

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) 560uH (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 :

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|----------------------|-----------------|-------------|---------------|
| SPECIFICATION | | SHEET NO. | 1 OF 10 |
| | | DATA | 2008. 06. 30. |
| PART NAME | RADIAL INDUCTOR | MODEL NAME | |
| PART NO. | DR1-560uH-T.B | DESCRIPTION | DR 4 X 5.5mm |

1. GENERAL SPECIFICATION

1) SCOPE

This specification applies to part number 560uH **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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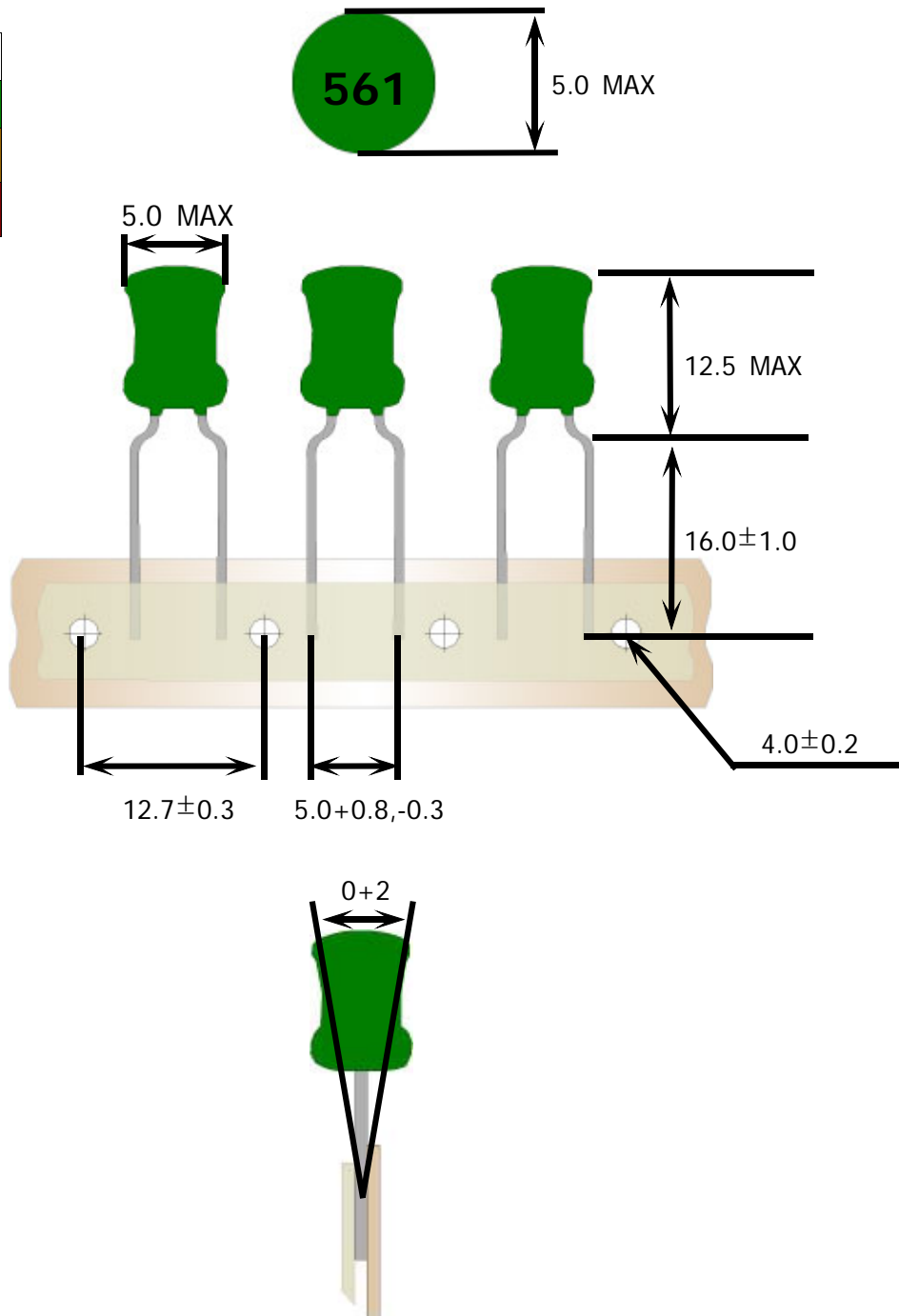
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| SPECIFICATION | | SHEET NO. | 2 OF 10 |
| | | DATA | 2008. 06. 30. |
| PART NAME | RADIAL INDUCTOR | MODEL NAME | |
| PART NO. | DR1-560uH-T.B | DESCRIPTION | DR 4 X 5.5mm |

