

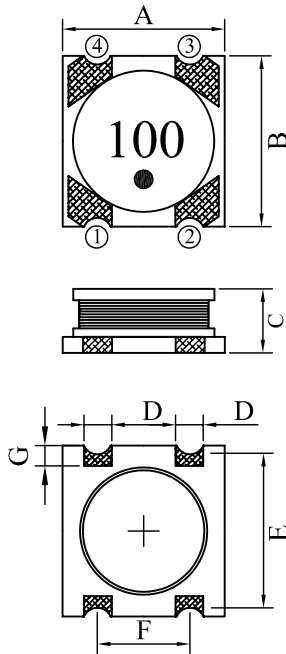
# SPECIFICATION FOR APPROVAL

REF :

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PROD. NAME	SMD POWER INDUCTOR	ABC'S DWG NO.	SB5017□□□□L□-□□□
		ABC'S ITEM NO.	

## I . CONFIGURATION & DIMENSIONS :

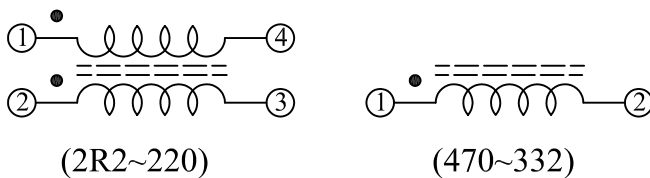


A	: 5.60 ±0.3	m/m
B	: 6.00 ±0.3	m/m
C	: 1.90 ±0.2	m/m
D	: 1.00 typ.	m/m
E	: 5.20 typ.	m/m
F	: 3.20 typ.	m/m
G	: 0.80 ref.	m/m
H	: 1.30 ref.	m/m
I	: 2.00 ref.	m/m
J	: 6.40 ref.	m/m
K	: 4.60 ref.	m/m
L	: 1.30 ref.	m/m
M	: 3.80 ref.	m/m

( PCB Pattern Suggestion )

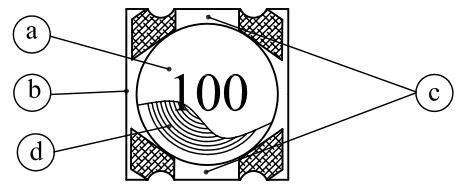
( Test method )  
(2R2~220)

## II . SCHEMATIC DIAGRAM :



## III . MATERIALS :

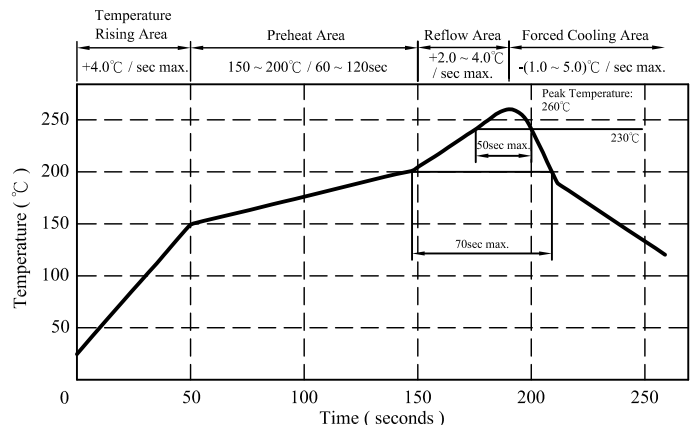
- a . Core : Ferrite DR core
- b . Base : PCB Base FR4
- c . Adhesive : Epoxy resin
- d . Wire : Enamelled copper wire ( class F )
- e . Terminal : Cu/Ni/Au
- f . Remark : Products comply with RoHS' requirements



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

## IV . GENERAL SPECIFICATION :

- a . Storage Temp. : -40°C ----+125°C
- b . Operating Temp. : -40°C ----+125°C  
( Temp. rise Included )
- c . Resistance to solder heat : 260°C.10 secs.



