

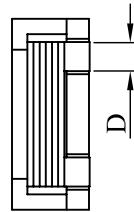
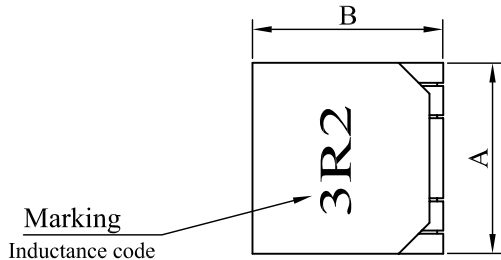
# SPECIFICATION FOR APPROVAL

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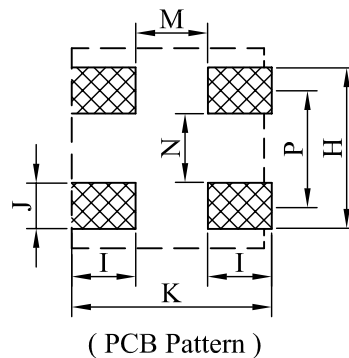
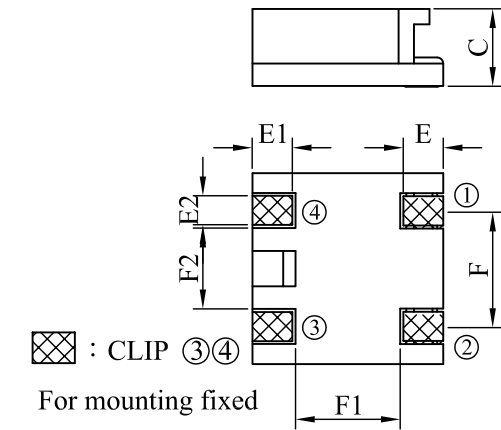
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|            |                                |                |                  |
|------------|--------------------------------|----------------|------------------|
| PROD. NAME | SHIELDED SMD<br>POWER INDUCTOR | ABC'S DWG NO.  | SD1206□□□□1□-□□□ |
|            |                                | ABC'S ITEM NO. |                  |

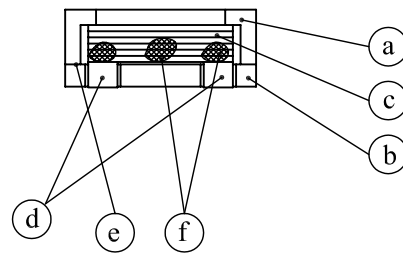
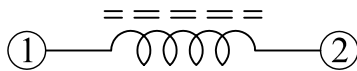
## I . MECHANICAL DIMENSIONS :



|    |              |     |
|----|--------------|-----|
| A  | : 12.50±0.30 | m/m |
| B  | : 12.50±0.30 | m/m |
| C  | : 5.70±0.30  | m/m |
| D  | : 1.90±0.20  | m/m |
| E  | : 2.50 nom.  | m/m |
| E1 | : 2.00 ref.  | m/m |
| E2 | : 2.00 ref.  | m/m |
| F  | : 7.50±0.25  | m/m |
| F1 | : 6.40 ref.  | m/m |
| F2 | : 5.20 ref.  | m/m |
| H  | : 10.50 ref. | m/m |
| I  | : 4.15 ref.  | m/m |
| J  | : 3.00 ref.  | m/m |
| K  | : 13.00 ref. | m/m |
| M  | : 4.70 ref.  | m/m |
| N  | : 4.50 ref.  | m/m |
| P  | : 7.50 ref.  | m/m |



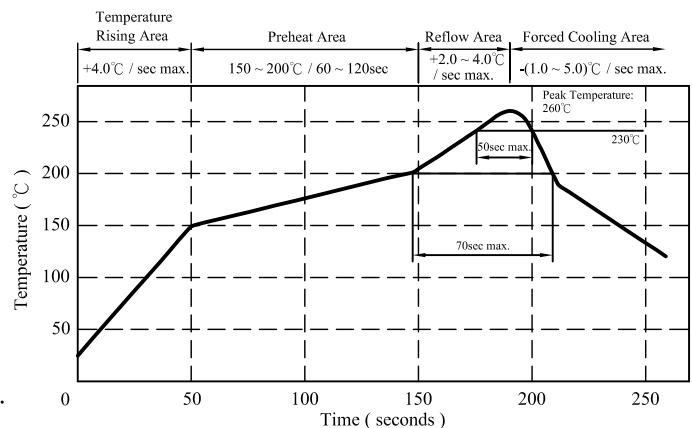
## II . SCHEMATIC DIAGRAM :



## III . MATERIALS LIST :

- a . Core : Ferrite ER core
- b . Core : Ferrite SB core
- c . Wire : Ultra-fine rectangular  
Enamelled copper wire
- d . Terminal : Cu/Sn
- e . Adhesive : Epoxy resin
- f . Adhesive : Epoxy resin
- g . Remark : Products comply with RoHS' requirements

Peak Temp : 260°C max.  
Max time above 230°C : 50sec max.  
Max time above 200°C : 70sec max.



