

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

## APPLICATION FOR APPROVAL OF

- ITEM : RADIAL INDUCTOR ■
- DESCRIPTION : DR 6.5 X 7.5mm ■
- CODE NO : DR2) 680uH(BULK & TAPPING) ■
- MODEL NO : ■

This space is used for customer's approval

■ DATE : 2008. 07. 23. ■

DRAWN BY M . Y . JEON	DATA 2008. 07. 23.
CHECKED BY	DATA
APPROVED BY J . G . KIM	DATA 2008. 07. 23.

CUSTOMER :

<b>SPECIFICATION</b>		SHEET NO.	1 OF 10			
		DATA	2008. 07. 23.			
PART NAME	RADIAL INDUCTOR	MODEL NAME				
PART NO.	DR2-680uH-T.B	DESCRIPTION	DR 6.5 X 7.5mm			
<p>1. GENERAL SPECIFICATION</p> <p>1) SCOPE</p> <p>This specification applies to part number <u>680uH</u> <b>RADIAL INDUCTOR (or PEAKING COIL)</b> for use in electronic appliances which is supplied for</p> <p>2. MECHANICAL CHARACTERISTIC</p> <p><b>PEAKING COIL</b> shall conform in size, dimension, and other mechanical properties, to the part drawing attached here to.</p> <p>1) Marking</p> <p><b>PEAKING COIL</b> shall be permanently and legibly marked with the part number on the specification position.</p> <p>2) Terminal strength</p> <p>Terminal shall withstand for <u>30</u> seconds without breakdown on losing when a static load of <u>2</u> Kg is applied in the drawing direction to the terminal at the point where the external load.</p> <p>3. ENVIRONMENTAL &amp; LIFE CHARACTERISTIC</p> <p>1) Temperature rise</p> <p>Temperature rise of the each winding and core shall be less than <u>ambient + 65°C</u> , when the <b>PEAKING COIL</b> continuously operated at full load(test load) until constant temperature is attained.</p> <p>2) Heat-resistance</p> <p>Immediately after <b>PEAKING COIL</b> being placed in room for <u>96</u> Hours maintained AT <u>105°C ± 2°C</u> ambient temperature, the <b>PEAKING COIL</b> shall conform with the above part paragraph (4) and also insulation resistance shall be more than <u>100</u> MΩ.</p> <p>3) Moisture resistance</p> <p>Immediately after <b>PEAKING COIL</b> being placed in room for <u>120</u> Hours in such humidity chamber this is maintained at <u>90 - 95%</u> relative humidity and <u>55°C ± 2°C</u> temperature and wiped a drop of water, <b>PEAKING COIL</b> shall conform with the above paragraph(4) and also insulation shall be the <u>10</u> MΩ.</p> <p>4) Safety consideration</p> <p><b>PEAKING COIL</b> shall meet all the requirements subject to <u>IEC-950</u> standards for safety of information technology equipment including electrical business equipment.</p> <p>5) Solderability</p> <p>Dip pads in RMA flux, 96.5/0.5/3 solder (Sn/Cu/Ag)at 260°C for 5±2 seconds</p>						
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CUSTOMER :

