

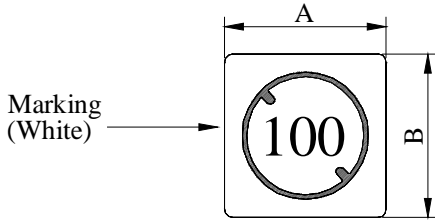
# SPECIFICATION FOR APPROVAL

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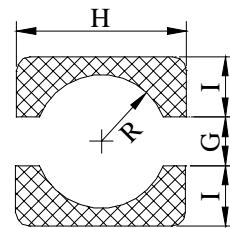
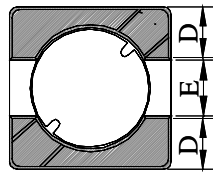
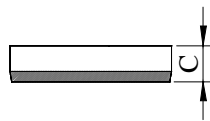
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PROD. NAME	<b>SHIELDED SMD POWER INDUCTOR</b>	ABC'S DWG NO. ABC'S ITEM NO.	SH3028□□□□L□
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## I . CONFIGURATION & DIMENSIONS :

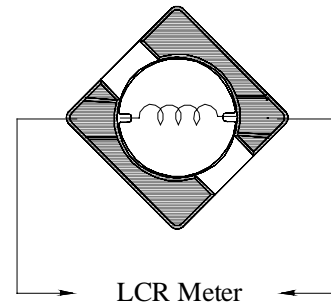
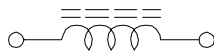


- A : 3.80 ±0.30 m/m
- B : 3.80 ±0.30 m/m
- C : 2.80 ±0.20 m/m
- D : 1.30 typ. m/m
- E : 1.20 typ. m/m
- G : 1.10 ref. m/m
- H : 4.30 ref. m/m
- I : 1.60 ref. m/m
- R : 1.40 ref. m/m



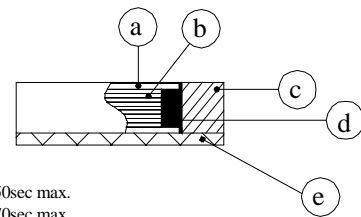
( PCB Pattern Suggestion )

## II . SCHEMATIC DIAGRAM :



## III . MATERIALS :

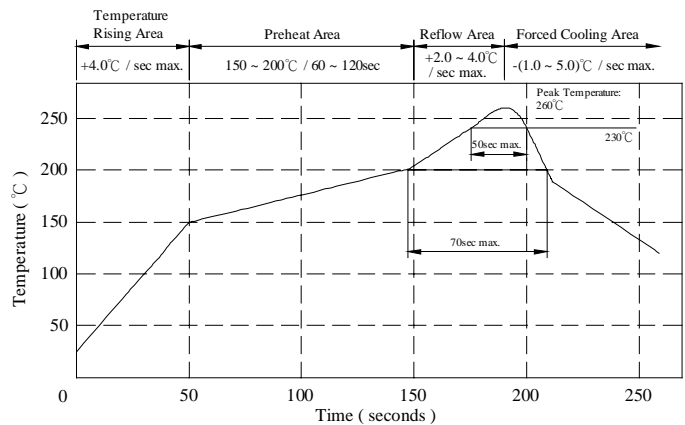
- a . Core : Ferrite DR core
- b . Core : Ferrite RI core
- c . Wire : Enamelled copper wire ( Class F )
- d . Adhesive : Epoxy resin
- e . Terminal : Ag/Ni/Sn
- f . Remark : Lead content 200ppm max.  
include ferrite



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 : 20°C typ.
- 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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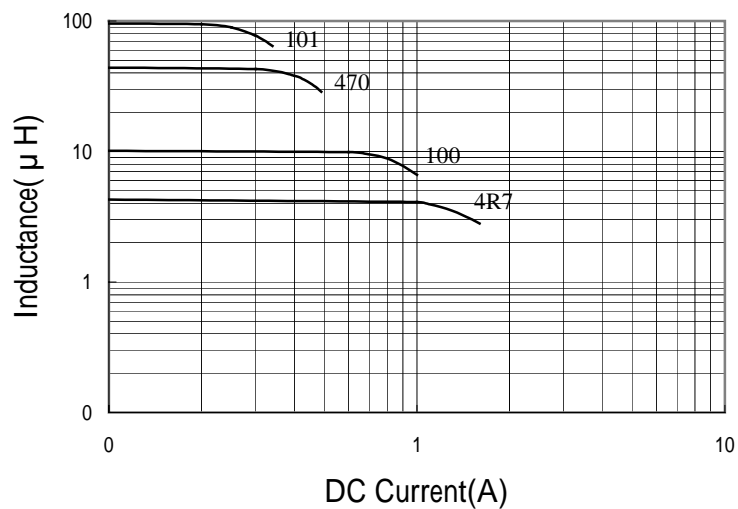
<b>PROD. NAME</b>	<b>SHIELDED SMD POWER INDUCTOR</b>	<b>ABC'S DWG NO.</b>	<b>SH3028□□□□L□</b>
		<b>ABC'S ITEM NO.</b>	

