

CUSTOMER :

NO : 070316-01

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

## APPLICATION FOR APPROVAL OF

ITEM : RADIAL INDUCTOR

DESCRIPTION : DR 6.5 × 7.5mm

CODE NO : DR2)33uH (BULK & TAPPING)

MODEL NO :

This space is used for customer's approval

DATE : 2008. 6. 13.

|                          |                      |
|--------------------------|----------------------|
| DRAWN BY<br>Y. H. JEON   | DATE<br>2008. 6.13.  |
| CHECKED BY               | DATE.                |
| APPROVED BY<br>J. G. KIM | DATE<br>2008. 6. 13. |

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| <b>SPECIFICATION</b> |                 | SHEET NO.   | 1 OF 8         |
|                      |                 | D A T E     | 2008. 6. 13.   |
| PART NAME            | RADIAL INDUCTOR | MODEL NAME  |                |
| PART NO.             | DR2-33uH-T.B    | DESCRIPTION | DR 6.5 × 7.5mm |

1. GENERAL SPECIFICATION

1) SCOPE

This specification applies to part number 33uH 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

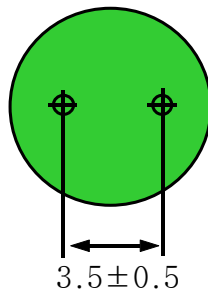
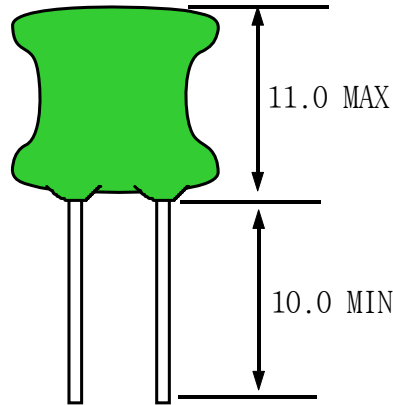
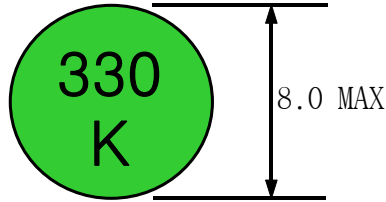
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| <b>SPECIFICATION</b> |                 | SHEET NO.   | 2 OF 8         |
|                      |                 | D A T E     | 2008. 6. 13.   |
| PART NAME            | RADIAL INDUCTOR | MODEL NAME  |                |
| PART NO.             | DR2-33uH-T.B    | DESCRIPTION | DR 6.5 × 7.5mm |