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

MARKING : 560 or 561K

*** TAPING TYPE**

| |
|-------------|
| EPOXY COLOR |
| GREEN |
| BROWN |
| RED |



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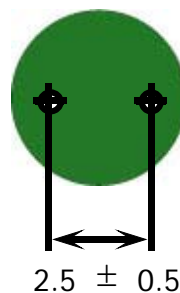
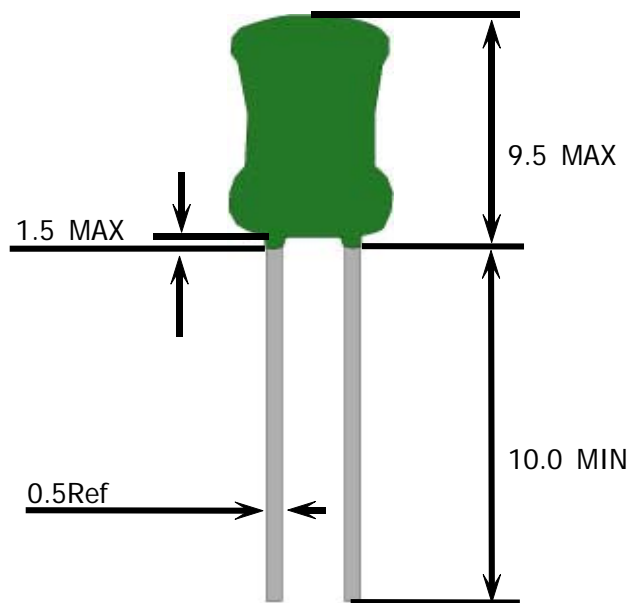
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| SPECIFICATION | | SHEET NO. | 3 OF 10 |
| | | DATA | 2008. 06. 30. |
| PART NAME | RADIAL INDUCTOR | MODEL NAME | |
| PART NO. | DR1-560uH-T.B | DESCRIPTION | DR 4 X 5.5mm |

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

MARKING : 561 or 561K

* BULK TYPE

| |
|-------------|
| EPOXY COLOR |
| GREEN |
| BROWN |
| RED |



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| SPECIFICATION | | SHEET NO. | 4 OF 10 |
| | | DATA | 2008. 06. 30. |
| PART NAME | RADIAL INDUCTOR | MODEL NAME | |
| PART NO. | DR1-560uH-T.B | DESCRIPTION | DR 4 X 5.5mm |

5. WINDING SPEC

| | | | |
|----------------------|--------------|--------------|---------------------------------|
| START & FINISH | TYPE OF WIRE | T U R N S | WINDING METHODE |
| | 2UEW 0.08Φ | 162.5_Ts REF | SOLENOID WINDING [C . C . W] |