## IV . GENERAL SPECIFICATION :

- a . Temp. rise : 40°C max.
- b . Storage temp. : -40°C ~ +125°C
- c . Operating temp. : -40°C ~ +105°C
- d . Resistance to solder heat : 260°C. 10 secs.

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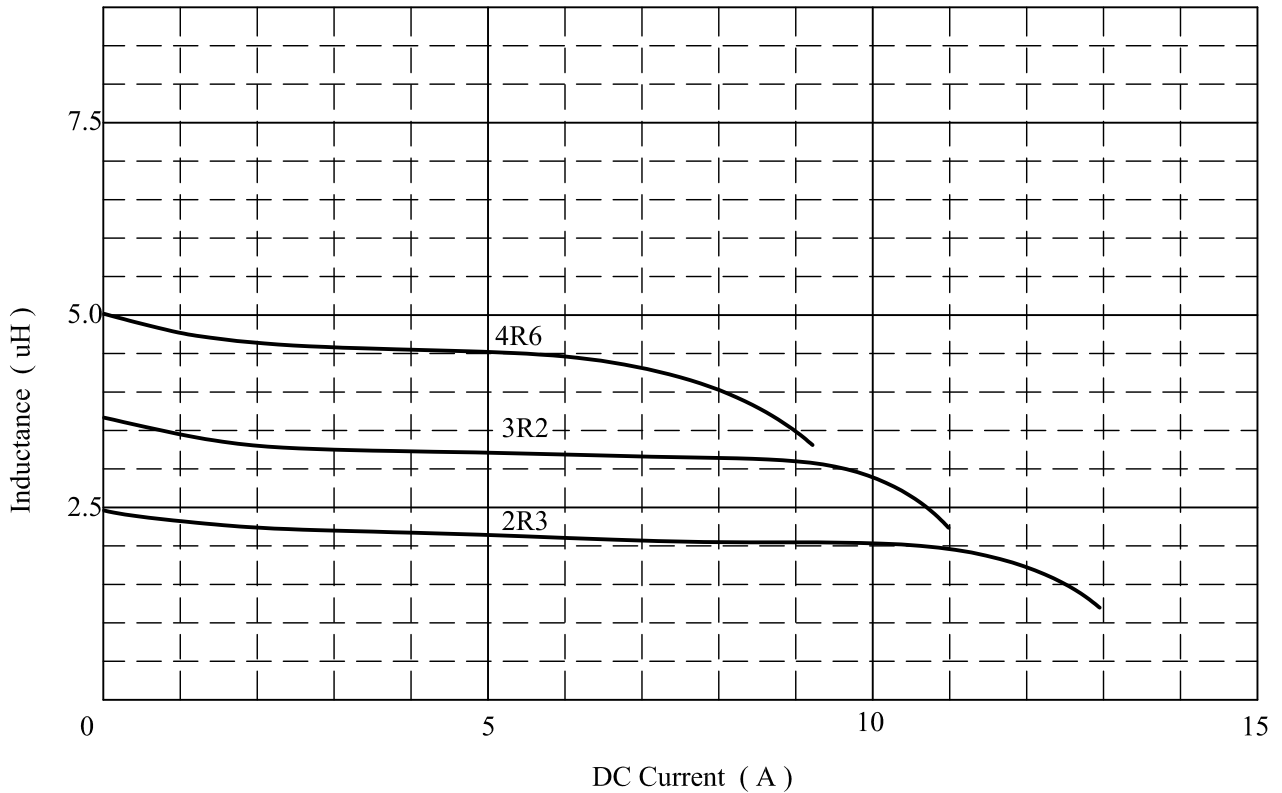
|            |                                |                |                  |
|------------|--------------------------------|----------------|------------------|
| PROD. NAME | SHIELDED SMD<br>POWER INDUCTOR | ABC'S DWG NO.  | SD1206□□□□1□-□□□ |
|            |                                | ABC'S ITEM NO. |                  |

