

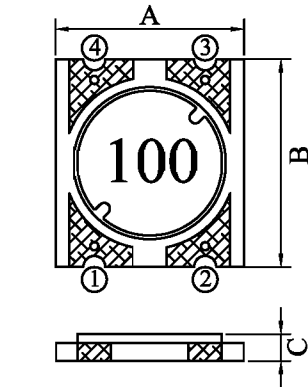
SPECIFICATION FOR APPROVAL

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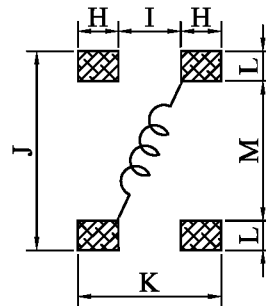
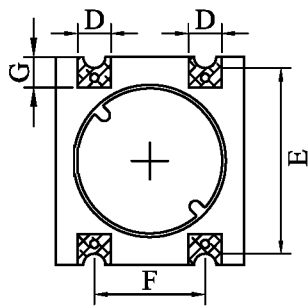
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| | | | |
|---------------|--------------------|----------------|------------------|
| PROD. NAME | SMD POWER INDUCTOR | ABC'S DWG No. | SB6011□□□□L□-□□□ |
| | | ABC'S ITEM No. | |

I . CONFIGURATION & DIMENSIONS :

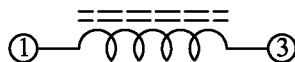


| | | | |
|---|--------|------|-----|
| A | : 6.80 | ±0.3 | m/m |
| B | : 7.50 | ±0.3 | m/m |
| C | : 1.05 | ±0.1 | m/m |
| D | : 1.20 | typ. | m/m |
| E | : 6.70 | typ. | m/m |
| F | : 4.00 | typ. | m/m |
| G | : 1.10 | ref. | m/m |
| H | : 1.40 | ref. | m/m |
| I | : 2.60 | ref. | m/m |
| J | : 7.90 | ref. | m/m |
| K | : 5.40 | ref. | m/m |
| L | : 1.50 | ref. | m/m |
| M | : 4.90 | ref. | m/m |



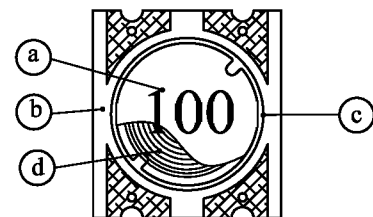
(PCB Pattern Suggestion)

II . SCHEMATIC DIAGRAM :



III . MATERIALS :

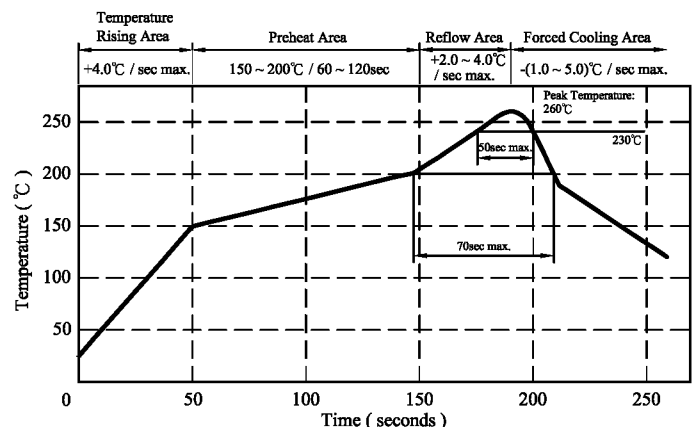
- a . Core : Ferrite DR core
- b . Base : PCB Base FR4
- c . Adhesive : Epoxy resin
- d . Wire : Enamelled copper wire (class F)
- e . Remark : Products comply with RoHS' requirements



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 typ.
- b . Rated current : Base on Temp. rise & $\Delta L/L0A=10\%$ max.
- c . Storage Temp. : -40°C ----+125°C
- d . Operating Temp. : -40°C ----+125°C
(Included Temp. rise)
- e . Resistance to solder heat : 260°C.10 secs.