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

MARKING : 330K or 330



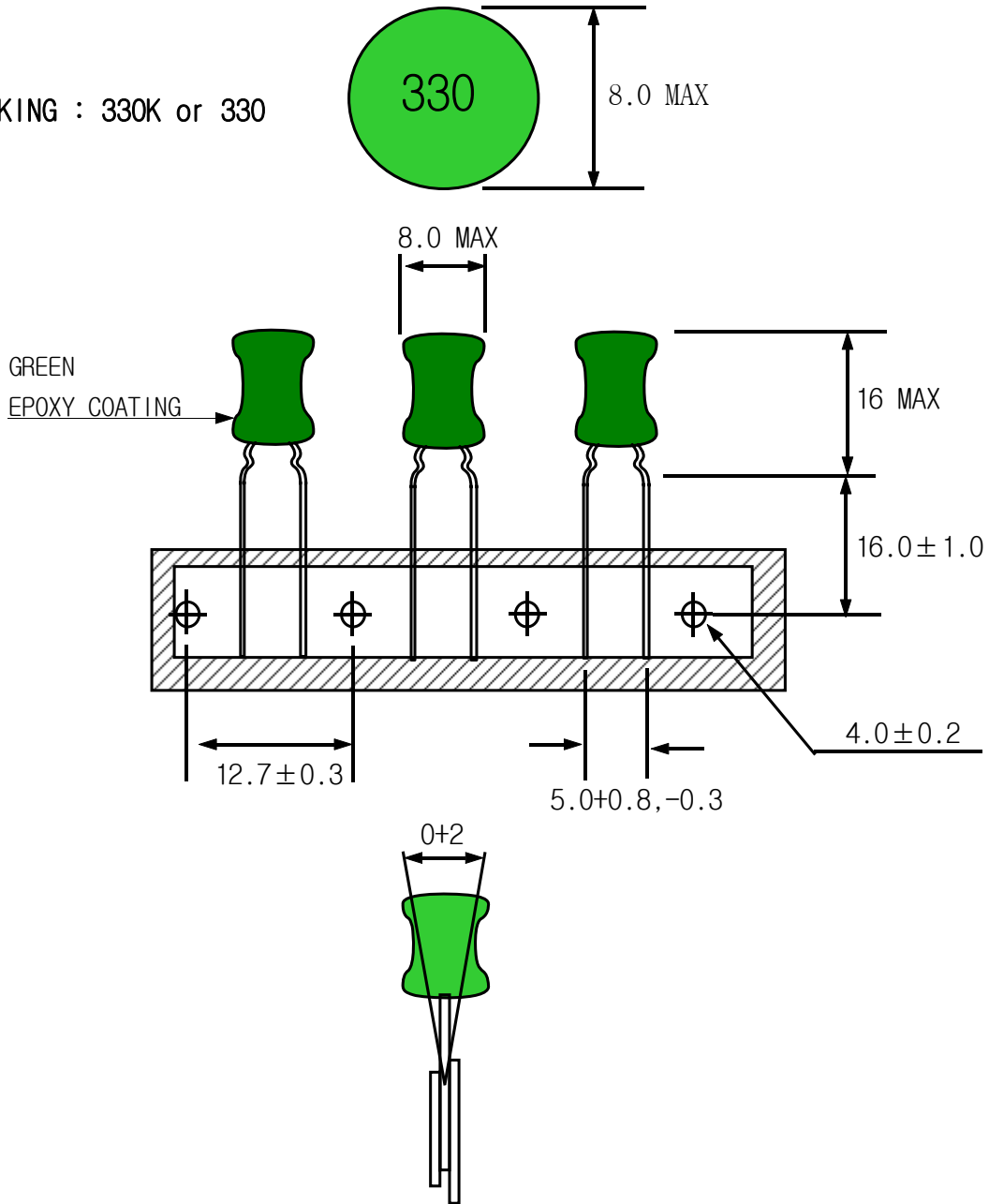
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| <b>SPECIFICATION</b> |                 | SHEET NO.   | 3 OF 8         |
|                      |                 | D A T E     | 2008. 6. 13.   |
| PART NAME            | RADIAL INDUCTOR | MODEL NAME  |                |
| PART NO.             | DR2-33uH-T.B    | DESCRIPTION | DR 6.5 × 7.5mm |

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

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|                      |                 | D A T E     | 2008. 6. 13.   |
| PART NAME            | RADIAL INDUCTOR | MODEL NAME  |                |
| PART NO.             | DR2-33uH-T.B    | DESCRIPTION | DR 6.5 × 7.5mm |

5. WINDING SPEC

|                      |              |                    |                                 |
|----------------------|--------------|--------------------|---------------------------------|
| START<br>&<br>FINISH | TYPE OF WIRE | T U R N S          | WINDING METHODE                 |
|                      | 2UEW 0.35 Ø  | <u>33.5</u> Ts REF | SOLENOID WINDING<br>[C . C . W] |

