

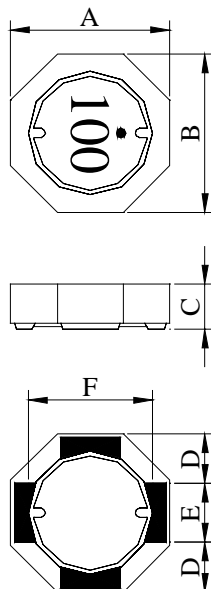
# SPECIFICATION FOR APPROVAL

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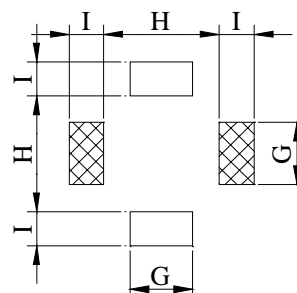
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PROD. NAME	SHIELDED SMD POWER INDUCTOR	ABC'S DWG NO.	SU5016□□□□L□
		ABC'S ITEM NO.	

## I . CONFIGURATION & DIMENSIONS :

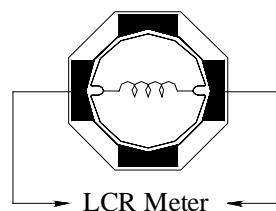


A :	5.20	±0.20	m/m
B :	5.20	±0.20	m/m
C :	1.60	±0.20	m/m
D :	1.70	typ.	m/m
E :	1.80	typ.	m/m
F :	3.90	typ.	m/m
G :	2.00	ref.	m/m
H :	3.70	ref.	m/m
I :	1.10	ref.	m/m



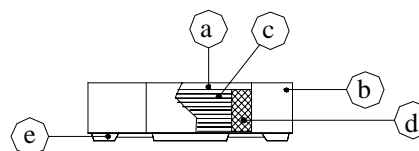
( PCB Pattern Suggestion )

## II . SCHEMATIC DIAGRAM :



## III . MATERIALS :

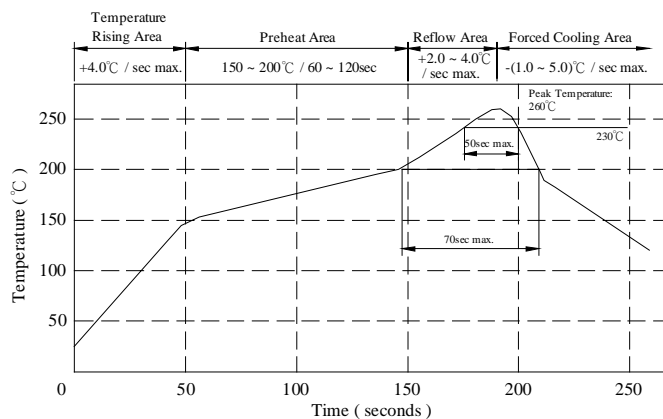
- a . Core : Ferrite DR core
- b . Core : Ferrite RI core
- c . Wire : Enamelled copper wire (class F)
- d . Adhesive : Epoxy resin
- e . Terminal : Ag/Ni/Sn
- f . Remark : Lead content 200ppm max.  
include ferrite



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 . Rated current :  
Base on temp. rise &  $\Delta L / LOA = 35\%$  typ.
- c . Storage temp. : -40°C ----+125°C
- d . Operating temp. : -40°C ----+105°C
- e . Resistance to solder heat : 260°C .10 secs.



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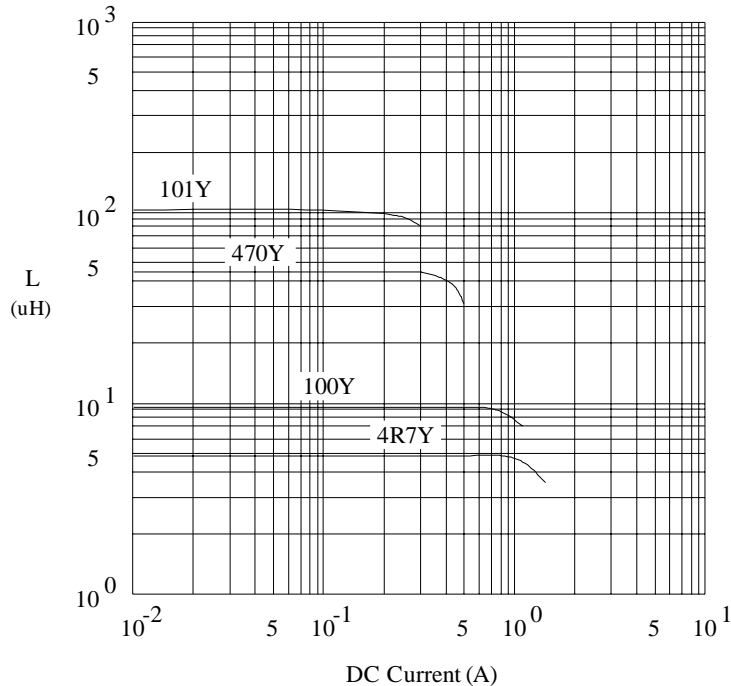
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## V . ELECTRICAL CHARACTERISTICS :

