

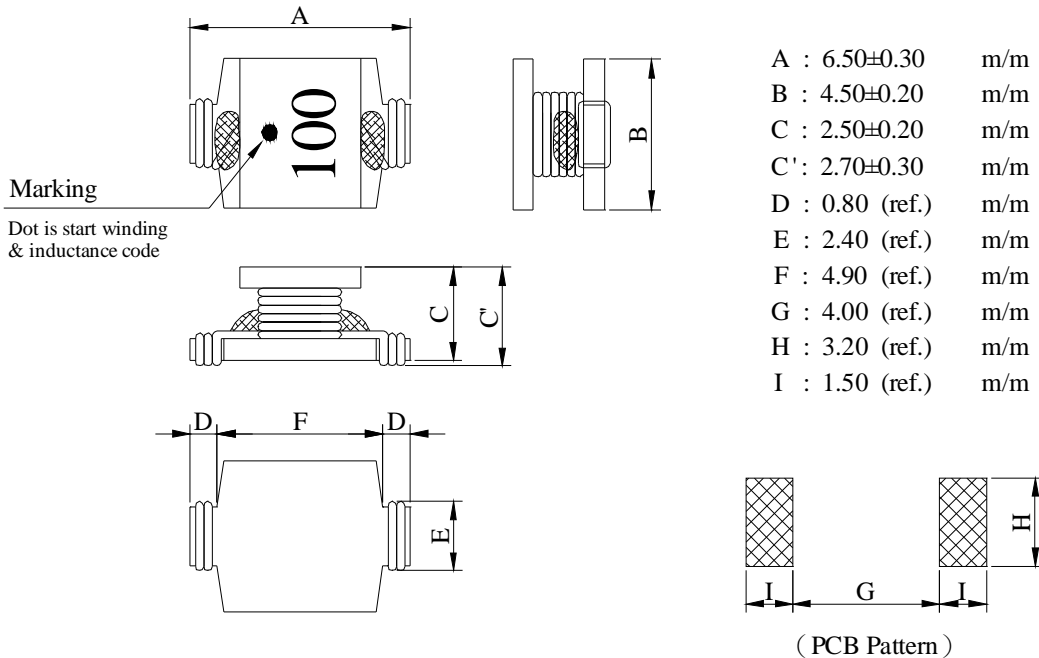
# SPECIFICATION FOR APPROVAL

REF : 20080527-A

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PROD. NAME	<b>SMD POWER INDUCTOR</b>	ABC'S DWG NO. ABC'S ITEM NO.	SQ0703□□□□L□-□□□
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## I . MECHANICAL DIMENSIONS :

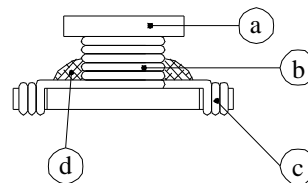


## II . SCHEMATIC DIAGRAM :

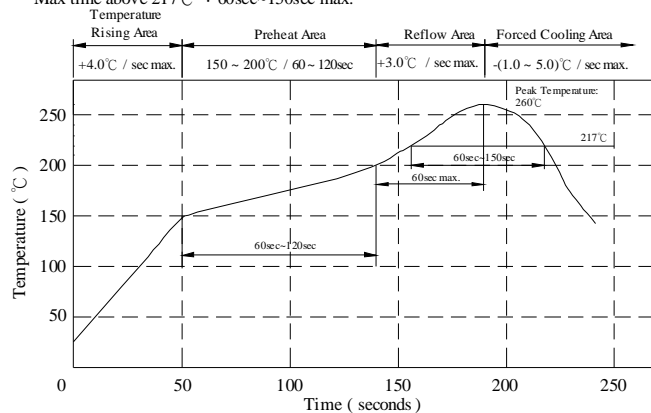


## III . MATERIALS LIST :

- a . Core : Ferrite core
- b . Wire : Enamelled copper wire (class F)
- c . Terminal : Cu / Sn
- d . Adhesive : Epoxy resin
- e . 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 : 20°C max.
- b . Storage temp. : -40°C ----+125°C
- c . Operating temp. : -40°C ----+105°C
- d . Rated current (I<sub>rms</sub>)  
Current cause inductance drop within 10%
- e . Resistance to solder heat : 260°C.10 secs.

