

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) 3.9uH (Taping & Bulk) ■
- MODEL NO : ■

This space is used for customer's approval

■ DATE : 2010.05.20. ■

DRAWN BY M . Y . JEON	DATA 2010. 05. 20.
CHECKED BY	DATA
APPROVED BY J . G . KIM	DATA 2010. 05. 20.

CUSTOMER :

SPECIFICATION		SHEET NO.	1 OF 10
		DATA	2010. 05. 20.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR1-3.9uH-TAPING & BULK	DESCRIPTION	DR 4 X 5.5mm

1. GENERAL SPECIFICATION

1) SCOPE

This specification applies to part number 3.9uH **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 1Kg 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±4 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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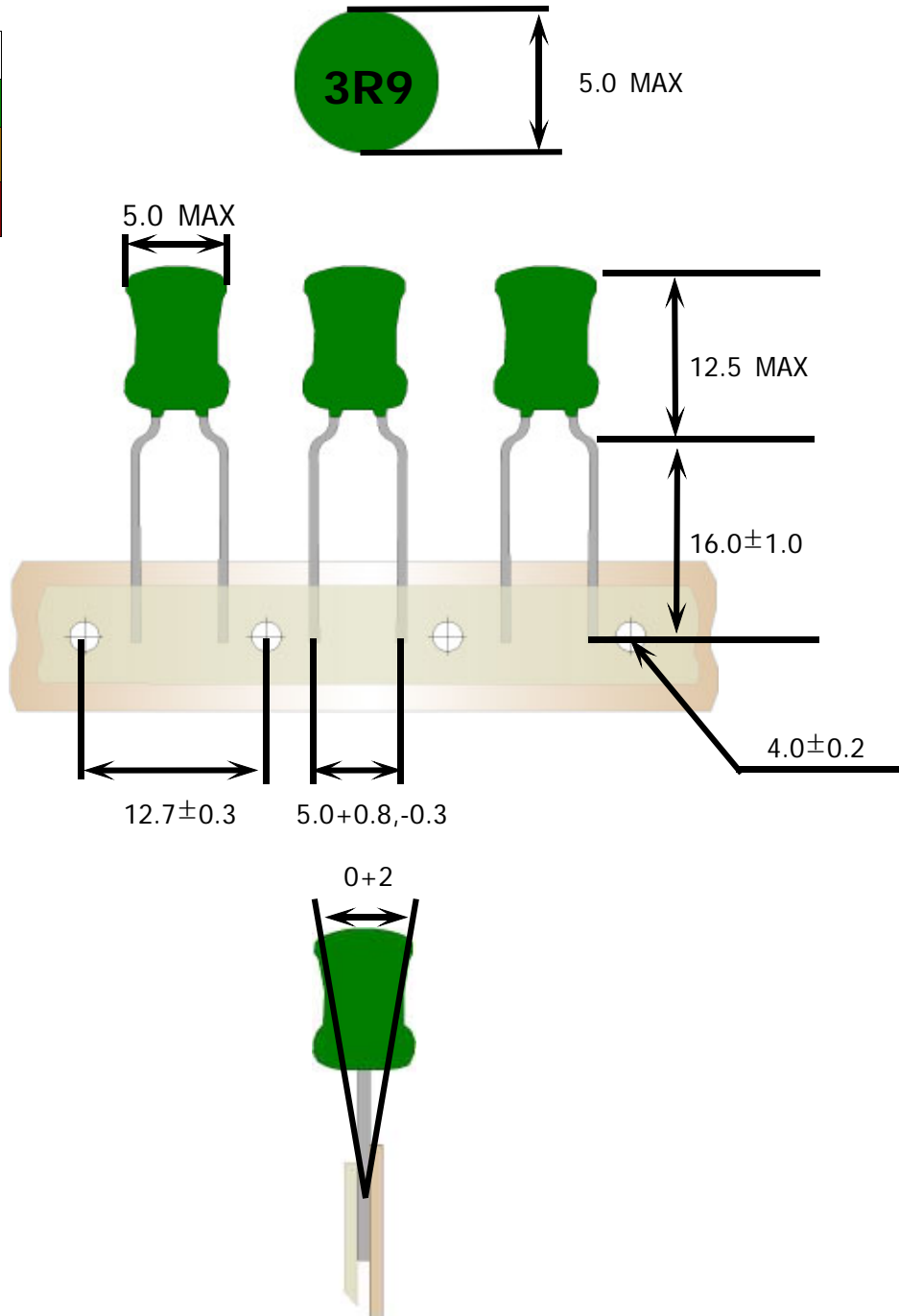
SPECIFICATION		SHEET NO.	2 OF 10
		DATA	2010. 05. 20.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR1-3.9uH-TAPING & BULK	DESCRIPTION	DR 4 X 5.5mm

