

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

## APPLICATION FOR APPROVAL OF

- ITEM : RADIAL INDUCTOR ■
- DESCRIPTION : DR 4 X 5.5mm ■
- CODE NO : DR1) 1uH (Taping & Bulk) ■
- MODEL NO : ■

This space is used for customer's approval

■ DATE : 2008. 06. 30. ■

DRAWN BY M . Y . JEON	DATA 2008. 06. 30.
CHECKED BY	DATA
APPROVED BY J . G . KIM	DATA 2008. 06. 30.

CUSTOMER :

<b>SPECIFICATION</b>		SHEET NO.	1 OF 9
		DATA	2008. 06. 30.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR1-1uH-T.B	DESCRIPTION	DR 4 X 5.5mm

1. GENERAL SPECIFICATION

1) SCOPE

This specification applies to part number 1uH **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 :

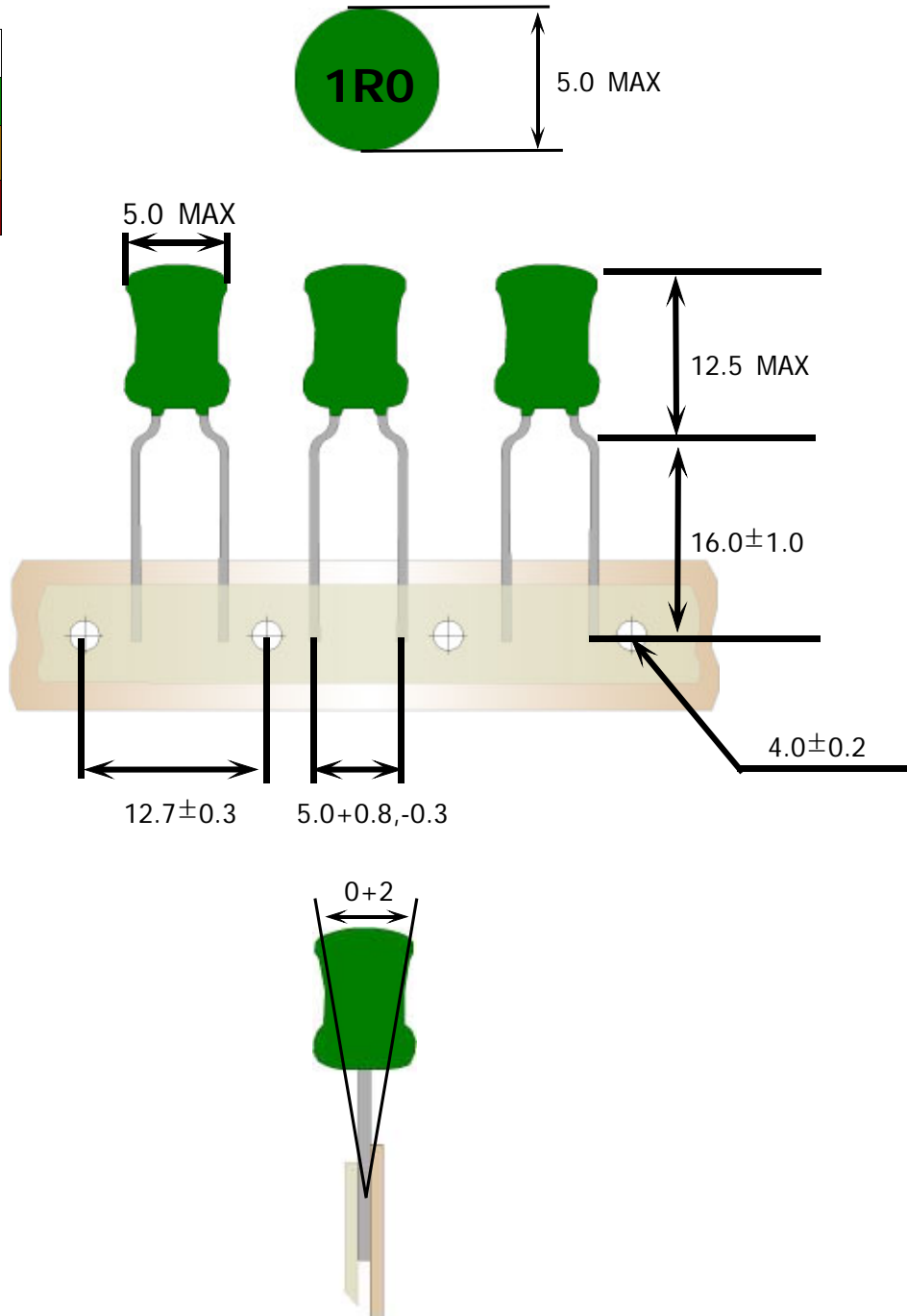
<b>SPECIFICATION</b>		SHEET NO.	2 OF 9
		DATA	2008. 06. 30.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR1-1uH-T,B	DESCRIPTION	DR 4 X 5.5mm