6. ELECTRICAL CHARACTERISTIC

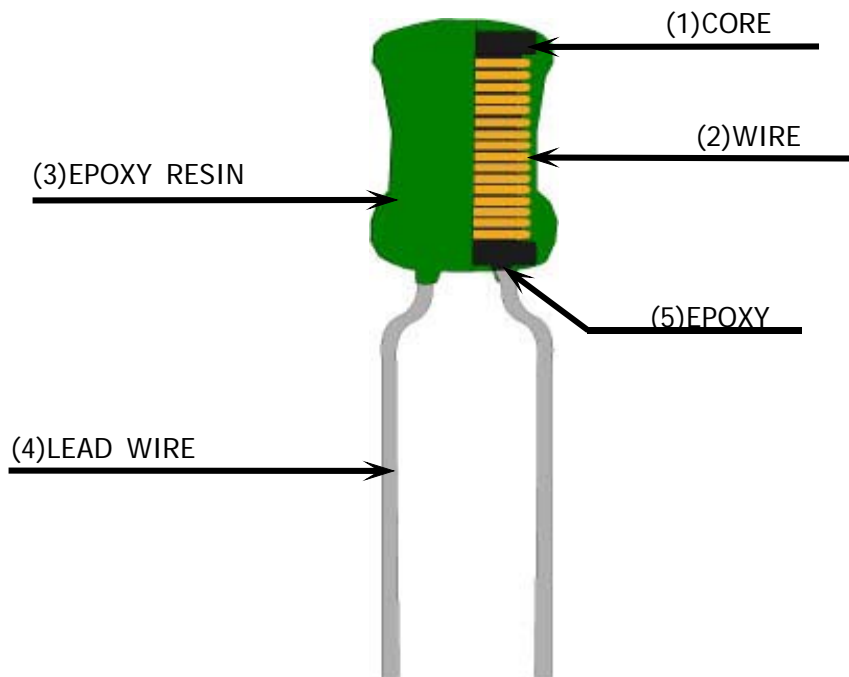
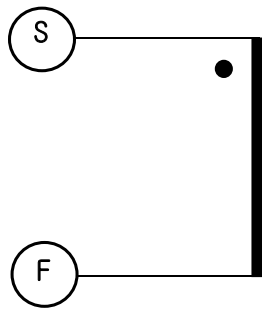
| NO | I T E M | MESURE | SPECIFICATION | REMARKS |
|----|------------------------------------|----------------------|---|--------------------------------------|
| 1 | INDUCTANCE | START & FINISH | 560_[uH] ± 10% | HIOKI3522 LCR METER at 1kHz 1V |
| 2 | DC RESISTANCE | START & FINISH | 5.0_[Ω] MAX | 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 10 |
| | | DATA | 2008. 06. 30. |
| PART NAME | RADIAL INDUCTOR | MODEL NAME | |
| PART NO. | DR1-560uH-T.B | DESCRIPTION | DR 4 X 5.5mm |

7. SCHEMATIC DIAGRAM



| NO | REVISION | DATE | CHECK | DRAWN | CHECKED | APPROVED |
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| SPECIFICATION | | SHEET NO. | 6 OF 10 |
| | | DATA | 2008. 06. 30. |
| PART NAME | RADIAL INDUCTOR | MODEL NAME | |
| PART NO. | DR1-560uH-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 0.08Φ | 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 | μ_{ic} ±25% | Bms GAUSS | WORKING Frequency(MHZ) | Tc ℃ | ρ Ω -cm | d g/cm ³ | TAN σ / μ i 10 ⁻⁶ (MHZ) | $\alpha_{\mu r}$ 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 NO. | DR1-560uH-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- | 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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| PART NAME | RADIAL INDUCTOR | MODEL NAME | |
| PART NO. | DR1-560uH-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> | | | | | |
| 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. | DR1-560uH-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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| SPECIFICATION | | SHEET NO. | 10 OF 10 |
| | | DATA | 2008. 06. 30. |
| PART NAME | RADIAL INDUCTOR | MODEL NAME | |
| PART NO. | DR1-560uH-T.B | DESCRIPTION | DR 4 X 5.5mm |

11. INSPECTION DATA

| NO | INDUCTANCE | DC RESISTANCE | 내전압 | 절연저항 |
|-----------|-------------|---------------|---------------|------------------|
| SPEC | 560uH ± 10% | 5.0Ω MAX | AC 1KV 1분 MIN | DC 500V 100MΩMIN |
| 1 | 565.42 | 4.2 | OK | OK |
| 2 | 570.58 | 4.4 | OK | OK |
| 3 | 570.48 | 4.2 | OK | OK |
| 4 | 569.1 | 4.3 | OK | OK |
| 5 | 563.2 | 4.2 | OK | OK |
| 6 | 568.29 | 4.3 | OK | OK |
| 7 | 569.42 | 4.2 | OK | OK |
| 8 | 570.34 | 4.3 | OK | OK |
| 9 | 570.28 | 4.4 | OK | OK |
| 10 | 569.19 | 4.2 | OK | OK |
| \bar{X} | 568.63 | 4.27 | | |
| MIN | 563.2 | 4.2 | | |
| MAX | 570.58 | 4.4 | | |

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