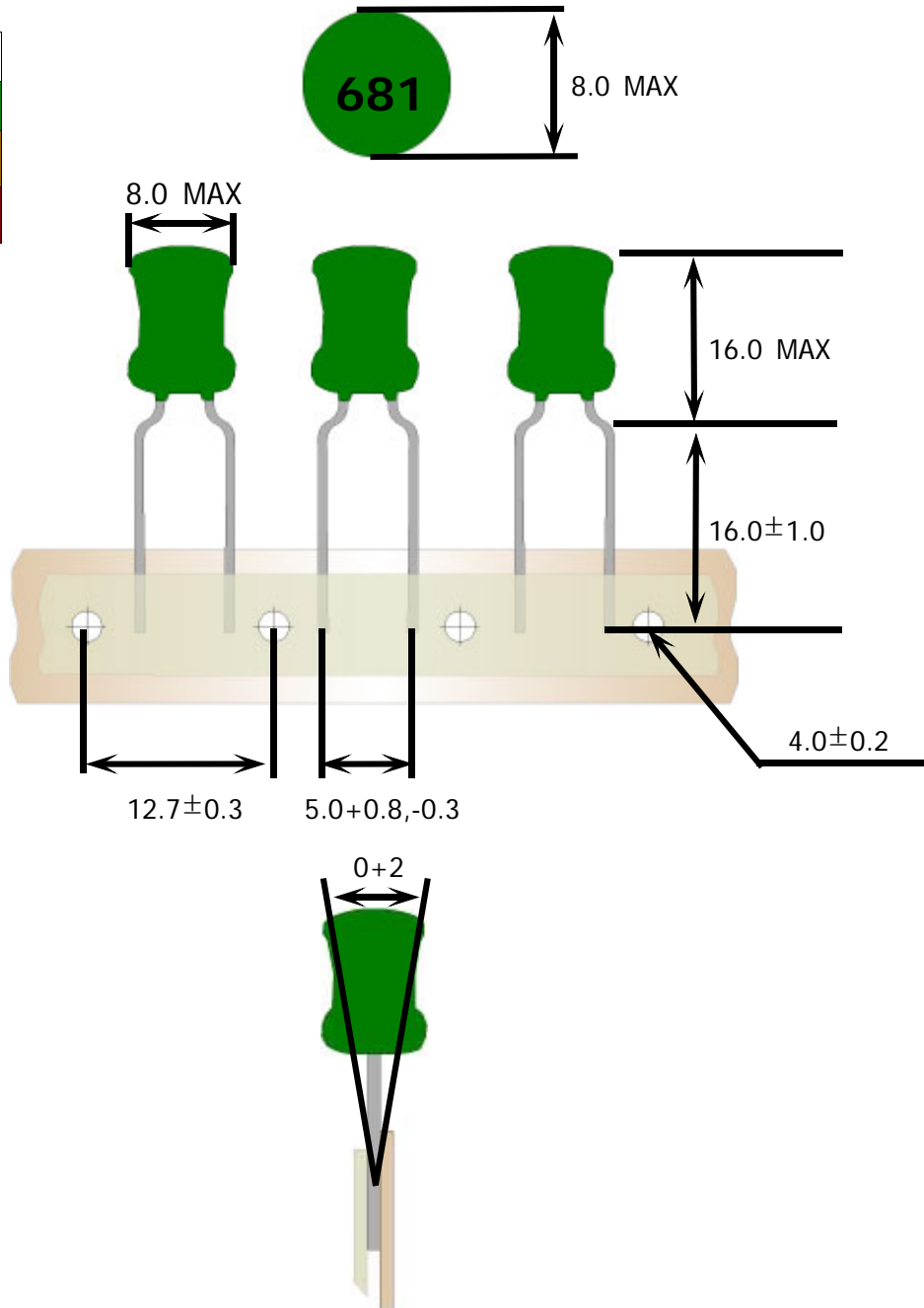
<b>SPECIFICATION</b>		SHEET NO.	2 OF 10
		DATA	2008. 07. 23.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR2-680uH-T.B	DESCRIPTION	DR 6.5 X 7.5mm

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

MARKING : 681K or 681

**\* TAPING TYPE**

EPOXY COLOR
GREEN
BROWN
RED



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CUSTOMER :