4-1. APPEARANCE & DIMENSION (UNIT:m/m)

MARKING:1R0 or 1R0K

**\* TAPING TYPE**

EPOXY COLOR
GREEN
BROWN
RED



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CUSTOMER :

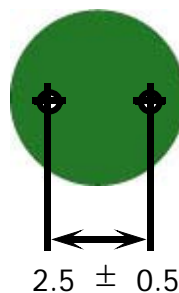
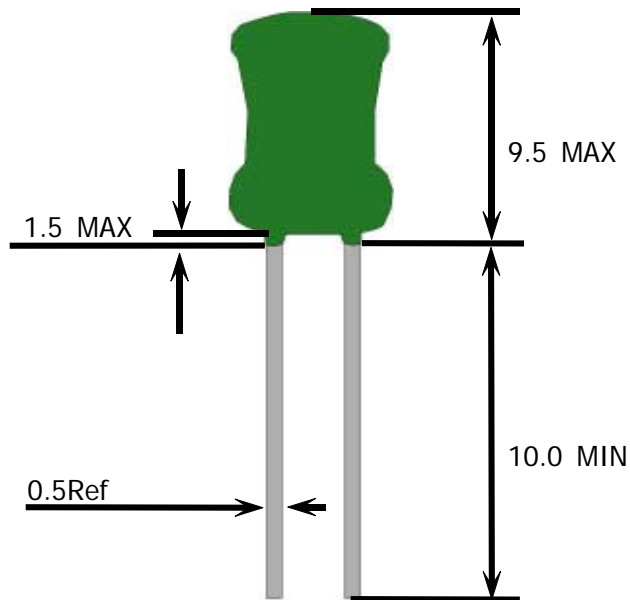
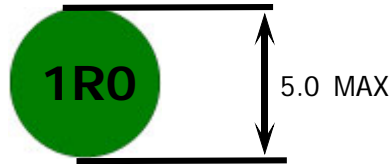
<b>SPECIFICATION</b>		SHEET NO.	2 OF 9
		DATA	2008. 06. 30.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR1-1uH-T,B	DESCRIPTION	DR 4 X 5.5mm

4-2. APPEARANCE & DIMENSION (UNIT:m/m)

\* **BULK TYPE**

MARIING: 1R0 or 1R0K

EPOXY COLOR
GREEN
BROWN
RED



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CUSTOMER :

<b>SPECIFICATION</b>		SHEET NO.	3 OF 9
		DATA	2008. 06. 30.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR1-1uH-T.B	DESCRIPTION	DR 4 X 5.5mm

5. WINDING SPEC

START & FINISH	TYPE OF WIRE	T U R N S	WINDING METHODE
	2UEW 0.35Φ	7.5_Ts REF	SOLENOID WINDING [C . C . W]