6. ELECTRICAL CHARACTERISTIC

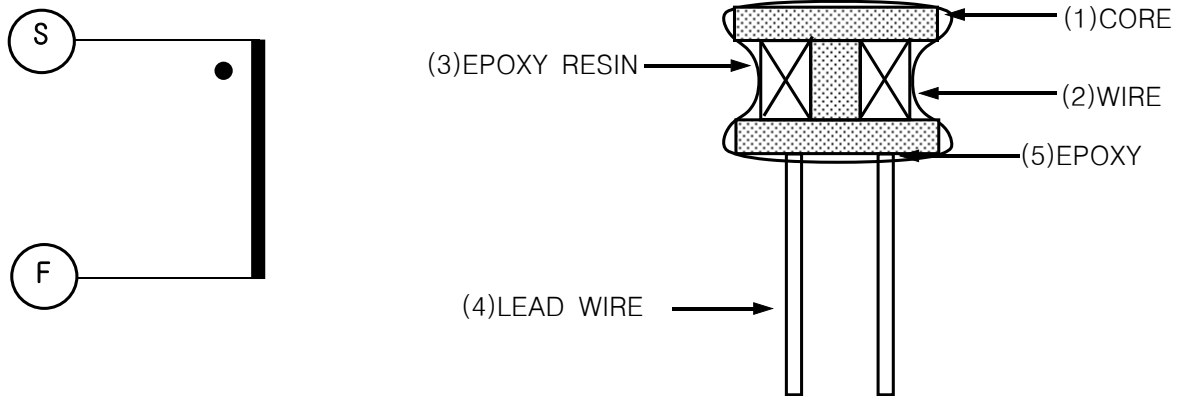
| NO | I T E M                            | MESURE               | SPECIFICATION  | REMARKS                              |
|----|------------------------------------|----------------------|--|--------------------------------------|
| 1  | INDUCTANCE                         | START<br>&<br>FINISH | <u>33</u> [uH] ± 10 [%]  | HIOKI3522<br>LCR METER<br>at 1kHz 1V |
| 2  | DC<br>RESISTANCE                   | START<br>&<br>FINISH | <u>0.15</u> [Ω] MAX  | WHEATSTONE<br>BRIDGE<br>TYPE 2755    |
| 3  | DIELECTRIC<br>WITHSTANDING<br>TEST | COIL<br>&<br>CORE    | AC <u>1</u> [KV] , FREQUANCY <u>60</u> [Hz] ,<br><u>1</u> MINUTES, CUT OFF CURRENT <u>2</u> [mA] | NO<br>BREAKDOWN                      |
| 4  | INSULATION<br>RESISTANCE           | COIL<br>&<br>CORE    | DC <u>500</u> [V] , <u>100</u> [MΩ] MIN  | DM-500AD                             |

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| <b>SPECIFICATION</b> |                 | SHEET NO.   | 5 OF 8         |
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| PART NAME            | RADIAL INDUCTOR | MODEL NAME  |                |
| PART NO.             | DR2-33uH-T.B    | DESCRIPTION | DR 6.5 × 7.5mm |

7. SCHEMATIC DIAGRAM



8. MATERIAL LIST

| NO | I T E M     | MATERIAL & DIMENSION          | MANUFACTURE   | REMARK              |
|----|-------------|-------------------------------|---|---------------------|
| 1  | C O R E     | SGB,DGB,JA3<br>DR 6.5 x 7.5mm | JAW SHIANQ CORPORATION CO.,LTD.<br>ZHAOYUAN FLYING ELECTRONIC CO.,LTD.<br>JIACI(ZHUHAI)ELECTRONICS CO.,LTD. |                     |
| 2  | W I R E     | 2UEW 0.35Ø<br>2UEW 0.35Ø      | DONG YANG ELECTRONICS CO., LTD.<br>ELEKTRISOLA CO., LTD   | E102761S<br>E210918 |
| 3  | EPOXY RESIN | DP-402NH-P<br>930A.B          | DAE JOO FINE CHEMICAL CO., LTD.<br>SAM SIN CHEMICAL CO.,LTD.  |                     |
| 4  | LEAD WIRE   | TPC 0.6Ø<br>TPCS 0.6Ø         | SAMATRON CO.,LTD<br>IL-KWANG ELECTRONIC MATERIALS CO.,LTD.  |                     |
| 5  | EPOXY       | 6020H                         | GUANGZHOU WELLS CHEMICAL CO.,LTD.   |                     |
| 6  | SOLDER BAR  | HSE-09                        | HEESUNG ENGINEERING CO.,LTD.  |                     |
| -  | FLUX        | F181<br>SF-A-2                | ZHUHAI FRIEND INDUSTRIAL CO.,LTD.<br>SOLUX CO.,LTD.   |                     |
| -  | INK         | 270BK                         | DOMINO KOREA CO.,LTD.   |                     |

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| <b>SPECIFICATION</b> |                 | SHEET NO.   | 6 OF 8         |
|                      |                 | D A T E     | 2008. 6. 13.   |
| PART NAME            | RADIAL INDUCTOR | MODEL NAME  |                |
| PART NO.             | DR2-33uH-T.B    | DESCRIPTION | DR 6.5 × 7.5mm |