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

MARKING: 3R9 or 3R9K

* TAPING TYPE

EPOXY COLOR
GREEN
BROWN
RED



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CUSTOMER :

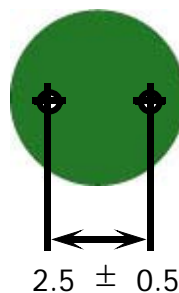
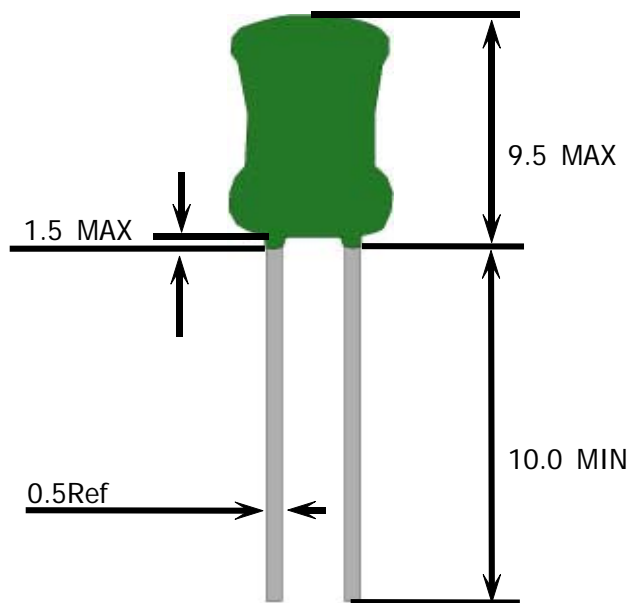
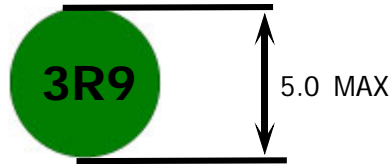
SPECIFICATION		SHEET NO.	3 OF 10
		DATA	2010. 05. 20.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR1-3.9uH-TAPING & BULK	DESCRIPTION	DR 4 X 5.5mm

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

MARKING: 3R9 or 3R9K

* BULK TYPE

EPOXY COLOR
GREEN
BROWN
RED



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CUSTOMER :

SPECIFICATION		SHEET NO.	4 OF 10
		DATA	2010. 05. 20.
PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR1-3.9uH-TAPING & BULK	DESCRIPTION	DR 4 X 5.5mm

5. WINDING SPEC

START & FINISH	TYPE OF WIRE	T U R N S	WINDING METHODE
	2UEW 0.23Φ	14.5_Ts REF	SOLENOID WINDING [C . C . W]