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V . ELECTRICAL CHARACTERISTICS :

| DWG No. | Inductance (μ H) | Test Freq. (Hz) | RDC (Ω) | | I _{rms} (A) typ. | I _{sat} (A) max. |
|------------------|---------------------------|----------------------|---------------------|-------|-----------------------------------|-----------------------------------|
| | | | typ. | max. | | |
| SB60114R7ML□-□□□ | 4.7±20% | 100K | 0.096 | 0.130 | 1.20 | 1.30 |
| SB6011100ML□-□□□ | 10.0±20% | 100K | 0.210 | 0.260 | 0.80 | 0.86 |
| SB6011220ML□-□□□ | 22.0±20% | 100K | 0.450 | 0.560 | 0.50 | 0.57 |
| SB6011330ML□-□□□ | 33.0±20% | 100K | 0.650 | 0.780 | 0.39 | 0.46 |
| SB6011470ML□-□□□ | 47.0±20% | 100K | 0.910 | 1.100 | 0.32 | 0.38 |
| SB6011101ML□-□□□ | 100.0±20% | 100K | 2.050 | 2.500 | 0.21 | 0.25 |

1). □ : Packaging information ... [A]: Bulk [B]: Taping Reel

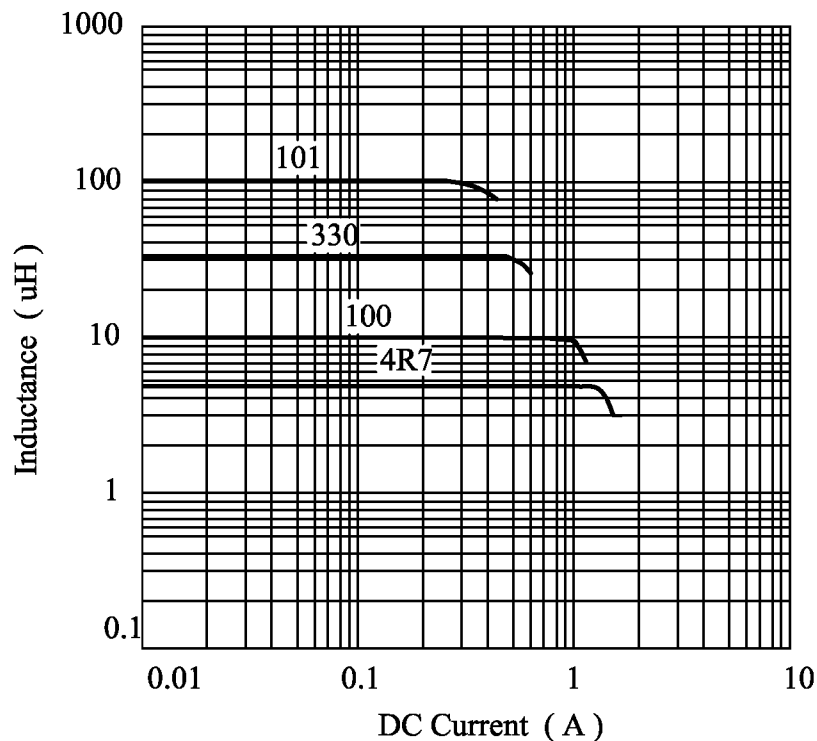
2). "-□□□":Reference code

3).Inductance Test Freq : 100KHz / 0.1V

4). I_{rms} Base on Temp. rise 40°C typ.

I_{sat} Bae on $\Delta L/L0A=10\%$ max.