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## V . ELECTRICAL CHARACTERISTICS :

DWG No.	Inductance (μH)	Q ref.	Test Freq (MHz)		SRF (MHz) nom.	RDC (Ω) max.	Irms 1 (mA)max. ΔT=20°C	Irms 2 (mA)max. ΔT=40°C
			L	Q				
SQ07031R0ML□-□□□	1.00±20%	25	100K/0.1V	7.96	160.0	0.042	2200	3200
SQ07031R2ML□-□□□	1.20±20%	25	100K/0.1V	7.96	145.0	0.047	2000	3000
SQ07031R8ML□-□□□	1.80±20%	25	100K/0.1V	7.96	105.0	0.052	1900	2700
SQ07032R2ML□-□□□	2.20±20%	24	100K/0.1V	7.96	95.0	0.060	1800	2600
SQ07032R7ML□-□□□	2.70±20%	23	100K/0.1V	7.96	80.0	0.065	1700	2500
SQ07033R3ML□-□□□	3.30±20%	23	100K/0.1V	7.96	65.0	0.075	1650	2350
SQ07033R9ML□-□□□	3.90±20%	22	100K/0.1V	7.96	70.0	0.080	1580	2250
SQ07034R7ML□-□□□	4.70±20%	20	100K/0.1V	7.96	60.0	0.100	1500	2100
SQ07035R6ML□-□□□	5.60±20%	20	100K/0.1V	7.96	56.0	0.105	1400	2000
SQ07036R8ML□-□□□	6.80±20%	20	100K/0.1V	7.96	45.0	0.115	1300	1900
SQ07038R2ML□-□□□	8.20±20%	20	100K/0.1V	7.96	40.0	0.150	1100	1500
SQ0703100KL□-□□□	10.00±10%	23	100K/0.1V	2.52	36.0	0.170	1000	1400
SQ0703120KL□-□□□	12.00±10%	20	100K/0.1V	2.52	36.0	0.180	900	1300
SQ0703150KL□-□□□	15.00±10%	23	100K/0.1V	2.52	30.0	0.240	750	1120
SQ0703180KL□-□□□	18.00±10%	20	100K/0.1V	2.52	30.0	0.280	700	1050
SQ0703220KL□-□□□	22.00±10%	20	100K/0.1V	2.52	26.0	0.300	650	950
SQ0703270KL□-□□□	27.00±10%	20	100K/0.1V	2.52	20.0	0.400	600	880
SQ0703330KL□-□□□	33.00±10%	17	100K/0.1V	2.52	20.0	0.450	560	820
SQ0703390KL□-□□□	39.00±10%	18	100K/0.1V	2.52	18.0	0.550	500	730
SQ0703470KL□-□□□	47.00±10%	20	100K/0.1V	2.52	15.0	0.720	400	640
SQ0703560KL□-□□□	56.00±10%	20	100K/0.1V	2.52	13.0	0.800	390	600
SQ0703680KL□-□□□	68.00±10%	18	100K/0.1V	2.52	13.0	0.900	380	560
SQ0703820KL□-□□□	82.00±10%	18	100K/0.1V	2.52	12.0	1.180	330	470
SQ0703101KL□-□□□	100.00±10%	33	100K/0.1V	0.796	11.0	1.560	270	400
SQ0703121KL□-□□□	120.00±10%	32	100K/0.1V	0.796	10.0	1.750	260	365
SQ0703151KL□-□□□	150.00±10%	30	100K/0.1V	0.796	9.0	2.000	250	340
SQ0703181KL□-□□□	180.00±10%	33	100K/0.1V	0.796	7.0	2.700	190	300
SQ0703221KL□-□□□	220.00±10%	31	100K/0.1V	0.796	7.0	3.000	180	280
SQ0703271KL□-□□□	270.00±10%	30	100K/0.1V	0.796	7.0	3.600	170	250
SQ0703331KL□-□□□	330.00±10%	33	100K/0.1V	0.796	6.0	4.800	160	220
SQ0703391KL□-□□□	390.00±10%	36	100K/0.1V	0.796	5.5	6.200	140	190
SQ0703471KL□-□□□	470.00±10%	33	100K/0.1V	0.796	5.0	7.000	130	180
SQ0703561KL□-□□□	560.00±10%	36	100K/0.1V	0.796	4.2	9.200	110	155
SQ0703681KL□-□□□	680.00±10%	32	100K/0.1V	0.796	4.0	10.500	100	145
SQ0703821KL□-□□□	820.00±10%	32	100K/0.1V	0.796	3.6	12.000	90	135
SQ0703102KL□-□□□	1000.00±10%	30	100K/0.1V	0.252	3.2	14.200	80	125