6. ELECTRICAL CHARACTERISTIC

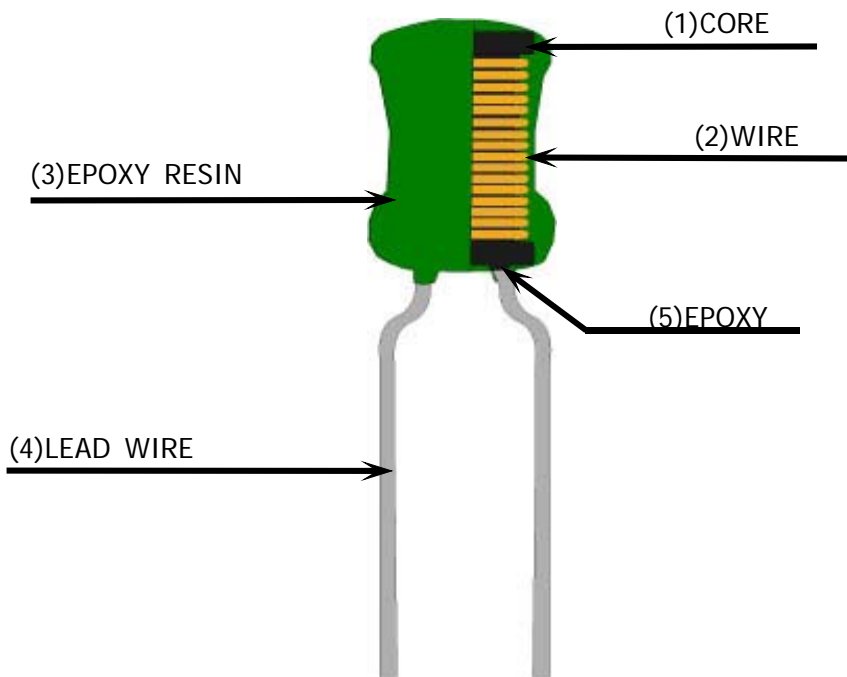
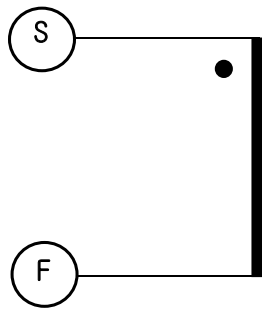
NO	I T E M	MESURE	SPECIFICATION	REMARKS
1	INDUCTANCE	START & FINISH	3.9 [uH] ± 20%	HIOKI3522 LCR METER at 1kHz 1V
2	DC RESISTANCE	START & FINISH	0.09 [Ω] MAX	WHEATSTONE BRIDGE TYPE 2755
3	DIELECTRIC WITHSTANDING TEST	COIL & CORE	AC 1 [KV] , FREQUANCY 60 [Hz] , 1 MINUTES, CUT OFF CURENT 2 [mA]	NO BREAKDOWN HPT-5010
4	INSULATION RESISTANCE	COIL & CORE	DC 500 [V] , 100 [MΩ] MIN	DM-500AD

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PART NO.	DR1-3.9uH-TAPING & BULK	DESCRIPTION	DR 4 X 5.5mm

7. SCHEMATIC DIAGRAM



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CUSTOMER :

SPECIFICATION		SHEET NO.	6 OF 10
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PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR1-3.9uH-TAPING & BULK	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. CORE-TECH CORP	
2	WIRE	2UEW 0.23Φ	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	PENGAI YUAN TONG IL-KWANG ELECTRONIC MATERIALS CO.,LTD. YEHUA ELECTRON MATERIAL LIMITED CO.,LTD.	
5	EPOXY	6020H	GUANGZHOU WELLS CHEMICAL CO.,LTD. DAE JOO FINE 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	μ_{ic} ±25%	Bms GAUSS	WORKING Frequency(MHZ)	Tc ℃	ρ Ω-cm	d g/cm ³	TANσ/μi 10 ⁻⁶ (MHZ)	α _r 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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PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR1-3.9uH-TAPING & BULK	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.	DR1-3.9uH-TAPING & BULK	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>					
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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PART NAME	RADIAL INDUCTOR	MODEL NAME	
PART NO.	DR1-3.9uH-TAPING & BULK	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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PART NO.	DR1-3.9uH-TAPING & BULK	DESCRIPTION	DR 4 X 5.5mm

11. INSPECTION DATA

NO	INDUCTANCE	DC RESISTANCE	내전압	절연저항
SPEC	3.9uH±20%	0.09Ω MAX	AC 1KV 1분 MIN	DC 500V 100MΩMIN
1	3.95	0.072	OK	OK
2	4.04	0.072	OK	OK
3	3.90	0.071	OK	OK
4	4.03	0.07	OK	OK
5	3.88	0.072	OK	OK
6	3.93	0.073	OK	OK
7	3.94	0.072	OK	OK
8	4.00	0.073	OK	OK
9	3.95	0.071	OK	OK
10	4.07	0.072	OK	OK
\bar{X}	3.969	0.0718		
MIN	3.88	0.07		
MAX	4.07	0.073		

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