±10%		24m	24	9.2	5.4
08	*****	120K	12±10%		27m	17	7.8	4.9
09	*****	150K	15±10%		28m	14	7.6	4.4
10	*****	180K	18±10%		31m	10	6.5	4.3
11	*****	220K	22±10%		34m	7.5	6.1	4.2
12	*****	270K	27±10%	30	40m	7.2	5.2	4.0
13	*****	330K	33±10%		43m	6.9	5.0	3.9
14	*****	390K	39±10%	25	48m	6.2	4.5	3.5
15	*****	470K	47±10%		53m	5.6	4.0	3.3
16	*****	560K	56±10%		66m	5.3	3.7	3.0
17	*****	680K	68±10%		80m	4.2	3.2	2.5
18	*****	820K	82±10%		95m	4.0	2.9	2.4
19	A60706016	101K	100±10%	30	0.11	3.8	2.7	2.0
20	*****	121K	120±10%		0.13	3.3	2.5	1.8

REMARK

LEAD FREE

SPEC. No.

2/5

H500-0548

ELECTRICAL CHARACTERISTICS

No.	PART No.	STAMP	INDUCTANCE (μ H)	UNLOADED Q Min.	D.C.R. (Ω) Max.	S.R.F. (MHz) REF.	RATED CURRENT Max. (A)	
							Idc1	Idc2
21	*****	151K	150 \pm 10%	30	0.16	2.8	2.1	1.6
22	*****	181K	180 \pm 10%		35	0.19	2.7	2.0
23	*****	221K	220 \pm 10%	35		0.24	2.3	1.8
24	*****	271K	270 \pm 10%		45	0.29	2.1	1.7
25	*****	331K	330 \pm 10%	35		0.37	1.8	1.5
26	*****	391K	390 \pm 10%		0.43	1.7	1.4	0.98
27	*****	471K	470 \pm 10%		0.47	1.6	1.2	0.94
28	*****	561K	560 \pm 10%		0.54	1.5	1.1	0.89
29	*****	681K	680 \pm 10%		0.65	1.3	1.0	0.80
30	*****	821K	820 \pm 10%		0.78	1.2	0.96	0.74
31	*****	102K	1000 \pm 10%	50	1.1	1.0	0.80	0.62
32	*****	122K	1200 \pm 10%		1.3	0.98	0.82	0.57
33	*****	152K	1500 \pm 10%		1.5	0.92	0.71	0.52
34	*****	182K	1800 \pm 10%		1.8	0.88	0.65	0.49
35	*****	222K	2200 \pm 10%	70	2.4	0.73	0.58	0.40
36	*****	272K	2700 \pm 10%		2.9	0.68	0.53	0.38
37	*****	332K	3300 \pm 10%		3.0	0.63	0.48	0.37
38	*****	392K	3900 \pm 10%		4.1	0.58	0.44	0.34
39	*****	472K	4700 \pm 10%		4.3	0.53	0.40	0.30
40	*****	562K	5600 \pm 10%		5.9	0.47	0.37	0.27
41	*****	682K	6800 \pm 10%		6.2	0.43	0.34	0.25
42	*****	822K	8200 \pm 10%		7.5	0.40	0.30	0.23
43	*****	103K	10000 \pm 10%		8.4	0.38	0.28	0.20
44	*****	123K	12000 \pm 10%		85	13	0.32	0.25
45	*****	153K	15000 \pm 10%	16		0.29	0.22	0.16
46	*****	183K	18000 \pm 10%	65	19	0.24	0.20	0.14
47	*****	223K	22000 \pm 10%		24	0.23	0.18	0.12
48	*****	273K	27000 \pm 10%		31	0.20	0.16	0.11
49	*****	333K	33000 \pm 10%	55	39	0.19	0.15	95m
50	*****	393K	39000 \pm 10%		52	0.18	0.14	80m
51	*****	473K	47000 \pm 10%	30	62	0.14	0.12	75m
52	*****	563K	56000 \pm 10%		69	0.13	0.11	70m
53	*****	683K	68000 \pm 10%	25	93	0.12	0.10	65m
54	*****	823K	82000 \pm 10%	10	105	0.11	95m	60m
55	*****	104K	100000 \pm 10%		120	0.10	85m	55m

