

S P E C I F I C A T I O N

APPLICATION FOR APPROVAL OF

ITEM : RADIAL INDUCTOR
DESCRIPTION : DR 4 × 5.5mm
CODE NO : DR1)47uH(BULK TAPING)
MODEL NO :

This space is used for customer's approval

DATE : 2008. 06. 04.

DRAWN BY M . Y . JEON	DATA 2008. 06. 04.
CHECKED BY	DATA
APPROVED BY J . G . KIM	DATA 2008. 06. 04.

CUSTOMER :

SPECIFICATION		SHEET NO.	1 OF 9
		DATA	2008. 06. 04.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR1) 47uH-T.B	DESCRIPTION	DR 4 X 5.5mm

1. GENERAL SPECIFICATION

1) SCOPE

This specification applies to part number 47uH **RADIAL INDUCTOR (or PEAKING COIL)** for use in electronic appliances which is supplied for

2. MECHANICAL CHARACTERISTIC

PEAKING COIL shall conform in size, dimension, and other mechanical properties, to the part drawing attached here to.

1) Marking

PEAKING COIL shall be permanently and legibly marked with the part number on the specification position.

2) Terminal strength

Terminal shall withstand for 30 seconds without breakdown on losing when a static load of 2 Kg is applied in the drawing direction to the terminal at the point where the external load.

3. ENVIRONMENTAL & LIFE CHARACTERISTIC

1) Temperature rise

Temperature rise of the each winding and core shall be less than ambient + 65°C , when the **PEAKING COIL** continuously operated at full load(test load) until constant temperature is attained.

2) Heat-resistance

Immediately after **PEAKING COIL** being placed in room for 96 Hours maintained AT 105°C ± 2°C ambient temperature, the **PEAKING COIL** shall conform with the above part paragraph (4) and also insulation resistance shall be more than 100 MΩ.

3) Moisture resistance

Immediately after **PEAKING COIL** being placed in room for 120 Hours in such humidity chamber this is maintained at 90 - 95% relative humidity and 55°C ± 2°C temperature and wiped a drop of water, **PEAKING COIL** shall conform with the above paragraph(4) and also insulation shall be the 10 MΩ.

4) Safety consideration

PEAKING COIL shall meet all the requirements subject to IEC-950 standards for safety of information technology equipment including electrical business equipment.

5) Solderability

Dip pads in RMA flux, 96.5/0.5/3 solder (Sn/Cu/Ag)at 260°C for 5±2 seconds

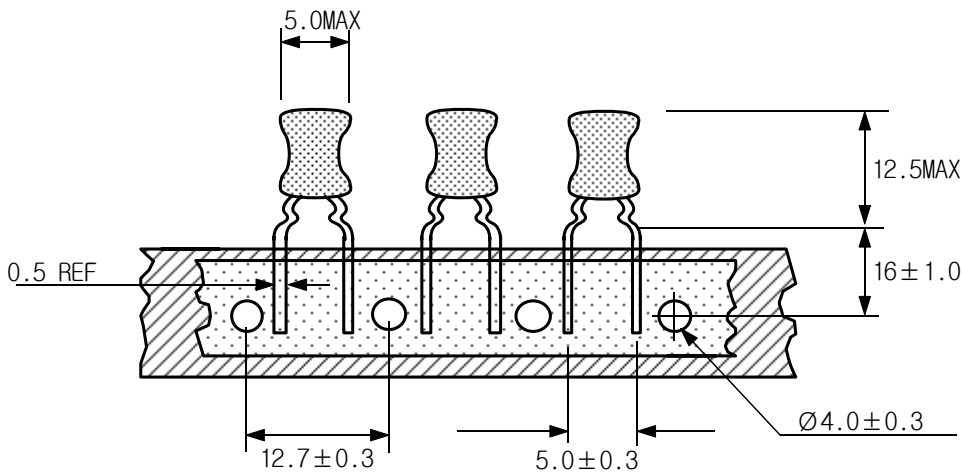
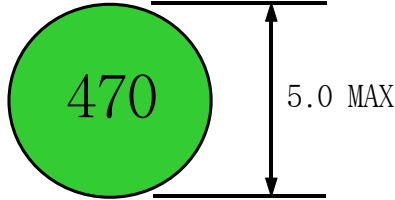
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CUSTOMER :