### V . ELECTRICAL CHARACTERISTICS :

| DWG No.          | Initial inductance L0 ( uH ) | Inductance at flat point L1 ( uH ) | Flat point ref. ( A ) | Irms ( A ) | Isat ( A ) | DC Resistance max. ( mΩ ) |
|------------------|------------------------------|------------------------------------|-----------------------|------------|------------|---------------------------|
| SD12062R5Y1□-□□□ | 2.70±25%                     | 2.50±25%                           | 5.0                   | 13.0       | 12.0       | 6.0                       |
| SD12062R3Y1□-□□□ | 2.50±25%                     | 2.30±25%                           | 4.0                   | 10.5       | 11.0       | 4.6                       |
| SD12063R2Y1□-□□□ | 3.60±25%                     | 3.20±25%                           | 3.0                   | 10.0       | 8.5        | 6.0                       |
| SD12064R6Y1□-□□□ | 4.80±25%                     | 4.60±25%                           | 2.0                   | 9.0        | 7.5        | 7.0                       |

- 1). □ : Packaging Information... A: Bulk B: Taping Reel
- 2). "-□□□" : Reference code
- 3). Measured Frequency of inductance is 100 KHz / 1V
- 4). Isat base on inductance drop 20% max. of L1 value
- 5). Irms base on temp. rise 40°C max.

@ Inductance VS. DC Superposition Characteristics



# SPECIFICATION FOR APPROVAL

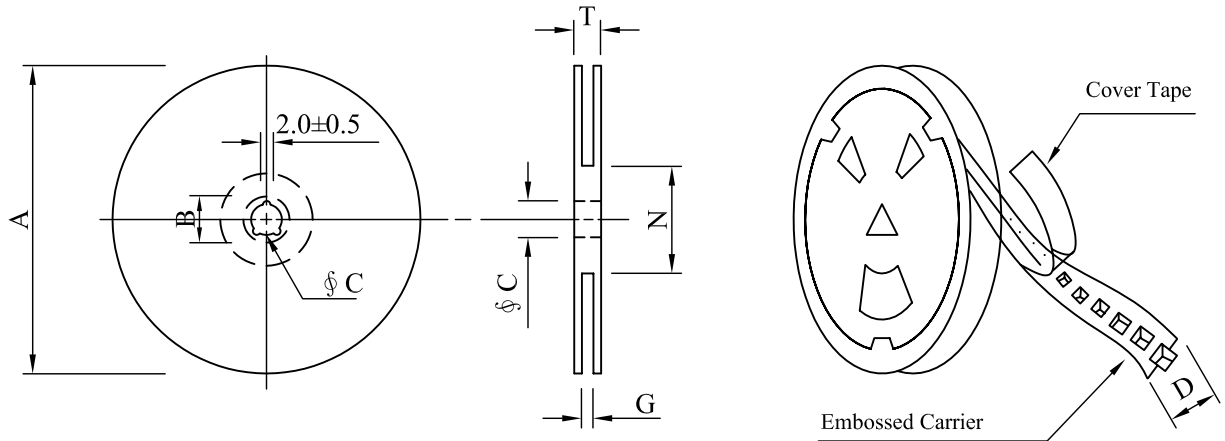
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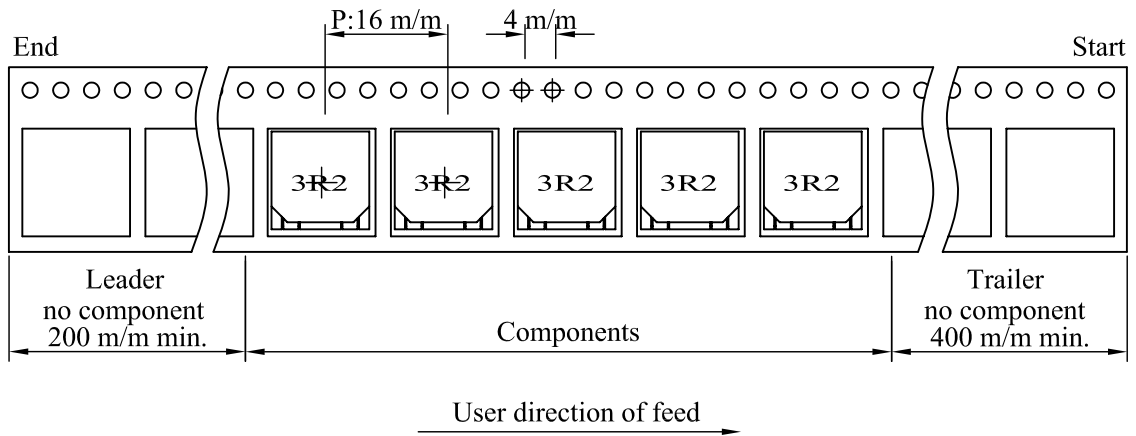
|            |                             |                |                  |
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| PROD. NAME | SHIELDED SMD POWER INDUCTOR | ABC'S DWG NO.  | SD1206□□□□1□-□□□ |
|            |                             | ABC'S ITEM NO. |                  |