- * TESTING CONDITION: INDUCTANCE: at 1kHz/1V, Q: at 100kHz/1V.
- * Idc1: THE CURRENT WHEN THE INDUCTANCE DECREASES TO 90% OF INITIAL VALUE. (Ta=25°C)
- * Idc2: THE CURRENT WHEN THE TEMPERATURE OF COIL INCREASES BY 40°C. (Ta= 25°C)
- * THE RATED CURRENT INDICATES THE SMALLER ONE BETWEEN Idc1 AND Idc2.
- * TESTING INSTRUMENT
 INDUCTANCE & Q: HP 4284A OR EQUIVALENT.
 D.C.R.: KEITHLEY HP-34420A MICRO OHM METER OR EQUIVALENT.
 S.R.F.: HP-4291B OR EQUIVALENT.
 RATED CURRENT: HP 4284A, HP 42841A, HP-E3633A, HP-34420A OR EQUIVALENT.

REMARK	SPEC. No. 3/5
	H500-0548

4. GENERAL CHARACTERISTICS

* STANDARD TESTING CONDITIONS:

UNLESS OTHERWISE SPECIFIED, THE STANDARD RANGE OF ATMOSPHERIC CONDITIONS FOR MEASUREMENTS AND TESTS ARE AS FOLLOWS: AMBIENT TEMPERATURE: 15°C TO 35°C. RELATIVE HUMIDITY : 25% TO 85%.

AIR PRESSURE : 86kPa TO 106kPa.

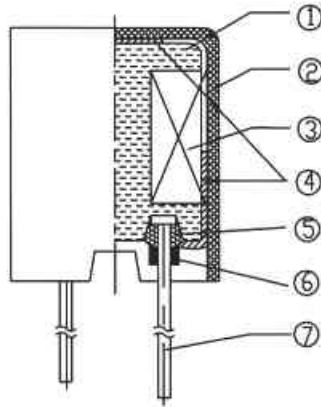
IF THERE IS ANY DOUBT ABOUT THE RESULTS, MEASUREMENT SHALL BE MADE WITHIN THE FOLLOWING LIMITS:

AMBIENT TEMPERATURE: 20°C±1°C. RELATIVE HUMIDITY : 63% TO 67%. AIR PRESSURE : 86kPa TO 106kPa.

No.	ITEMS	CONDITIONS	SPECIFICATION
1	OPERATION TEMPERATURE STORAGE TEMPERATURE		-25 ~ +85°C (INCLUDING COIL TEMPERATURE RISE) -40 ~ +85°C
2	LEAD TERMINAL STRENGTH	A STATIC PULLING FORCE OF 5N IN A DIRECTION PARALLEL TO THE LEAD TERMINALS FOR 60±5 SECONDS.	NO TERMINAL BREAKAGE OR LOSSENING
3	DIELECTRIC STRENGTH	D.C.100V IS APPLIED BETWEEN WINDING-CASE	NO DIELECTRIC DAMAGE
4	RESISTANCE TO SOLDERING HEAT TEST	FIX THE SAMPLES ON A 1.6mm THICKNESS PCB, THEN DIP THE SAMPLE LEADS UP TO THE PCB INTO A SOLDERING BATH OF 260±5°C FOR 5±1 SECONDS.	NO MECHANICAL BREAKAGE. DEVIATION RELATIVE TO INITIAL VALUE: L: WITHIN ±3.0% Q: WITHIN ±20%
5	SOLDERABILITY TEST	IMMERSE THE TERMINAL IN FLUX FOR 5 SECONDS. THEN DIP THE TERMINAL INTO A SOLDERING BATH OF 245±5°C FOR 2±0.5 SECONDS.	OVER 90% OF THE SURFACE BEING IMMERSERD SHALL BE COVERED WITH A NEW UNIFORM SOLDER.
6	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:
7	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)	L: WITHIN ±1.0% Q: WITHIN ±20%
8	HUMIDITY TEST	TEMPERATURE: 40°C±2°C HUMIDITY: 90%~95% RH DURATION: 96±4 HOURS.	DEVIATION RELATIVE TO INITIAL VALUE: L: WITHIN ±3.0% Q: WITHIN ±20%