4. APPEARANCE & DIMENSION (UNIT:m/m)		SHEET NO.	2 OF 9
SPECIFICATION		D A T E	2008. 6. 4.
		MODEL NAME	
PART NAME	Radial Inductor	DESCRIPTION	DR 4 × 5.5mm
PART NO.	DR1-47uH-T.B		

1. APPEARANCE & DIMENSION (UNIT:m/m)

MARKING: 470K or 470



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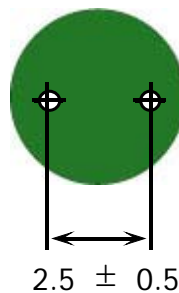
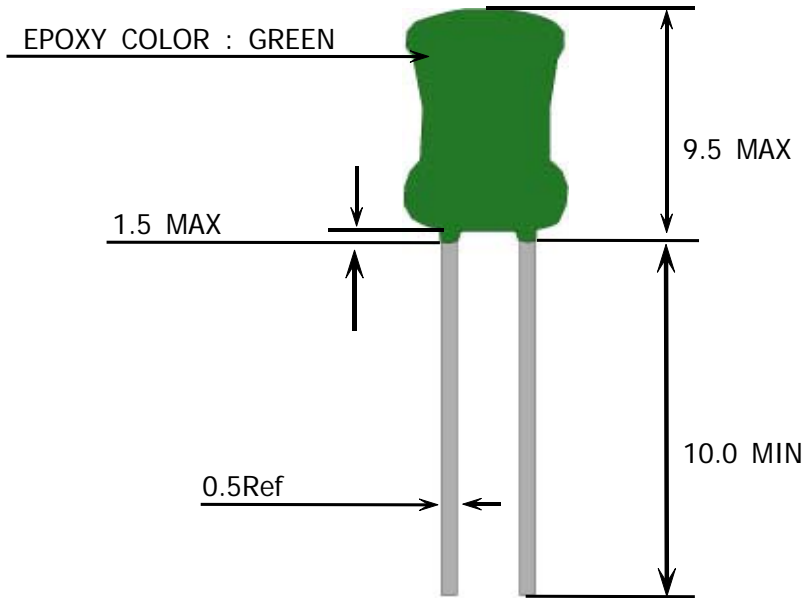
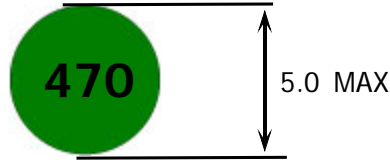


CUSTOMER :

SPECIFICATION		SHEET NO.	3 OF 9
		DATA	2008. 06. 04.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR1) 47uH-T.B	DESCRIPTION	DR 4 X 5.5mm

4. APPEARANCE & DIMENSION (UNIT:m/m)

Marking : 470K or 470



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CUSTOMER :

SPECIFICATION		SHEET NO.	4 OF 9
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PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR1) 47uH-T.B	DESCRIPTION	DR 4 X 5.5mm

5. WINDING SPEC

START & FINISH	TYPE OF WIRE	T U R N S	WINDING METHODE
	2UEW 0.16Φ	47.5_Ts REF	SOLENOID WINDING [C . C . W]