**V . ELECTRICAL CHARACTERISTICS :**

DWG No.	Inductance ( $\mu$ H)	Q ref.	Test Freq. (MHz)	SRF (MHz) typ.	RDC (m $\Omega$ )		Isat (mA) typ.	Irms (mA) typ.
					typ.	max.		
SH30283R3YL□	3.3 $\pm$ 30 %	7	7.96	55	40	52	1700	1950
SH30284R7YL□	4.7 $\pm$ 30 %	6	7.96	50	43	56	1400	1900
SH30286R8YL□	6.8 $\pm$ 30 %	7	7.96	45	82	108	1150	1300
SH3028100YL□	10.0 $\pm$ 30 %	8	2.52	30	96	125	900	1100
SH3028150YL□	15.0 $\pm$ 30 %	7	2.52	20	160	200	700	920
SH3028220YL□	22.0 $\pm$ 30 %	8	2.52	14	255	320	600	820
SH3028330YL□	33.0 $\pm$ 30 %	7	2.52	12	350	440	500	660
SH3028470YL□	47.0 $\pm$ 30 %	8	2.52	10	430	535	450	600
SH3028680YL□	68.0 $\pm$ 30 %	6	2.52	8	620	780	360	520
SH3028101YL□	100.0 $\pm$ 30 %	10	0.796	7	925	1150	300	480

- 1) . □ : Packaging Information. A : Bulk B : Taping Reel
- 2) . Inductance Test Freq. : 100KHz / 0.1V
- 3) . Isat base on  $\Delta L / L0A=35\%$  typ.
- 4) . I rms base on Temp. rise 20°C typ.

Inductance VS. DC Current curve



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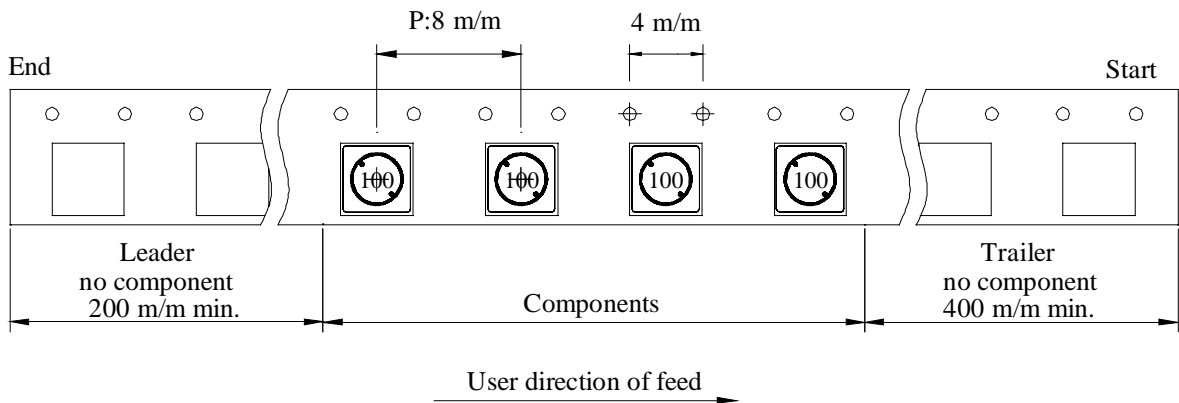
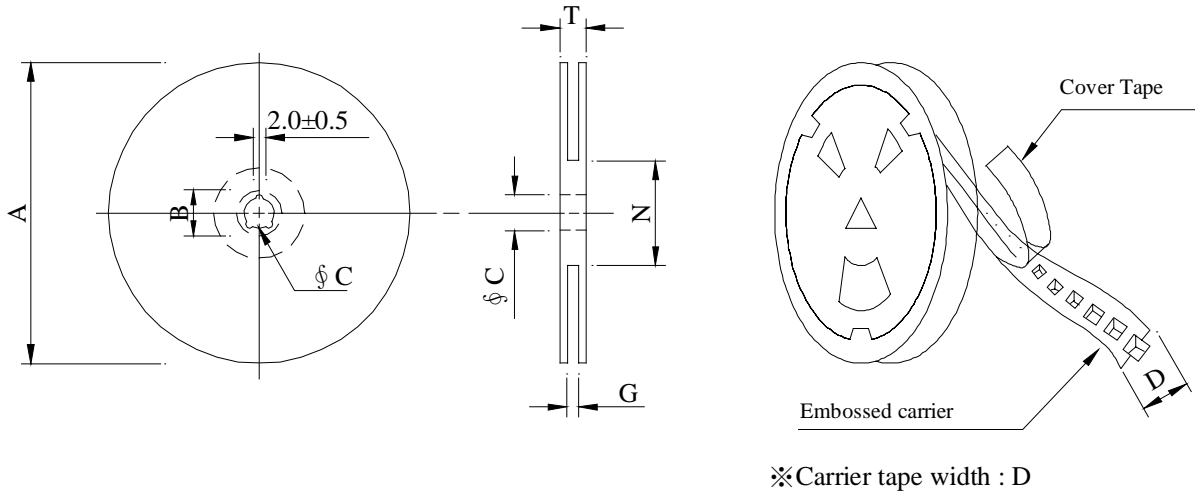
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	POWER INDUCTOR	ABC'S ITEM NO.	