REMARK	SPEC. No. 4/5 H500-0548
--------	-----------------------------------

5. CONSTRUCTION:



No.	PARTS	MATERIAL	MANUFACTURER	COUNTRY OF ORIGIN	UL No.	UL FLAME CLASS	TEMP. CLASS
①	CORE	FERRITE CORE EL9H OR EQUIVALENT	ZHONGSHAN TONICHI FERRITE PRODUCTS CO., LTD	CHINA	NA	NA	NA
②	CASE	PA66 OR EQUIVALENT	ASAHI KASEI CHEMICALS CORP. CO., LTD.	JAPAN	E48285	94V-2	105°C
③	WIRE	POLYURETHANE ENAMELLED COPPER WIR OR EQUIVALENT	PACIFIC-THAI ELECTRIC WIRE & CABLE CO., LTD.	THAILAND	E142108	NA	130°C
			JUNG SHING WIRE CO., LTD.	CHINA TAIWAN	E174837	NA	130°C
			TA YA ELECTRIC WIRE FACTORY	CHINA	E197768	NA	130°C
④	ADHESIVE	EPOXY RESIN(6068) OR EQUIVALENT	GUANG ZHOU WELLS CHEMICAL CO., LTD.	CHINA	NA	NA	NA
⑤	ADHESIVE	EPOXY RESIN (EB360) OR EQUIVALENT	JIANG SU CHANG FENG CO., LTD.	CHINA	NA	NA	NA
⑥	SOLDER	Sn99.3-Cu0.7 OR EQUIVALENT	ALPHA METALS LTD.	CHINA HONG KONG	NA	NA	NA
⑦	LEAD PIN	H.C.P OR EQUIVALENT	WELL FORE SPECIAL WIRE CORPORATION	CHINA	NA	NA	NA

6. PACKAGE

PACKAGE TO BE ACCORDING TO SPECIFICATION. (TICK THE RELEVANT “✓ ”)

- KB-PAT029 KB-PAT631
- KB-PAT030 KB-PAT632
- SPECIAL FOR CUSTOMER KB _____

7. RoHS COMPLIANCE REMARKS

*LEAD WILL BE PRESENT IN THE FERRITE CORE OF THE FRIT MATRIX IN THE COMPONENT. THIS USE, IS EXEMPT FROM RoHS LEGISLATION PER THE ANNEX (ITEM 7), WHICH REFERS TO “LEAD IN ELECTRONIC CERAMIC PART”.

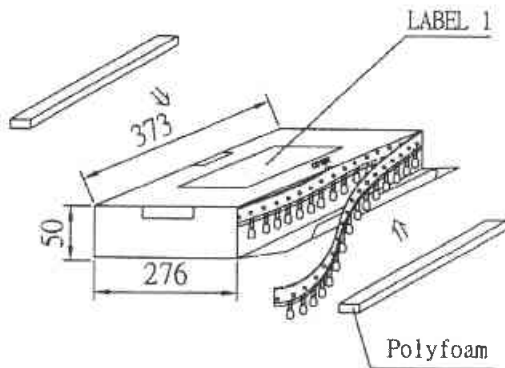
REMARK	SPEC. No. 5/5
	H500-0548

* PACKAGE SPECIFICATION *

APPLICABLE TYPE: C2KC, TPDG, TWKC

Dimensions (Ref.) : mm

1. 500 Pcs/Box



LABEL 1

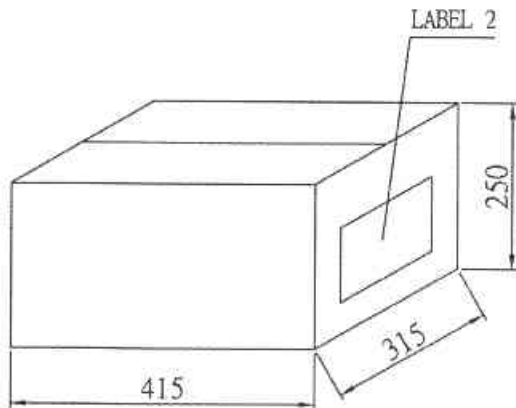
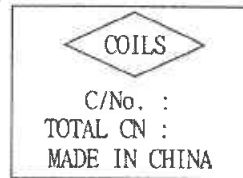
COILS ELECTRONIC CO., LTD.	
CUSTOMER	
PART No.	
COILS No.	
LOT No.	
QUANTITY	
INSPECTED BY	