@ Inductance VS. DC Superposition Characteristics



SPECIFICATION FOR APPROVAL

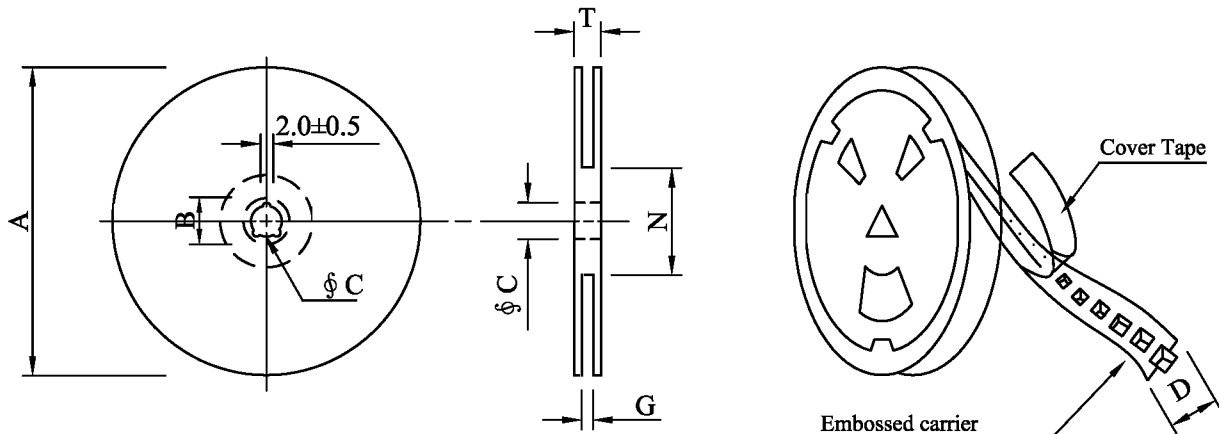
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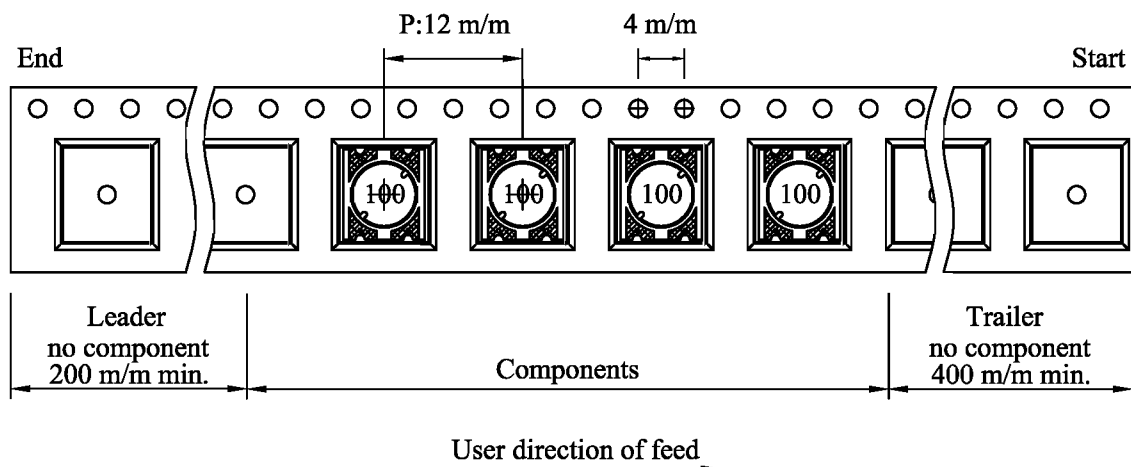
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| | | ABC'S ITEM No. | |

VI . PACKAGING INFORMATION :

(1) Configuration



※Carrier Tape width : D



(2) Dimensions

Unit:m/m

| Style | A | B | C | D | G | N | T |
|-------|-----|--------|----|----|------------------|------------------|------|
| 07-16 | 178 | 21±0.8 | 13 | 16 | 18 ⁺⁰ | 50 ⁻⁰ | 20.5 |

(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) |
| SB6011 | 1000 | 120 | 07-16 | 30000 | 4.6 | 42 x 41 x 24 |