DWG No.	Inductance ( $\mu$ H)	Q ref.	Test Freq. ( Hz )		RDC ( m $\Omega$ )		SRF ( MHz ) typ.	Irms ( mA ) max.	Isat ( mA ) typ.
			L	Q	typ.	max.			
SU50161R8YL□	1.8 $\pm$ 30 %	9.0	100K	7.96M	24	32	100	1750	1700
SU50163R3YL□	3.3 $\pm$ 30 %	9.0	100K	7.96M	35	48	80	1550	1500
SU50164R7YL□	4.7 $\pm$ 30 %	9.0	100K	7.96M	43	57	60	1300	1200
SU50166R8YL□	6.8 $\pm$ 30 %	8.0	100K	7.96M	50	65	50	1200	1100
SU5016100YL□	10.0 $\pm$ 30 %	15.0	100K	2.52M	84	110	40	1000	900
SU5016150YL□	15.0 $\pm$ 30 %	15.0	100K	2.52M	130	170	32	800	720
SU5016220YL□	22.0 $\pm$ 30 %	15.0	100K	2.52M	195	250	28	650	560
SU5016330YL□	33.0 $\pm$ 30 %	13.0	100K	2.52M	300	375	22	540	500
SU5016470YL□	47.0 $\pm$ 30 %	18.0	100K	2.52M	390	480	18	460	420
SU5016680YL□	68.0 $\pm$ 30 %	18.0	100K	2.52M	560	700	15	360	330
SU5016101YL□	100.0 $\pm$ 30 %	18.0	100K	796K	850	1050	12	300	270

- 1) . □ : Packaging Information... [A] : Bulk [B] : Taping Reel
- 2) . Inductance Test Freq. : 100KHz / 0.1V
- 3) . Isat base on  $\Delta L / LOA = 35\%$  typ.
- 4) . Irms base on Temp. rise 40°C max.

@ Inductance vs. DC Current curve



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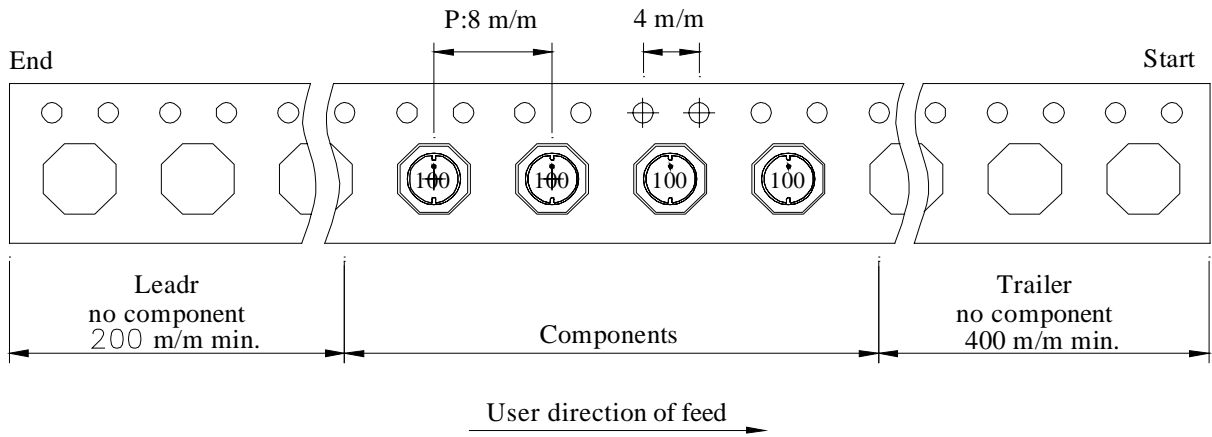
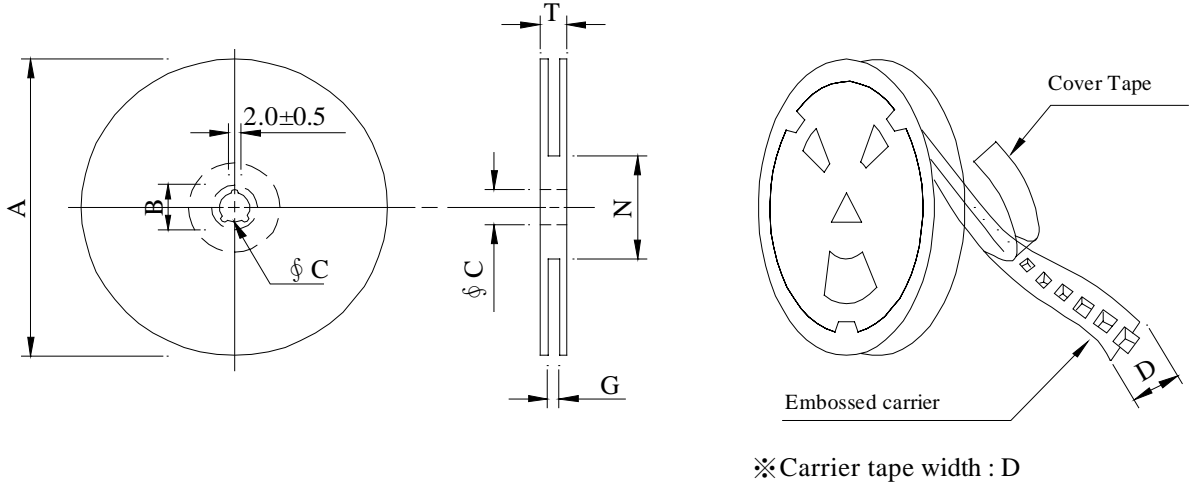
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		ABC'S ITEM NO.	