- 1). □ : Packaging information... [A]: Bulk [B]: Taping Reel
- 2). "-□□□": Reference code
- 3). Irms 1 base on Temp. rise 20°C max.
- 4). Irms 2 base on Temp. rise 40°C max.

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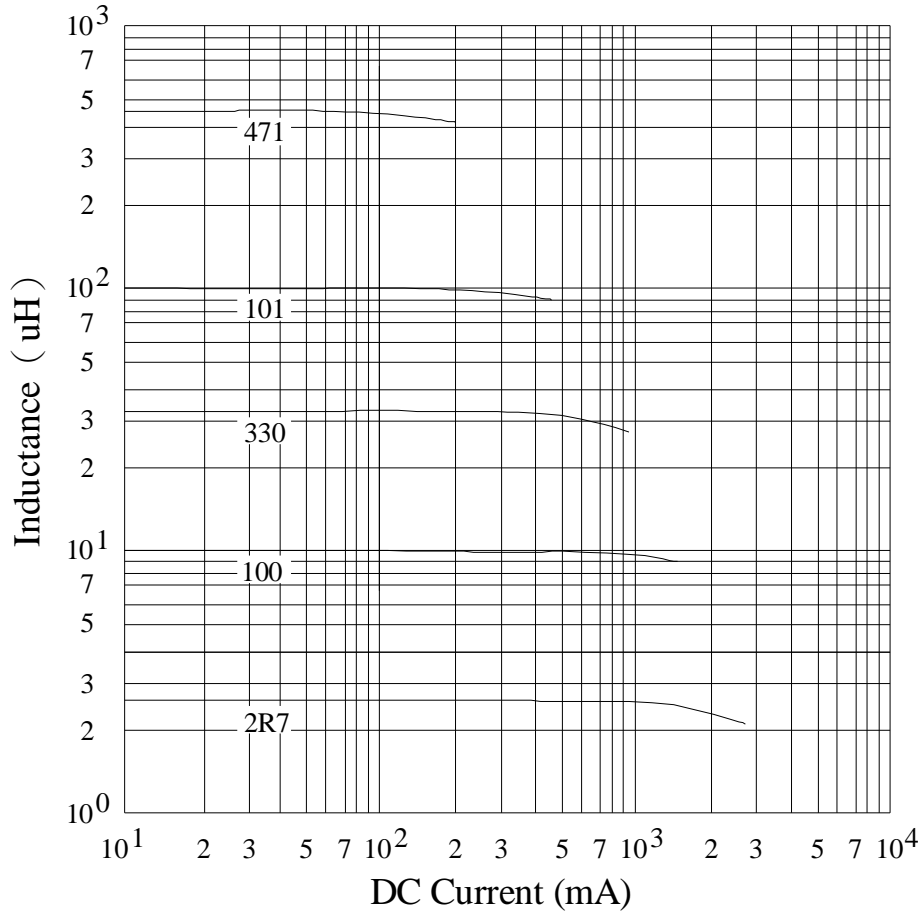
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VI . INDUCTANCE VS. DC CURRENT CURVE :