AR-001A

# SPECIFICATION FOR APPROVAL

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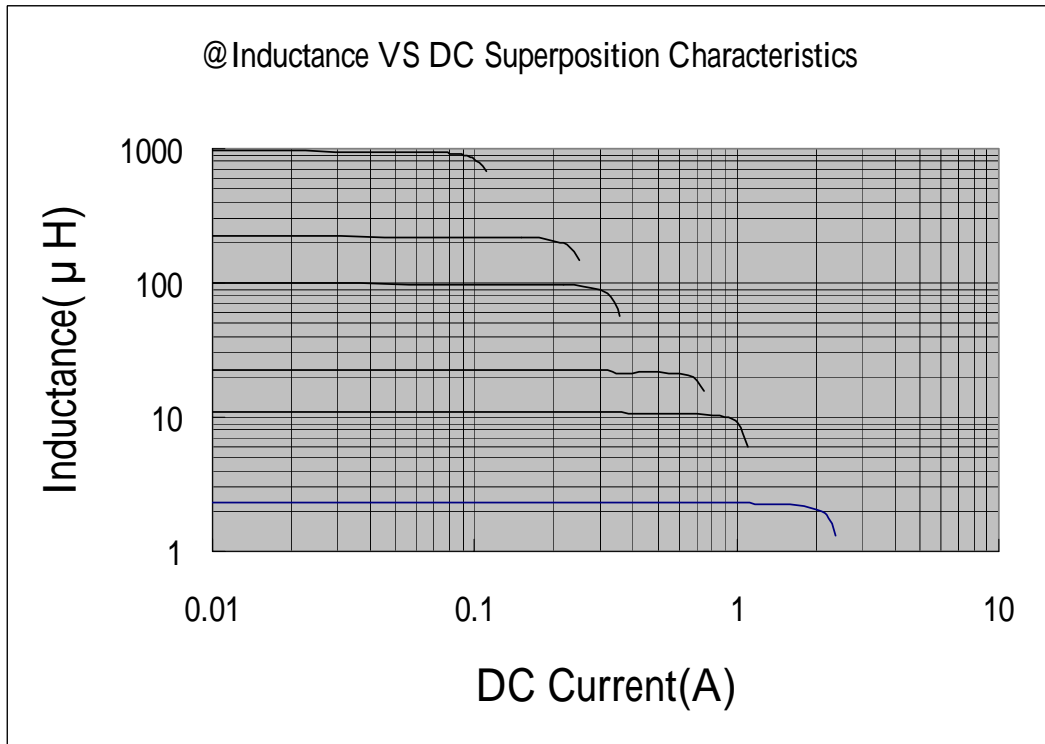
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## V . ELECTRICAL CHARACTERISTICS :

DWG NO.	INDUCTANCE ( $\mu$ H)	TEST FREQ. (Hz)	RDC( $\Omega$ ) max. / typ.	Irms (mA) max	Isat (mA) typ
SB50172R2YL□-□□□	2.2 $\pm$ 25%	100K	0.055 / 0.040	2000	1800
SB50174R7YL□-□□□	4.7 $\pm$ 25%	100K	0.092 / 0.071	1400	1300
SB5017100YL□-□□□	10.0 $\pm$ 25%	100K	0.195 / 0.155	900	800
SB5017220YL□-□□□	22.0 $\pm$ 25%	100K	0.420 / 0.327	700	580
SB5017470YL□-□□□	47.0 $\pm$ 15%	100K	0.800 / 0.650	500	380
SB5017101YL□-□□□	100.0 $\pm$ 15%	100K	1.800 / 1.450	320	270
SB5017221YL□-□□□	220.0 $\pm$ 15%	100K	4.200 / 3.400	220	200
SB5017471YL□-□□□	470.0 $\pm$ 15%	100K	8.500 / 6.850	150	130
SB5017102YL□-□□□	1000.0 $\pm$ 15%	100K	18.50 / 15.50	90	80
SB5017222YL□-□□□	2200.0 $\pm$ 15%	100K	40.00 / 34.00	60	55
SB5017332YL□-□□□	3300.0 $\pm$ 15%	100K	68.00 / 57.00	50	40

- 1). □ : Packaging information ... [A]: Bulk [B]: Taping Reel
- 2). "- □□□":Reference code
- 3). Inductance Test Freq : 100KHz / 1V
- 4). Irms Base on Temp. rise 40°C max.  
Isat Base on  $\Delta L/L0A=10\%$  typ.



