

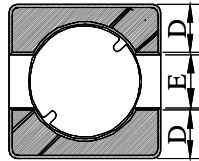
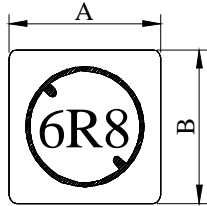
# SPECIFICATION FOR APPROVAL

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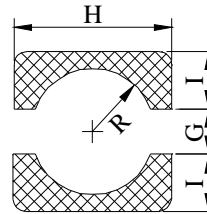
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PROD. NAME	SHIELDED SMD POWER INDUCTOR	ABC'S DWG NO.	SH3018□□□□L□-□□□
		ABC'S ITEM NO.	

## I . CONFIGURATION & DIMENSIONS :

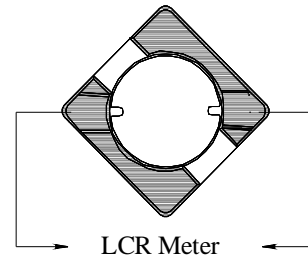


- A : 3.80±0.30 m/m
- B : 3.80±0.30 m/m
- C : 1.65±0.15 m/m
- D : 1.30 typ. m/m
- E : 1.20 typ. m/m
- G : 1.10 ref. m/m
- H : 4.30 ref. m/m
- I : 1.60 ref. m/m
- R : 1.30 ref. m/m



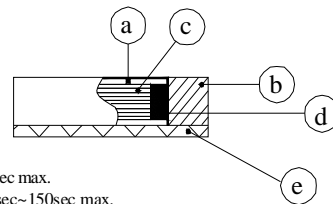
( PCB Pattern suggestion )

## II . SCHEMATIC DIAGRAM :



## III . MATERIALS :

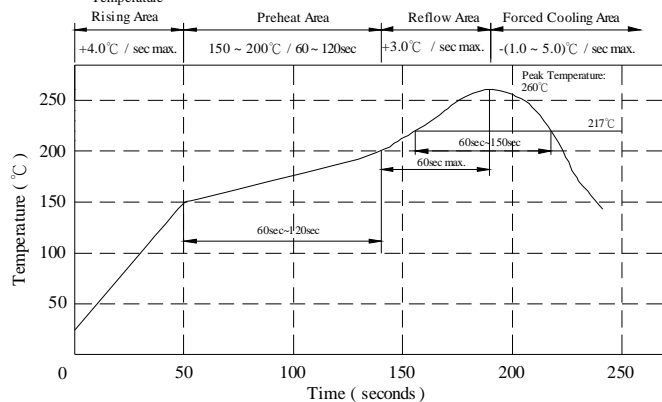
- a . Core : Ferrite DR core
- b . Core : Ferrite RI core
- c . Wire : Enamelled copper wire (class H)
- d . Adhesive : Epoxy resin
- e . Terminal : Ag/Ni/Sn
- f . Remark : Products comply with RoHS' requirements



Peak Temp : 260°C max.  
 Max. Peak Temp -5°C : 30sec max.  
 Max time above 217°C : 60sec~150sec max.

## IV . GENERAL SPECIFICATION :

- a . Temp. rise : 30°C max.
- b . Storage temp. : -40°C ----+125°C
- c . Operating temp. : -40°C ----+125°C
- d . Resistance to solder heat : 260°C.10 secs.



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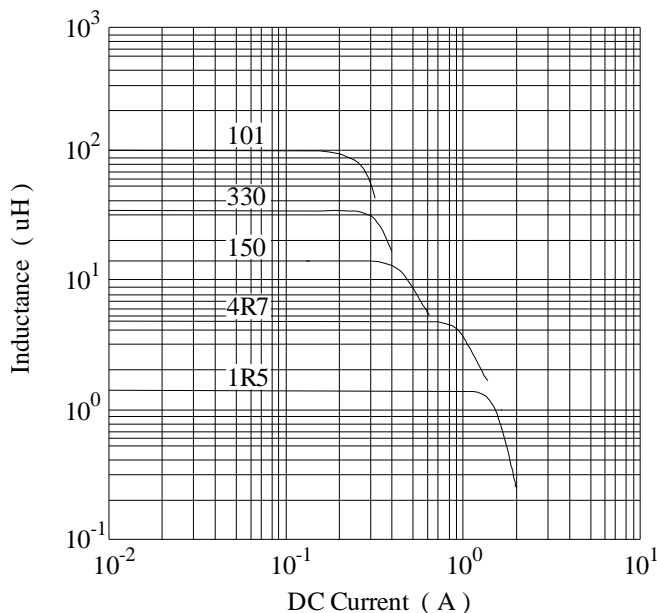
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## V . ELECTRICAL CHARACTERISTICS :