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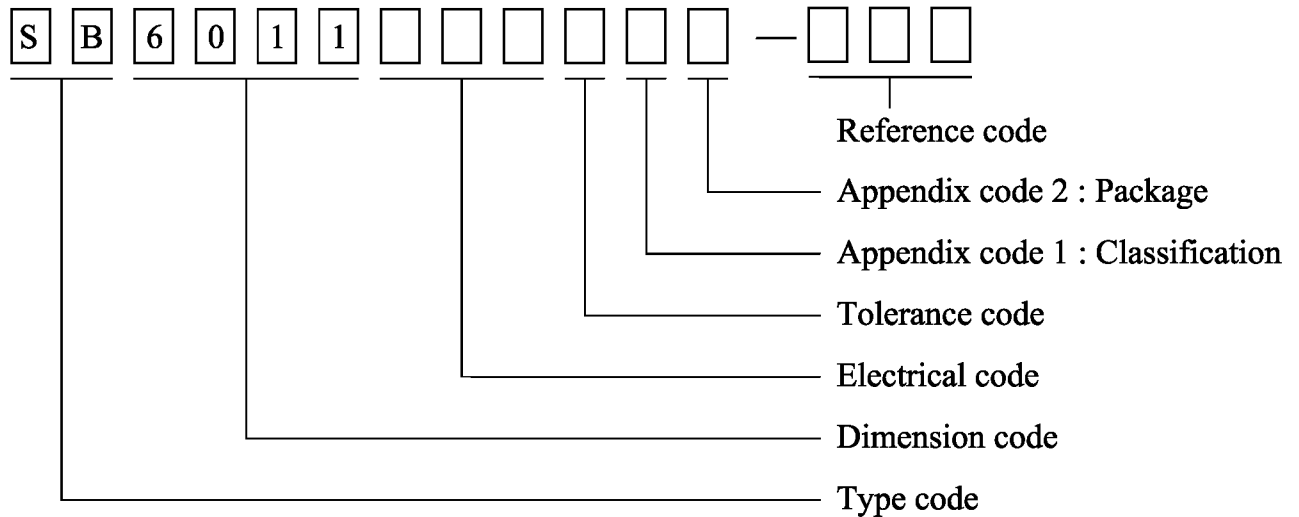
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| | | ABC'S ITEM No. | |

VII . DWGING NUMBER EXPRESSION :



Appendix code 1 : Product Classification

L : Lead Free Standard products comply with RoHS' requirements

1 ~ 9 : Lead Free Special products comply with RoHS' requirements

Appendix code 2 : Package Information

| Code | Inner package | Inner package Q'TY | Remark |
|------|------------------------|--------------------|--------|
| A | T.B.D. | T.B.D. | |
| B | T / R (Reel package) | 1000 pcs | |

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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 : $150\pm 25^{\circ}\text{C}$ for 60 seconds Solder : Sn96.5 / Ag3 / Cu0.5 or equivalent Solder temp. : $235\pm 5^{\circ}\text{C}$ Flux : Rosin Dip time : 4 ± 1 seconds |
| Thermal shock test (Temp. cycle) | Inductance shall not change more than $\pm 20\%$ | <div> Room temp. 15 minutes → $-25\pm 2^{\circ}\text{C}$ 30 minutes </div> <div> Room temp. 15 minutes → $85\pm 2^{\circ}\text{C}$ 30 minutes </div> Total : 50 cycles |
| Humidity Resistance test | | Temperature : $40\pm 2^{\circ}\text{C}$ Humidity : 90 ~ 95% Applied current : Per spec. Time : 500 hours |
| High temp. Resistance test | | Temperature : $85\pm 2^{\circ}\text{C}$ Applied current : Per spec. Time : 500 hours |

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| | | ABC'S ITEM No. | |

IX . UL CARD :