6. ELECTRICAL CHARACTERISTIC

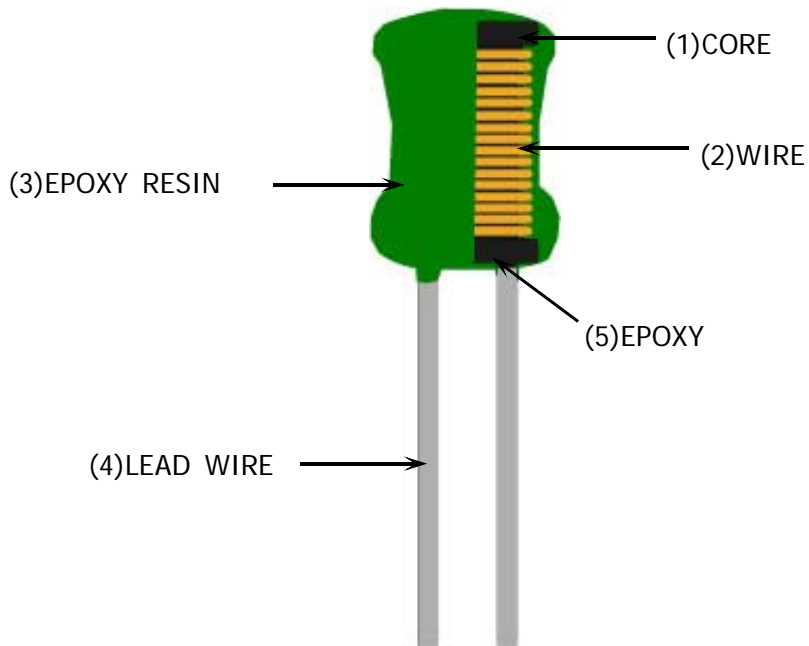
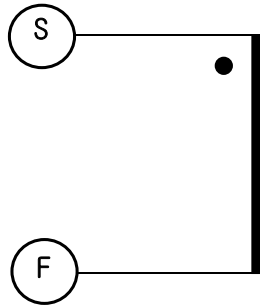
NO	I T E M	MESURE	SPECIFICATION	REMARKS
1	INDUCTANCE	START & FINISH	47 [uH] ± 10 [%]	HIOKI3522 LCR METER at 1kHz 1V
2	DC RESISTANCE	START & FINISH	0.5 [Ω] MAX	WHEATSTONE BRIDGE TYPE 2755
3	DIELECTRIC WITHSTANDING TEST	COIL & CORE	AC _1 [KV] , FREQUANCY _60 [Hz] , _1 MINUTES, CUT OFF CURENT _2 [mA]	NO BREAKDOWN HPT-5010
4	INSULATION RESISTANCE	COIL & CORE	DC _500 [V] , _100 [MΩ] MIN	DM-500AD

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SPECIFICATION		SHEET NO.	5 OF 9
		DATA	2008. 06. 04.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR1) 47uH-T.B	DESCRIPTION	DR 4 X 5.5mm

7. SCHEMATIC DIAGRAM



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CUSTOMER :

<h1>SPECIFICATION</h1>		SHEET NO.	6 OF 9
		DATA	2008. 06. 04.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR1) 47uH-T.B	DESCRIPTION	DR 4 X 5.5mm

8. MATERIAL LIST

NO	ITEM	MATERIAL & DIMENSION	MANUFACTURE	REMARK
1	CORE	SGB / DGB / JA3 DR 4 X 5.5mm	JAW SHIANQ CORPORATION CO.,LTD. ZHAOYUAN FLYING ELECTRONIC CO.,LTD. JIACI(ZHUHAI)ELECTRONICS CO.,LTD.	
2	WIRE	2UEW 0.16Φ	DONG YANG ELECTRONICS CO., LTD. CHUNHUI ELECTRICAL APPLANCES CO.,LTD. GUANDONG RONSEN SUPER MICRO-WIRE CO.,LTD	E102761S E198440 E164502
3	EPOXY RESIN	DP-402NH-P 930A.B(GREEN)	DAE JOO FINE CHEMICAL CO., LTD. SAM SIN CHEMICAL CO.,LTD.	
4	LEAD WIRE	TPC 0.5Φ TPCS 0.5Φ COPPER-WIRE	SAMATRON CO.,LTD IL-KWANG ELECTRONIC MATERIALS CO.,LTD. YEHUA ELECTRON MATERIAL LIMITED CO.,LTD.	
5	EPOXY	6020H	GUANGZHOU WELLS CHEMICAL CO.,LTD.	
-	SOLDER BAR	LEAD FREE SOLDER	HEESUNG MATERIAL LTD. JIAMENG CO.,LTD. JINTAE CO.,LTD.	
-	FLUX	F181 SF-A-2	ZHUHAI FRIEND INDUSTRIAL CO.,LTD. SOLUX CO.,LTD.	
-	INK	270BK	DOMINO KOREA CO.,LTD.	

9. TABLE OF STANDARD CHARACTERISTICS OF MATERIALS

PROPERTY UNIT MATERIAL	μ_{ic} ±25%	Bms GAUSS	WORKING Frequency(MHZ)	Tc ℃	ρ Ω-cm	d g/cm ³	TANσ/μi 10 ⁻⁶ (MHZ)	αμr 10 ⁻⁶
SGB	300	3300	0.1~2.0	150	10 ⁷	4.7 ~ 4.9	15(0.1) 80(2)	25

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SPECIFICATION		SHEET NO.	7 OF 9
		DATA	2008. 06. 04.
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10. REMARK-1

DONG YANG [UL CARD]