DWG No.	Inductance ( $\mu$ H)	SRF (MHz) typ.	RDC (m $\Omega$ )		Irms (mA) max.	Isat (mA) typ.
			max.	typ.		
SH30181R5YL□-□□□	1.5 $\pm$ 30%	118	47	35	1750	1550
SH30182R5YL□-□□□	2.5 $\pm$ 30%	79	58	45	1450	1250
SH30183R6YL□-□□□	3.6 $\pm$ 30%	79	85	65	1380	1100
SH30184R7YL□-□□□	4.7 $\pm$ 30%	61	105	85	1200	900
SH30186R8YL□-□□□	6.8 $\pm$ 30%	46	156	125	850	750
SH3018100YL□-□□□	10.0 $\pm$ 30%	39	205	165	740	560
SH3018150YL□-□□□	15.0 $\pm$ 30%	31	285	230	620	450
SH3018220YL□-□□□	22.0 $\pm$ 30%	29	450	360	510	360
SH3018330YL□-□□□	33.0 $\pm$ 30%	24	660	545	420	320
SH3018470YL□-□□□	47.0 $\pm$ 30%	21	1000	800	390	250
SH3018680YL□-□□□	68.0 $\pm$ 30%	13	1450	1200	320	220
SH3018101YL□-□□□	100.0 $\pm$ 30%	10	2400	2050	250	180

- 1). □ : Packaging Information... [A] : Bulk [B] : Taping Reel
- 2). "- □□□ " : Reference code
- 3). Inductance Test Freq. : 100KHz /0.1V
- 4). Irms base on Temp. rise 30°C max.
- 5). Isat base on  $\Delta L/L0A = 35\%$  typ.

@ Inductance VS. DC Superposition Characteristics



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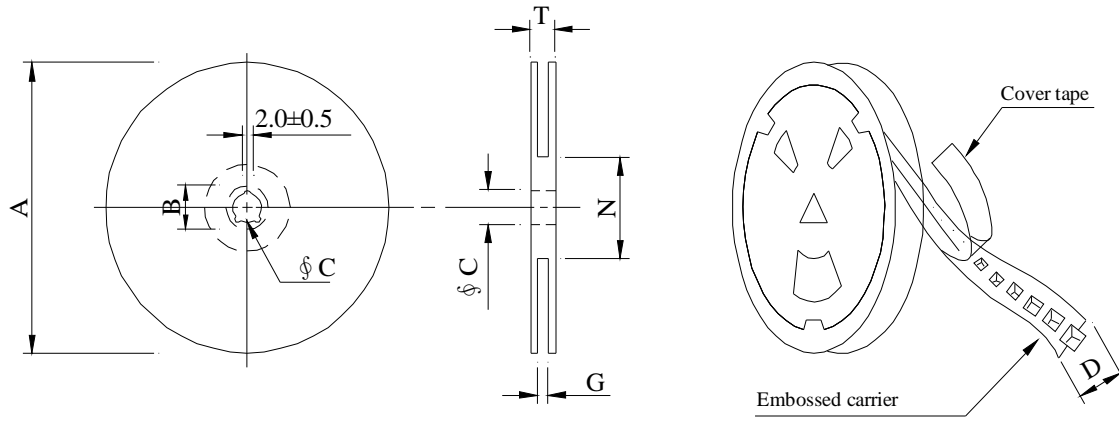
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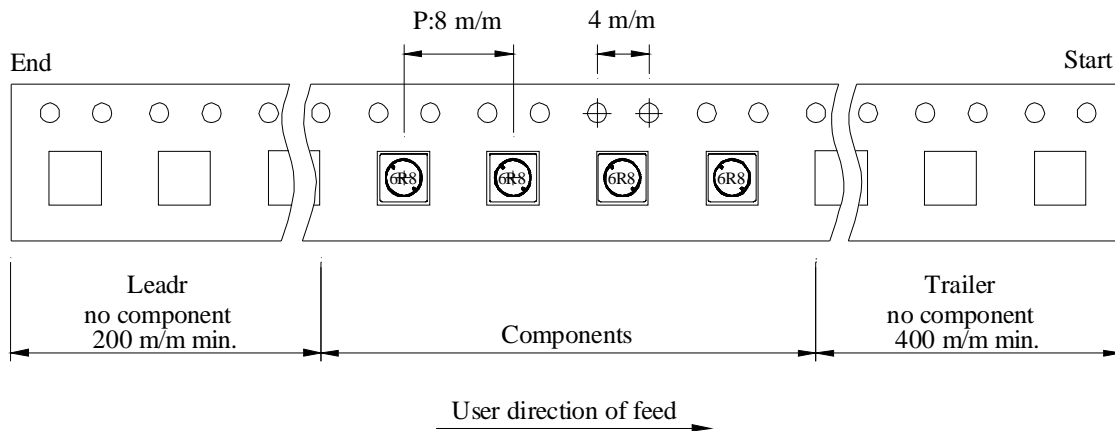
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## VI . PACKAGING INFORMATION :

### ( 1 ) Configuration



※ Carrier tape width : D



### ( 2 ) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
07 - 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)
SH3018	1,000	150	07 - 12	40,000	8.50	42 x 41 x 24