2. Carton

4 Boxes/Carton Total 2,000 Pcs

LABEL 2

* UNLESS OTHERWISE STATED (IN COIL SPEC.) THE LABEL 2 SHALL BE ACCORDING TO CEC STANDARD SHOWN BELOW.



LABEL 3

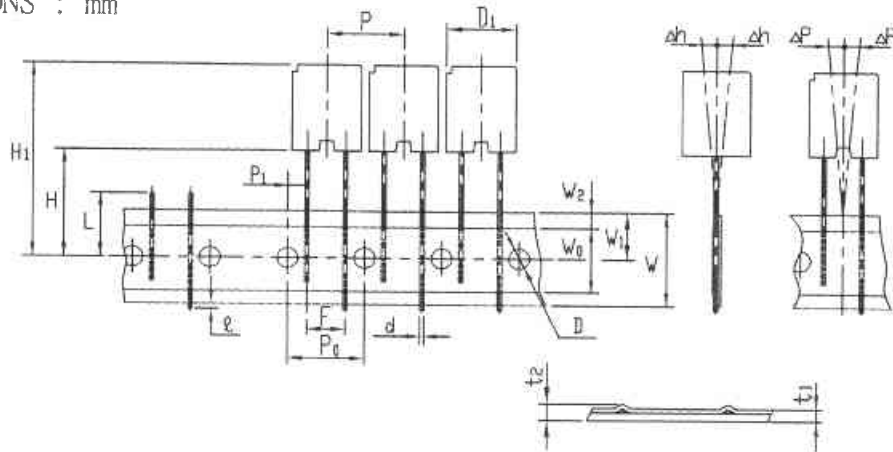
LOT NO.	
COILS P/N:	
P/O#:	
Cust. P/N:	
QTY:	
DATE:	

MADE: 30th. Jul., 2001			REVISION	PACKAGE SPEC.No. 1/2
APPROVAL	CHECK	DESIGN		KB-PAT029

* PACKAGE SPECIFICATION *

APPLICABLE TYPE: C2KC, TPDG, TWKC

DIMENSIONS : mm



ITEM	SYMBOL	DIMENSIONS(mm)
Distance between the abscissa and the top of the component body	H 1	37.5max.
Distance between the abscissa and the bottom plane of the component body	H	18.0 $\begin{smallmatrix} +2.0 \\ 0 \end{smallmatrix}$
Component spacing	P	15.0±1.0
Pitch of the sprocket holes	P 0	15.0±0.3
Distance between centers of terminal and sprocket hole	P 1	3.75±0.7
Distance between centers of component leads	F	7.5±0.5
Carrier tape width	W	18.0 $\begin{smallmatrix} +1.0 \\ -0.5 \end{smallmatrix}$
Hold down tape width	W 0	12.5 min.
Distance between the center of upper edge of carrier tape and sprocket hole	W 1	9.0±0.5
Distance between the upper edges of the carrier tape and the hold down tape	W 2	3.0 max.
Diameter of sprocket holes	D	∅4.0±0.2
Total thickness of the combined carrier tape and hold down tape	t 1	0.6±0.3
	t 2	1.7 max.
Body diameter	D 1	14.0 max.
Maximum lateral deviation of the component body vertical to the tape plane	Δh	0±2.0
Cut off position of defectives	L	11.0 max.
Lead diameters	d	∅0.8±0.1
Protrusion of lead beyond carrier tape	ℓ	1.0 max.
Maximum full-face deviation of the component body vertical to the tape plane	ΔP	1.3 max.

MADE: 30th. Jul., 2001			REVISION	PACKAGE SPEC.No. 2/2
APPROVAL	CHECK	DESIGN	KB-PAT029	