## 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)
SH3028	500	140	07 - 12	20,000	8.0	42 x 41 x 24

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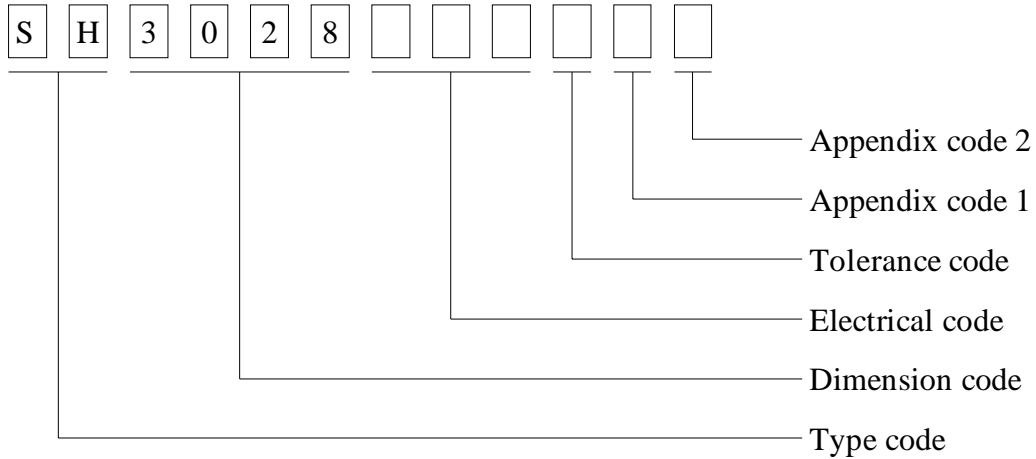
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**VII . DWG EXPRESSION :**



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 )	500 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±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="text-align: center;">Room temp. 15 minutes</td> <td style="text-align: center;">—————▶</td> <td style="text-align: center;">-25±2 °C 30 minutes</td> </tr> <tr> <td style="text-align: center;">Room temp. 15 minutes</td> <td style="text-align: center;">—————▶</td> <td style="text-align: center;">85±2 °C 30 minutes</td> </tr> </table> <p>Total : 50 cycles</p>	Room temp. 15 minutes	—————▶	-25±2 °C 30 minutes	Room temp. 15 minutes	—————▶	85±2 °C 30 minutes
Room temp. 15 minutes		—————▶	-25±2 °C 30 minutes					
Room temp. 15 minutes		—————▶	85±2 °C 30 minutes					
Humidity Resistance test		Temperature : 40±2°C Humidity : 90 ~ 95% Applied current : Per spec. Time : 500 hours						
High temp. Resistance test	Temperature : 105±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  
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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

@ - 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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OBMW2E174837  
September 8, 2000

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