## VI . PACKAGING INFORMATION :

### (1) Configuration



※Carrier Tape Width : D



### (2) Dimensions

Unit:m/m

| Style   | A   | B      | C  | D  | G                | N                | T    |
|---------|-----|--------|----|----|------------------|------------------|------|
| 13 - 24 | 330 | 21±0.8 | 13 | 24 | 26 <sup>+0</sup> | 50 <sup>-0</sup> | 30.4 |

### (3) Q'TY & G.W. Per package

| Series | Inner : Reel |           |         | Outer : Carton |           |              |
|--------|--------------|-----------|---------|----------------|-----------|--------------|
|        | Q'TY (pcs)   | G.W. (gw) | Style   | Q'TY (pcs)     | G.W. (Kg) | Size (cm)    |
| SD1206 | 600          | 2,150     | 13 - 24 | 2,400          | 11.30     | 40 x 40 x 24 |

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|               |                                | ABC'S ITEM NO. |                  |

**VIII . RELIABILITY TEST :**

| Test item                             | Specification  | Test condition  |            |        |          |            |  |            |            |        |         |            |  |            |
|---------------------------------------|--|---|------------|--------|----------|------------|--|------------|------------|--------|---------|------------|--|------------|
| Solderability                         | More than 90% of the terminal electrode shall be covered With fresh solder.                    | Preheat : 150±25°C for 60 seconds<br>Solder : Sn96.5 / Ag3 / Cu0.5 or equivalent<br>Solder temp. : 235±5°C<br>Flux : Rosin<br>Dip time : 4±1 seconds  |            |        |          |            |  |            |            |        |         |            |  |            |
| Thermal shock test<br>( Temp. cycle ) | Inductance shall not change more than ±20%   | <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Room temp.</td> <td style="text-align: center;">—————&gt;</td> <td style="text-align: center;">-25±2 °C</td> </tr> <tr> <td style="text-align: center;">15 minutes</td> <td></td> <td style="text-align: center;">30 minutes</td> </tr> <tr> <td style="text-align: center;">Room temp.</td> <td style="text-align: center;">—————&gt;</td> <td style="text-align: center;">85±2 °C</td> </tr> <tr> <td style="text-align: center;">15 minutes</td> <td></td> <td style="text-align: center;">30 minutes</td> </tr> </table> <p>Total : 50 cycles</p> | Room temp. | —————> | -25±2 °C | 15 minutes |  | 30 minutes | Room temp. | —————> | 85±2 °C | 15 minutes |  | 30 minutes |
| Room temp.                            |  | —————>  | -25±2 °C   |        |          |            |  |            |            |        |         |            |  |            |
| 15 minutes                            |  |   | 30 minutes |        |          |            |  |            |            |        |         |            |  |            |
| Room temp.                            |  | —————>  | 85±2 °C    |        |          |            |  |            |            |        |         |            |  |            |
| 15 minutes                            |  | 30 minutes  |            |        |          |            |  |            |            |        |         |            |  |            |
| Humidity<br>Resistance test           | Temperature : 40±2°C<br>Humidity : 90 ~ 95%<br>Applied current : Per spec.<br>Time : 500 hours |   |            |        |          |            |  |            |            |        |         |            |  |            |
| High temp.<br>Resistance test         | Temperature : 105±2°C<br>Applied current : Per spec.<br>Time : 500 hours                       |   |            |        |          |            |  |            |            |        |         |            |  |            |

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|               |                                |                                 |                  |
|---------------|--------------------------------|---------------------------------|------------------|
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|---------------|--------------------------------|---------------------------------|------------------|

IX . UL CARD :

|  |                         |   |
|--|-------------------------|---|
| OBMW2  | January 7, 1988         |   |
| Component-Magnet Wire  |                         | E104048 (S)                                 |
| MITSUBISHI CABLE INDUSTRIES LTD  |                         |   |
| 4-3 IKEJIRI ITAMI , HYOGO 664 JAPAN  |                         |   |
| Mtl<br>Dsg<br>EDW-R52  | Coat Typ<br>BC<br>Medis | ANSI<br>Type<br>Type<br>Type                |
|  | Oyercoat<br>Ester-imide | Temp<br>Class<br>155                        |
| Marking : Company name and type designation on package or reels.   |                         |   |
| See General Information Preceding These Recognitions.  |                         |   |
| For use only in equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc. |                         |   |
| Report : January 5, 1988.  |                         |   |
| 302279005  | H7642                   | Underwriters Laboratories Inc.® D11/0149909 |