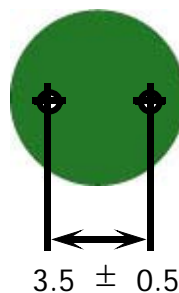
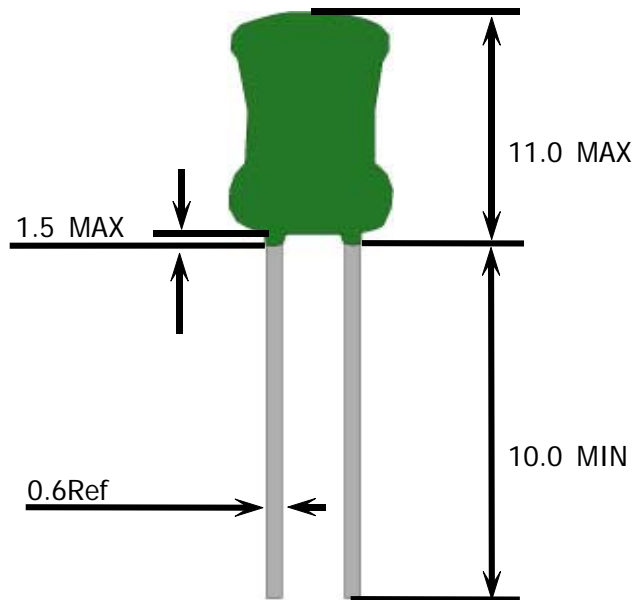
<b>SPECIFICATION</b>		SHEET NO.	3 OF 10
		DATA	2008. 07. 23.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR2-680uH-T.B	DESCRIPTION	DR 6.5 X 7.5mm

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

MARKING : 681K or 681

\* BULK TYPE

EPOXY COLOR
GREEN
BROWN
RED



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CUSTOMER :

<b>SPECIFICATION</b>		SHEET NO.	4 OF 10
		DATA	2008. 07. 23.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR2-680uH-T.B	DESCRIPTION	DR 6.5 X 7.5mm

5. WINDING SPEC

START & FINISH	TYPE OF WIRE	T U R N S	WINDING METHODE
	2UEW 0.18Φ	151.5_Ts REF	SOLENOID WINDING [C . C . W]

6. ELECTRICAL CHARACTERISTIC

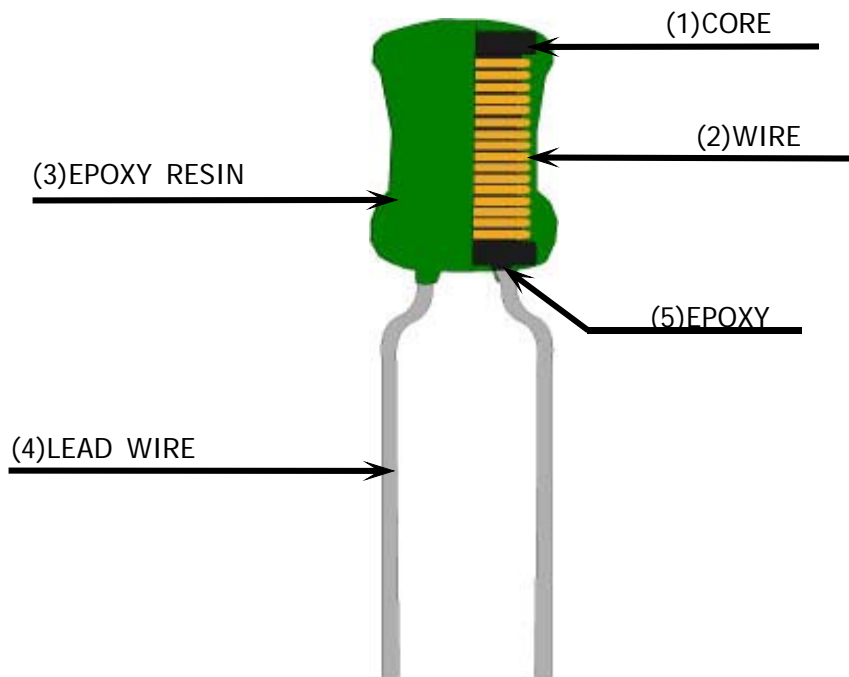
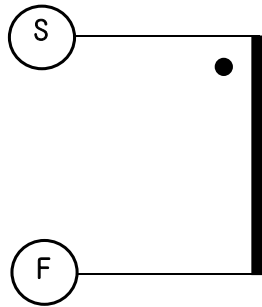
NO	I T E M	MESURE	SPECIFICATION	REMARKS
1	INDUCTANCE	START & FINISH	<u>680</u> [uH] ± 10 [%]	HIOKI3522 LCR METER at 1kHz 1V
2	DC RESISTANCE	START & FINISH	<u>2.0</u> [Ω] MAX	WHEATSTONE BRIDGE TYPE 2755
3	DIELECTRIC WITHSTANDING TEST	COIL & CORE	AC <u>1</u> [KV] , FREQUANCY <u>60</u> [Hz] , <u>1</u> MINUTES, CUT OFF CURENT <u>2</u> [mA]	NO BREAKDOWN HPT-5010
4	INSULATION RESISTANCE	COIL & CORE	DC <u>500</u> [V] , <u>100</u> [MΩ] MIN	DM-500AD