| OBMW2 | | September 8, 2000 | | | |
|--|-------------|-----------------------|-----------------------|--------------|---------------|
| Magnet Wire-Component | | | | | |
| JUNG SHING WIRE CO LTD | | E174837 | | | |
| 231 CHUNG CHENG RD, SEC 3 JEN-TEH HSIANG, TAINAN | | | | | |
| HSIEN TAIWAN | | | | | |
| Mtl Dsg | Mark Dsg | BC | Coat Typ | ANSI Type | Temp Class |
| AIW | — | Polyamideimide | — | MW81-C | 220 |
| CFUEWB | — | Polyurethane | — | MW75C | 130 |
| EIAIW | — | Polyesterimide | Polyamideimide | MW35C | 200 |
| EILOCKY | — | Polyesterimide | Polyamide | — | 180 |
| EILOCKW | — | Polyesterimide | Modified Epoxy | — | 200 |
| EIW | — | Polyesterimide | — | — | 220 |
| EIW-2 | — | Polyesterimide | — | MW74-C | 200 |
| FL.EILOCKY | — | Modified Polyester | Polyamide | — | 155 |
| LSFFW | — | Polyurethane | — | MW79-C | 155 |
| LSUEW | — | Polyurethane | — | — | 130 |
| PEW | — | Polyester | — | — | 155 |
| PEY | — | Polyester | Nylon | MW24-C | 155 |
| SF.FLW | — | Modified Polyester | — | MW26C | 155 |
| SF.EIW | — | Polyesterimide | — | MW77C | 180 |
| SF.BY@ | — | Modified Polyester | Nylon | MW27-C | 155 |
| SF.FLY@ | — | Modified Polyester | Nylon | MW27-C | 155 |
| SF.BLOCKBS | — | Modified Polyester | Modified Polyamide | — | 155 |
| SF.EILOCKY# | — | Polyesterimide | Polyamide | — | 180 |
| SF.EILOCKBS | — | Polyesterimide | Modified Polyamide | — | 180 |
| SF.BW@ | — | Modified Polyester | — | MW26C | 155 |
| SFFW | — | Polyurethane | — | MW79 | 155 |

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dedicated to public safety and
committed to quality service

| Mtl Dsg | Mark Dsg | BC | Coat Typ | ANSI Type | Temp Class |
|------------|-------------|--------------|-----------|--------------|---------------|
| SFFY | — | Polyurethane | Polyamide | MW80C | 155 |
| UEW-1 | — | Polyurethane | — | MW2-C | 105 |
| UEW-2 | — | Polyurethane | — | — | 130 |
| UEW-4 | — | Polyurethane | — | MW75C | 130 |
| UEY | — | Polyurethane | Nylon | MW28-C | 130 |
| UEY-2 | — | Polyurethane | Polyamide | MW28-C | 130 |

@-May be suffixed by LZ; # - May be suffixed by LZ, EL or LZL.

LZ - Signifies magnd wires twisted together; EL - signifies base coated magnet wire laid parallel with top coat applied overall; LZL - signi-
fies base coated magnet wire twisted together and covered with top coat overall.

Marking: Company name or trademarks JSW or 榮星電線, material designation or marked designation on packaed 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.

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| | | ABC'S ITEM No. | |

QMTS2

September 20, 2000

Polymeric Materials-Filament-wound Tubing. Industrial Laminates. Vulcanized Fiber, and Materials for Use in Fabricating Recognized Printed Wiring Boards - Component

TAIWAN LEADER COPPER CLAD LAMINATE CO LTD

E176891

| Clad Mil Deg | ANSI Type | Base Mtl | | Clad Cond Thick | | Max Area Dia | | Soldering | | UL94 Flame Class | Max Oper Temp | | |
|--|--------------|---------------------|--------|-------------------|-------------------|--------------------|------|-----------|-------------|------------------------|---------------------|-------|-----|
| | | Min Thick In. | (mm) | Min Mils (Mks) | Max Mils (Mks) | In. | (mm) | Temp C | Time Sec | | | | |
| Metal clad industrial laminates for use in printed wiring boards, furnished in the form of sheets with copper cladding on one or both sides. | | | | | | | | | | | | | |
| JL-180L | FR-5 | 0.025 | (0.63) | 0.67 | (17) | 2.68 | (68) | 2.0 | (50.8) | 300 | 30 | 94V-0 | 140 |
| LS-4 | FR-4 | 0.015 | (0.38) | 0.68 | (17) | 2.68 | (68) | 2.0 | (50.8) | 280 | 30 | 94V-0 | 130 |
| | | 0.015 | (0.38) | 0.68 | (17) | 2.68 | (68) | 1.5 | (38.1) | 288 | 30 | 94V-0 | 130 |
| LS-4Y | FR-4 | 0.015 | (0.38) | 0.67 | (17) | 2.68 | (68) | 2.0 | (50.8) | 288 | 30 | 94V-0 | 130 |

3/7/2001

Underwriters Laboratories Inc.®