AR-001A

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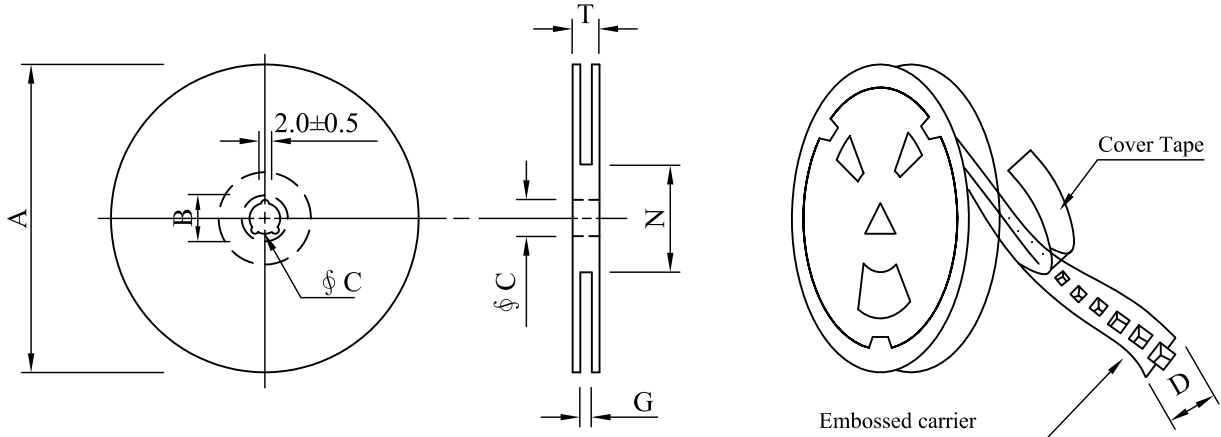
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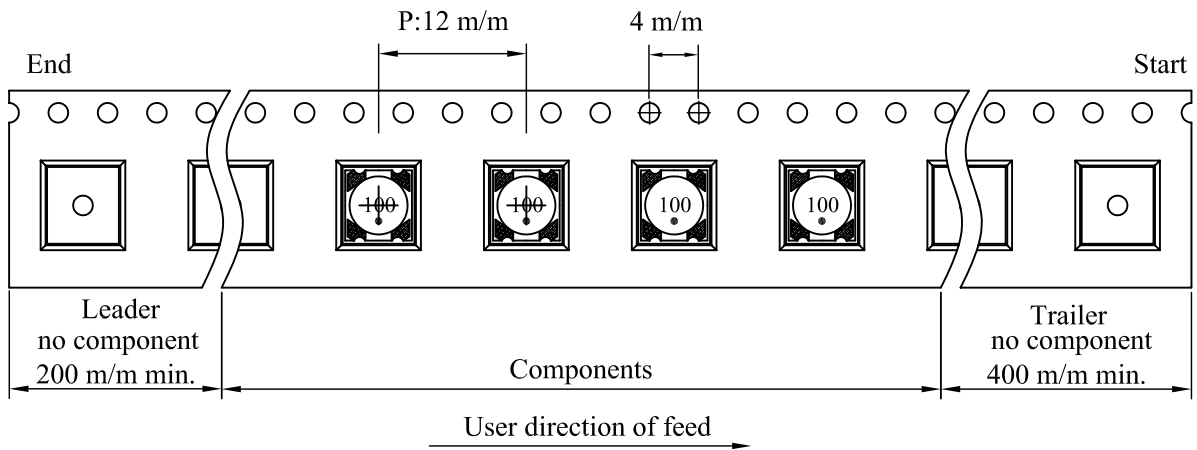
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**VI . PACKAGING INFORMATION :**

( 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 <sup>+0</sup>	50 <sup>-0</sup>	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)
SB5017	600	650	07-16	18000	4.56	42 x 41 x 24



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**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 Solder : Sn96.5 / Ag3 / Cu0.5 or equivalent Solder temp. : 235±5°C Flux : Rosin Dip time : 4±1 seconds															
Thermal shock test ( Temp. cycle )	Inductance shall not change more than ±20%	<table style="width: 100%; border: none;"> <tr> <td style="border: none;">Room temp.</td> <td style="border: none; text-align: center;">—————&gt;</td> <td style="border: none; text-align: center;">-25±2 °C</td> </tr> <tr> <td style="border: none;">15 minutes</td> <td style="border: none;"></td> <td style="border: none; text-align: center;">30 minutes</td> </tr> <tr> <td colspan="3" style="border: none;"> </td> </tr> <tr> <td style="border: none;">Room temp.</td> <td style="border: none; text-align: center;">—————&gt;</td> <td style="border: none; text-align: center;">85±2 °C</td> </tr> <tr> <td style="border: none;">15 minutes</td> <td style="border: none;"></td> <td style="border: none; 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 Resistance test		Temperature : 40±2°C Humidity : 90 ~ 95% Applied current : Per spec. Time : 500 hours															
High temp. Resistance test		Temperature : 85±2°C Applied current : Per spec. Time : 500 hours															

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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	OC	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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A not-for-profit organization  
dedicated to public safety and  
committed to quality service

Mtl Dsg	Mark Dsg	BC	Coat Typ	OC	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 LZI.  
LZ - Signifies magened 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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OBMW2E174837  
September 8 , 2000

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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	Base Mtl ANSI Type	Min Thick		Clad Cond Thick		Max Area Dia In. (mm)	Soldering		UL94 Flame Class	Max Oper Temp			
		In. (mm)	Mils (Mks)	Min	Max		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

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