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<b>SPECIFICATION</b>		SHEET NO.	5 OF 10
		DATA	2008. 07. 23.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR2-680uH-T.B	DESCRIPTION	DR 6.5 X 7.5mm

7. SCHEMATIC DIAGRAM



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CUSTOMER :

<b>SPECIFICATION</b>		SHEET NO.	6 OF 10
		DATA	2008. 07. 23.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR2-680uH-T.B	DESCRIPTION	DR 6.5 X 7.5mm

8. MATERIAL LIST

NO	ITEM	MATERIAL & DIMENSION	MANUFACTURE	REMARK
1	CORE	SGB / DGB / JA3 DR 6.5 X 7.5mm	JAW SHIANQ CORPORATION CO.,LTD. ZHAOYUAN FLYING ELECTRONIC CO.,LTD. JIACI(ZHUHAI)ELECTRONICS CO.,LTD.	
2	WIRE	2UEW 0.18Φ	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 0.6Φ TPCS 0.6Φ 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 °C	$\rho$ Ω-cm	d g/cm <sup>3</sup>	TANσ/ $\mu_i$ 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	80(2) 15(0.1)	25

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<b>SPECIFICATION</b>		SHEET NO.	7 OF 10
		DATA	2008. 07. 23.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR2-680uH-T.B	DESCRIPTION	DR 6.5 X 7.5mm

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-	Polyamide-	MW35	200
	imide	imide		
DSB-EIA	Ester-imide	Polyamide	MW76	180
DSB-EIA(S)	Solderable	Polyamide	MW78	180
	ester-imide			
EIW	Polyester-		MW30	180
	imide			
NY-EIW	Polyester-	Polyamide	MW76	180
	amide-imide			
NY-PEW	Polyester	Polyamide	MW24	155
NY-PEW(F)	Polyester	Polyamide	MW24	155
NY-UEW	Polyurethane	Polyamide	MW80,	155,
			MW28#	130
UEW(F)	Polyurethane	—	MW79,	155,

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<b>SPECIFICATION</b>		SHEET NO.	8 OF 10
		DATA	2008. 07. 23.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR2-680uH-T.B	DESCRIPTION	DR 6.5 X 7.5mm

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

Magnet Wire - Component

See General Information for Magnet Wire - Component

**GUANGZHOU CHUNHUI ELECTRICAL APPLIANCES CO LTD** E198440  
 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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<b>SPECIFICATION</b>		SHEET NO.	9 OF 10
		DATA	2008. 07. 23.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR2-680uH-T.B	DESCRIPTION	DR 6.5 X 7.5mm

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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<b>SPECIFICATION</b>		SHEET NO.	10 OF 10
		DATA	2008. 07. 23.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR2-680uH-T.B	DESCRIPTION	DR 6.5 X 7.5mm

11. INSPECTION DATA

NO	INDUCTANCE	DC RESISTANCE	내전압	절연저항
SPEC	680uH±10%	2.0Ω MAX	AC 1KV 1분 MIN	DC 500V 100MΩMIN
1	678.49	1.4	OK	OK
2	671.89	1.4	OK	OK
3	677.98	1.4	OK	OK
4	684.04	1.5	OK	OK
5	675.78	1.5	OK	OK
6	678.2	1.4	OK	OK
7	684.12	1.5	OK	OK
8	681.55	1.4	OK	OK
9	674.16	1.5	OK	OK
10	677.58	1.4	OK	OK
$\bar{X}$	678.379	1.44		
MIN	671.79	1.4		
MAX	684.12	1.5		

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