6. ELECTRICAL CHARACTERISTIC

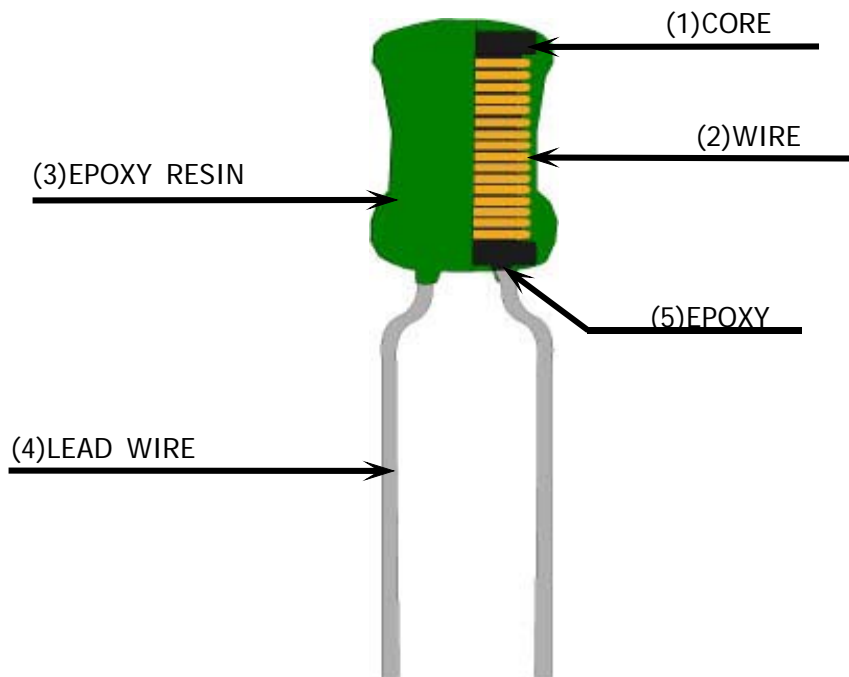
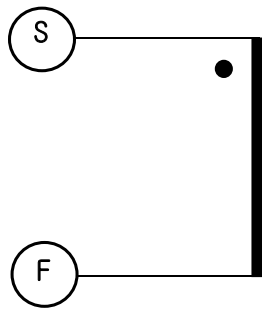
NO	I T E M	MESURE	SPECIFICATION	REMARKS
1	INDUCTANCE	START & FINISH	1.0 [uH] ± 10%	HIOKI3522 LCR METER at 1kHz 1V
2	DC RESISTANCE	START & FINISH	0.02 [Ω] MAX	WHEATSTONE BRIDGE TYPE 2755
3	DIELECTRIC WITHSTANDING TEST	COIL & CORE	AC 1 [KV] , FREQUANCY 60 [Hz] , 1 MINUTES, CUT OFF CURENT 2 [mA]	NO BREAKDOWN HPT-5010
4	INSULATION RESISTANCE	COIL & CORE	DC 500 [V] , 100 [MΩ] MIN	DM-500AD

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PART NO.	DR1-1uH-T,B	DESCRIPTION	DR 4 X 5.5mm

7. SCHEMATIC DIAGRAM



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<b>SPECIFICATION</b>		SHEET NO.	5 OF 9
		DATA	2008. 06. 30.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR1-1uH-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 0.35Φ	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/BROWN/RED	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	HSE-09 SN 100 SNCU 0.7	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	$\mu_{ic}$ ±25%	Bms GAUSS	WORKING Frequency(MHZ)	Tc ℃	$\rho$ $\Omega$ -cm	d g/cm <sup>3</sup>	TAN $\sigma$ / $\mu$ i 10 <sup>-6</sup> (MHZ)	$\alpha_{\mu r}$ 10 <sup>-6</sup>
SGB	300	3300	0.1~2.0	150	10 <sup>7</sup>	4.7 ~ 4.9	15(0.1) 80(2)	25