DONG YANG ELECTRONICS IND CO LTD				E102761 (S)	
660-1 BANWOL-RI TAIAN-EWB HWASUNG-GUN, KYUNGGI-DO KOREA					
Mtl Dsg	BC	Cost typ	OC	ANSI Type	TI
AI-EIW	Polyesterimide		Polyamideimide	MW35	200
EIW	Polyesterimide			MW30	180
NY-EIW	Polyester- amide-imide		Polyamide	MW96	180
NY-PEW	Polyester		Polyamide	MW24	155
NY-PEW(F)	Polyester		Polyamide	MW24	155
NY-UEW	Polyurethane		Polyamide	MW23	130
UEW	Polyurethane		-	MW75	130

Marking: Company name or "E102761" and material designation or marked designation on package or reel, and recognized Component Mark.

CHUN HUI [UL CARD]

OBMW2		July 19, 2002			
(Systems, Electrical Insulation) Magnet Wire - Component					
GUANGZHOU CHUNHUI ELECTRICAL APPLIANCES CO LTD					E198420
BLK 7, 8TH FL, ROOM H JIANADA GARDEN ZHONGSHAN DA DAO, GUANGZHOU GUANGDONG CHINA					
Mtl Dsg	Mark Dsg	Cost Type	OC	ANSI Type	Temp Class
XUEW-UL0	(1)	Polyurethane	-	MW75	130

(1)-Marked designations are the same as the material designations.
 @-X may be replaced by a 0, 1 or 2.
 Marking: Company name, material designation or marked designation on package or reel, and Recognized Component Mark.

See General Information Preceding These Recognitions
 For use only in equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

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CUSTOMER :

<h1>SPECIFICATION</h1>		SHEET NO.	8 OF 9
		DATA	2008. 06. 04.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR1) 47uH-T.B	DESCRIPTION	DR 4 X 5.5mm

10. REMARK-2

RONSEN [UL CARD]

OBMW2. E164502

Magnet Wire - Component

No. :E164502


GUANGDONG RONSEN SUPER MICRO-WIRE CO LTD
SANZAO TECHNOLOGICAL INDUSTRY PARK, AIRPORT WEST RD.
ZHUHAI, GUANGDONG 519000 CHINA

Mtl Dsg	Mark Dsg	Coat Type		ANSI Type	Temp Class
		BC	OC		
BIW	PBW	Modified Polyester	—	MW74-C	200
				MW30-C	180#
UEW/130	PUB	Polyurethane	—	MW75-C	130#
UEW/155	PUP	Polyurethane	—	MW79-C	155
UEW-Y	PUY	Polyurethane	Polyamide	MW80-C	155
				MW28-C	130#
S-BIW	PSE	Polyester-imide	—	MW77-C	180
UEW/180	PUH	Polyurethane	—	MW82-C	180
X UEW/180 (QA/180)		Polyurethane	—	MW82C	180
X UEW/155 (QA/155)		Polyurethane	—	MW79C#	155
X UEW/130 (QA/130)		Polyurethane	—	MW75C#	130
X UEW/200 (QA/200)		Polyurethane	—	@	200
X UEW/180-U (QA/180-U)		Polyurethane	—	MW82C#	180

- This wire may perform better than its temperature rating reflects. Hence, it may not be suitable to use in an insulation system thermal aging program.

@ - Non-ANSI type.

X - indicates one-digit number to denote film thickness.

Marking: Company name or trademark , material designation or marked designation and marked UL

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SPECIFICATION		SHEET NO.	9 OF 9
		DATA	2008. 06. 04.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR1) 47uH-T.B	DESCRIPTION	DR 4 X 5.5mm

11. INSPECTION DATA

NO	INDUCTANCE	DC RESISTANCE	내전압	절연저항
SPEC	47uH ± 10%	0.5Ω MAX	AC 1KV 1분 MIN	DC 500V 100MΩMIN
1	48.68	0.032	OK	OK
2	46.74	0.032	OK	OK
3	47.76	0.033	OK	OK
4	46.56	0.033	OK	OK
5	46.67	0.033	OK	OK
6	46.58	0.032	OK	OK
7	48.12	0.033	OK	OK
8	47.94	0.032	OK	OK
9	46.72	0.033	OK	OK
10	48.27	0.033	OK	OK
\bar{X}	47.404	0.0326		
MIN	46.56	0.032		
MAX	48.68	0.033		

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