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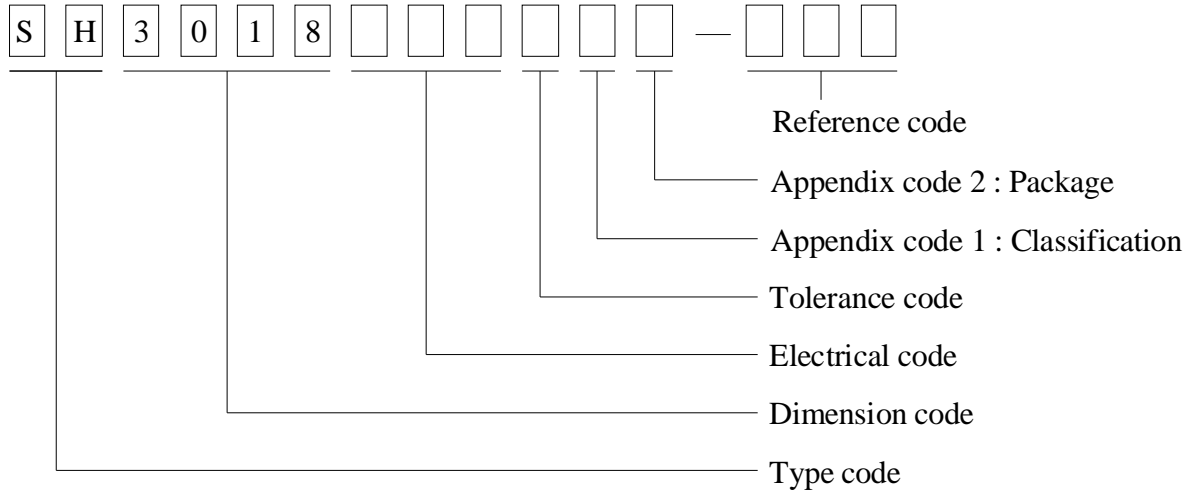
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**VIII . DWGING NUMBER EXPRESSION :**



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)	1,000 pcs	
C	T/R (Reel package)	1,000 pcs	

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**VIII . RELIABILITY TEST :**

Test item	Specification	Test condition						
Solderability	More than 95% of the terminal electrode shall be covered With fresh solder.	Preheat : 155°C / 4 hours. Solder : Sn96.5 / Ag3 / Cu0.5 or equivalent Solder temp. : 235±5°C Flux : Rosin Dip time : 5±0.5 seconds						
Thermal shock test ( Temp. cycle )	Electrical oharacteristics shall not change more than ±20%	<table style="width: 100%; border: none;"> <tr> <td style="border: none;">Room temp. 15 minutes</td> <td style="border: none; text-align: center;">→</td> <td style="border: none; text-align: center;">-40 °C 30 minutes</td> </tr> <tr> <td style="border: none;">Room temp. 15 minutes</td> <td style="border: none; text-align: center;">→</td> <td style="border: none; text-align: center;">+125 °C 30 minutes</td> </tr> </table> <p>Total : 50 cycles</p>	Room temp. 15 minutes	→	-40 °C 30 minutes	Room temp. 15 minutes	→	+125 °C 30 minutes
Room temp. 15 minutes	→	-40 °C 30 minutes						
Room temp. 15 minutes	→	+125 °C 30 minutes						
Humidity test		Temperature : 40±2°C Humidity : 90±5% Time : 1000 hours						
High temp. Resistance test		Temperature : 125±5°C Applied current : Per spec. Time : 96 hours						

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PROD.	SHIELDED SMD	ABC'S DWG NO.	SH3018□□□□L□-□□□
NAME	POWER INDUCTOR	ABC'S ITEM NO.	

**IX . UL CARD :**

OBMW2 October 06, 2005

Magnet Wire-Component

**ELEKTRISOLA (MALAYSLA) SDN BHD** E143312

JALAN DAMAI SATU JANDA BAIK 28750 BENTONG, PAHANG  
DARUL MAKMUR MALAYSIA

Mtl Dsg	Mark Dsg	Coating Type		ANSI Typ	Temp Class
		BC	OC		
Estersol 180	E180	Polyesterimide (solderable)	---	MW-77	180
Amldester 200	A200	Polyesterimide	---	MW-74	200
Polysol-N 155	PN155	Polyurethane	Nylon	MW-80, MW-28	155, 130
Polysol 155	P155, G155	Polyurethane	---	MW-79, MW-75	155, 130
Polysol 155g	Pg155	Polyurethane	---	MW-75	130
Polysol 155p	Pp155,Gp155	Polyurethane	---	MW-79	155
Polysol 160	P160	Polyurethane	---	MW-79	155
Polysol 180	P180,G180	Polyurethane	---	MW-82, MW-79	180, 155
Polysol 170	P170 or G170	Polyurethane	---	MW-79	155
Polysol-N 180	PN180	Polyurethane	Nylon	MW-83	180
Polysol P155p	P155p	Polyurethane	---	MW-79	155

Marking : Company name, material designation or marked designation and factory identification on package ok reel

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See General Information preceding These Recognitions  
For use only in equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.