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<b>SPECIFICATION</b>		SHEET NO.	6 OF 9
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PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR1-1uH-T,B	DESCRIPTION	DR 4 X 5.5mm

10. REMARK-1 / DONG YANG [UL CARD]

Magnet Wire - Component

See General Information for Magnet Wire - Component

**DONG YANG ELECTRONICS IND CO LTD**

E102761

5-20 BANGYE-RI

MUNMAK-EUB

WONJU-SHI, KANGWON-DO 220-800 REPUBLIC OF KOREA

Mtl Dsg	Coat Typ		ANSI Type	TI
	BC	OC		
AI-EIW	Polyester- imide	Polyamide- imide	MW35	200
DSB-EIA	Ester-imide	Polyamide	MW76	180
DSB-EIA(S)	Solderable ester-imide	Polyamide	MW78	180
EIW	Polyester- imide		MW30	180
NY-EIW	Polyester- amide-imide	Polyamide	MW76	180
NY-PEW	Polyester	Polyamide	MW24	155
NY-PEW(F)	Polyester	Polyamide	MW24	155
NY-UEW	Polyurethane	Polyamide	MW80, MW28#	155, 130
UEW(F)	Polyurethane	—	MW79,	155,

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PART NO.	DR1-1uH-T.B	DESCRIPTION	DR 4 X 5.5mm

10. REMARK-2 / CHUN HUI [UL CARD]

Magnet Wire - Component					
<u>See General Information for Magnet Wire - Component</u>					
<b>GUANGZHOU CHUNHUI ELECTRICAL APPLIANCES CO LTD</b>					<b>E198440</b>
BLK 7, 8TH FL, ROOM H JIANADA GARDEN ZHONGSHAN DA DAO GUANGZHOU, GUANGDONG 510665 CHINA					
Mtl Dsg	Mark Dsg	Coat Type		ANSI Type	Temp Class
		BC	OC		
XUEW-UL@	(1)	Polyurethane	?/TD>	MW75	130
(1)-Marked designations are the same as the material designations.					

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<h1>SPECIFICATION</h1>		SHEET NO.	8 OF 9
		DATA	2008. 06. 30.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR1-1uH-T.B	DESCRIPTION	DR 4 X 5.5mm

10. REMARK-3 / RONSEN [UL CARD]

Magnet Wire - Component

See General Information for Magnet Wire - Component

**GUANGDONG RONSEN SUPER** E164502  
MICRO-WIRE CO LTD  
SANZAO TECHNOLOGICAL INDUSTRY PARK  
AIRPORT WEST RD  
ZHUHAI, GUANGDONG 519000 CHINA

Mtl Dsg	Mark Dsg	Coat Typ		ANSI Type	Temp Class
		BC	OC		
EIW	PEW	Modified Polyester	—	MW74-C	200
				MW30-C	180#
UEW/130	PUB	Polyurethane	—	MW75-C	130#
UEW/155	PUF	Polyurethane	—	MW79-C	155
UEW-Y	PUY	Polyurethane	Polyamide	MW80-C	155
				MW28-C	130#
S-EIW	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

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		DATA	2008. 06. 30.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR1-1uH-T.B	DESCRIPTION	DR 4 X 5.5mm

11. INSPECTION DATA

NO	INDUCTANCE	DC RESISTANCE	내전압	절연저항
SPEC	1uH ± 10%	0.02Ω MAX	AC 1KV 1분 MIN	DC 500V 100MΩMIN
1	1.11	0.015	OK	OK
2	1.15	0.015	OK	OK
3	1.14	0.015	OK	OK
4	1.11	0.016	OK	OK
5	1.16	0.015	OK	OK
6	1.15	0.016	OK	OK
7	1.16	0.016	OK	OK
8	1.15	0.015	OK	OK
9	1.11	0.016	OK	OK
10	1.13	0.015	OK	OK
$\bar{X}$	1.137	0.0154		
MIN	1.11	0.015		
MAX	1.16	0.016		

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