9. TABLE OF STANDARD CHARACTERISTICS OF MATERIALS

| PROPERTY<br>UNIT<br>MATERIAL | $\mu_{iac}$<br>$\pm 25\%$ | Bms<br>GAUSS | WORKING<br>Frequency(MHZ) | Tc<br>°C | $\rho$<br>$\Omega\text{-cm}$ | d<br>g/cm <sup>3</sup> | TAN $\sigma / \mu i$<br>10 <sup>-6</sup> (MHZ) | $\alpha \mu r$<br>10 <sup>-6</sup> |
|------------------------------|---------------------------|--------------|---------------------------|----------|------------------------------|------------------------|--|------------------------------------|
| SGB                          | 300                       | 3300         | 0.1~2.0                   | 150      | 10 <sup>7</sup>              | 4.7 ~ 4.9              | 80(2)<br>15(0.1)                               | 25                                 |

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| PART NO.               | DR2-33uH-T.B    | DESCRIPTION | DR 6.5 × 7.5mm |

10. REMARK

|  |                           |                |             |     |
|--|---------------------------|----------------|-------------|-----|
| DONG YANG ELECTRONICS IND CO LTD                           |                           |                | E102761 (S) |     |
| 660-1 BANWOL-RI TAIAN-EWB HWASUNG-GUN,<br>KYUNGGI-DO KOREA |                           |                |             |     |
| Mtl  | Cost typ                  |                | ANSI        |     |
| Dsg  | BC                        | OC             | Type        | TI  |
| AI-EIW   | Polyesterimide            | Polyamideimide | MW35        | 200 |
| EIW  | Polyesterimide            |                | MW30        | 180 |
| NY-EIW   | Polyester-<br>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.

08MW2

January 15, 1997

Component - Magnet Wire

ELEKTRISOLA (MALAYSIA) SDN BHD

E143312 (M)

(B - cont. from A card)

|              |             |              |   |        |      |
|--------------|-------------|--------------|---|--------|------|
| Polysol 155  | P155        | Polyurethane | — | MW-79, | 155, |
|              |             |              |   | MW-75  | 130  |
| Polysol 155g | Pg155       | Polyurethane | — | MW75   | 130  |
| Polysol 155p | Pp155,Gp155 | Polyurethane | — | MW79   | 155  |
| Polysol 160  | P160        | Polyurethane | — | MW-79  | 155  |
| Polysol 180  | P180,G180   | Polyurethane | — | MW79   | 155  |

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.

Reports: March 13, 1992; March 13, 1992; March 13, 1992; March 13, 1992; March 13, 1992.

Replaces E143312E143312B dated April 20, 1992.

768673002

N3347

Underwriters Laboratories Inc.®

011/0210461

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| <b>SPECIFICATION</b> |                 | SHEET NO.   | 8 OF 8         |
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| PART NAME            | RADIAL INDUCTOR | MODEL NAME  |                |
| PART NO.             | DR2-33uH-T.B    | DESCRIPTION | DR 6.5 × 7.5mm |

11. INSPECTION DATA

| NO        | INDUCTANCE | DCR         | 내전압                | 절연저항                 |
|-----------|------------|-------------|--------------------|----------------------|
| SPEC      | 33uH ± 10% | 0.15 [Ω]MAX | AC 1.0KV 1분<br>MIN | DC 500V 100MΩ<br>MIN |
| 1         | 32.33      | 0.08        | OK                 | OK                   |
| 2         | 32.72      | 0.082       | OK                 | OK                   |
| 3         | 32.75      | 0.08        | OK                 | OK                   |
| 4         | 33.03      | 0.083       | OK                 | OK                   |
| 5         | 32.81      | 0.08        | OK                 | OK                   |
| 6         | 32.25      | 0.082       | OK                 | OK                   |
| 7         | 32.77      | 0.082       | OK                 | OK                   |
| 8         | 32.64      | 0.083       | OK                 | OK                   |
| 9         | 32.68      | 0.08        | OK                 | OK                   |
| 10        | 32.67      | 0.083       | OK                 | OK                   |
| $\bar{X}$ | 32.665     | 0.0815      |                    |                      |
| MIN       | 32.33      | 0.08        |                    |                      |
| MAX       | 33.03      | 0.082       |                    |                      |

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