**VI . PACKAGING INFORMATION :**

( 1 ) Configuration



( 2 ) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
07 - 12	178	21±0.8	13	12	14 <sup>+0</sup>	50 <sup>-0</sup>	16.5

( 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)
SU5016	1,000	175	07 - 12	40,000	8.0	42 x 41 x 24

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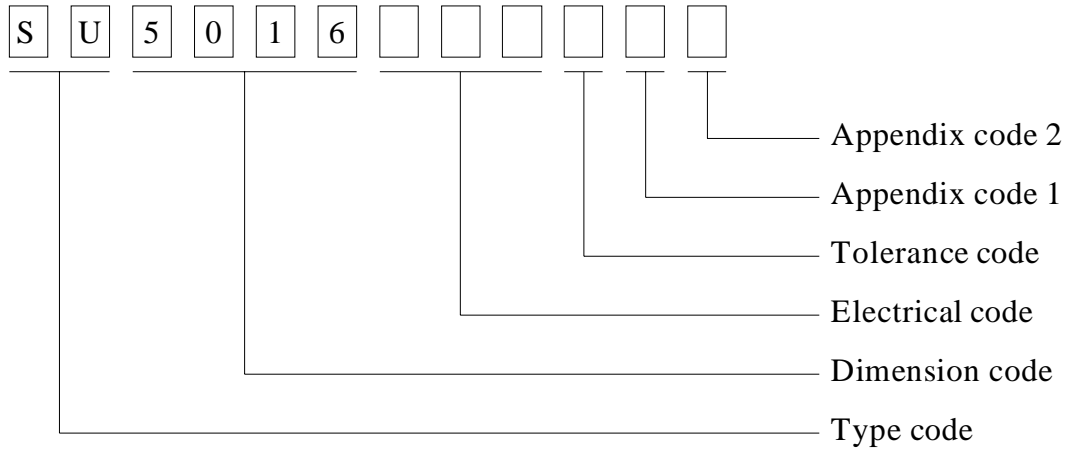
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**VII . DWG EXPRESSION :**



Appendix code 1 : S : Standard products

A~K , M~R , T~Z : Special products

L : Standard Lead Free products

1 ~ 9 : Special Lead Free products

Appendix code 2 :

Code	Inner package	Inner package Q'TY	Remark
A	Empty	Empty	
B	T / R ( Reel package )	1,000 pcs	

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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 : $150\pm 25^{\circ}\text{C}$ for 60 seconds Solder : Sn96.5 / Ag3 / Cu0.5 or equivalent Solder temp. : $235\pm 5^{\circ}\text{C}$ Flux : Rosin Dip time : $4\pm 1$ seconds												
Thermal shock test ( Temp. cycle )	Inductance shall not change more than $\pm 30\%$	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Room temp.</td> <td style="text-align: center;">—————▶</td> <td style="text-align: center;"><math>-25\pm 2^{\circ}\text{C}</math></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;">—————▶</td> <td style="text-align: center;"><math>85\pm 2^{\circ}\text{C}</math></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.	—————▶	$-25\pm 2^{\circ}\text{C}$	15 minutes		30 minutes	Room temp.	—————▶	$85\pm 2^{\circ}\text{C}$	15 minutes		30 minutes
Room temp.		—————▶	$-25\pm 2^{\circ}\text{C}$											
15 minutes			30 minutes											
Room temp.		—————▶	$85\pm 2^{\circ}\text{C}$											
15 minutes		30 minutes												
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 : $105\pm 2^{\circ}\text{C}$ Applied current : Per spec. Time : 500 hours													

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PROD. NAME	SHIELDED SMD POWER INDUCTOR	ABC'S DWG NO.	SU5016□□□□L□
		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	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  
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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

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OBMW2E174837  
September 8, 2000

@ - May be suffixed by LZ; # - May be suffixed by LZ, EL or LZL.  
 LZ - Signifies magnet wires twisted together; EL - signifies base coated magnet wire laid parallel with top coat applied overall; LZL - signifies 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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