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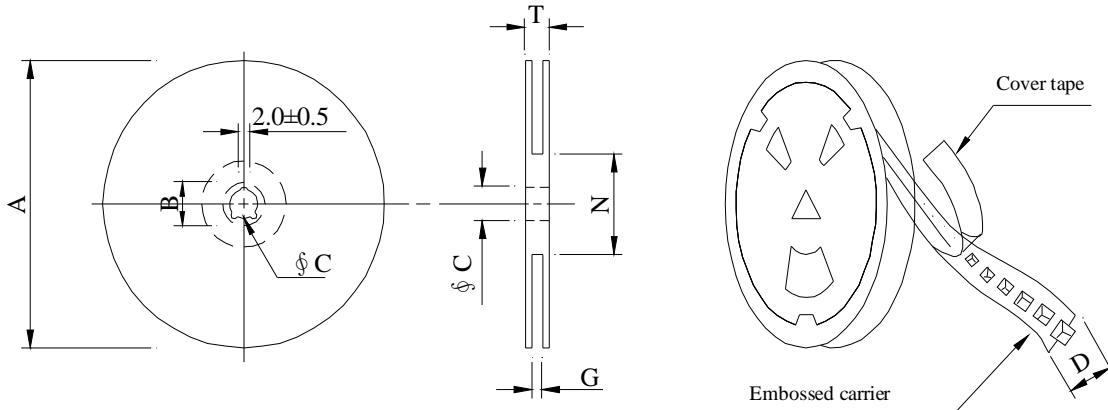
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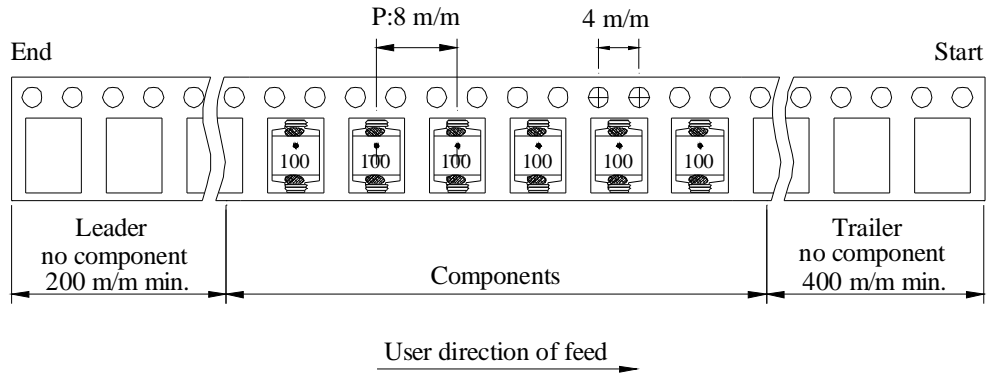
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## VII . PACKAGING INFORMATION :

### ( 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±0.5	12	14 <sup>+0</sup>	50 <sup>-0</sup>	18.4
13 - 12	330	21±0.8	13±0.5	12	14 <sup>+0</sup>	50 <sup>-0</sup>	18.4

### ( 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)
SQ0703	500	350	07 - 12	20,000	10.5	42 x 41 x 24
SQ0703	2,000	1300	13 - 12	16,000	13.0	38 x 37 x 22

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**IX . 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="text-align: center; border: none;">Room temp. 15 minutes</td> <td style="text-align: center; border: none;">→</td> <td style="text-align: center; border: none;">-40 °C 30 minutes</td> </tr> <tr> <td style="text-align: center; border: none;">Room temp. 15 minutes</td> <td style="text-align: center; border: none;">→</td> <td style="text-align: center; border: none;">+105 °C 30 minutes</td> </tr> </table> <p>Total : 50 cycles</p>	Room temp. 15 minutes	→	-40 °C 30 minutes	Room temp. 15 minutes	→	+105 °C 30 minutes
Room temp. 15 minutes	→	-40 °C 30 minutes						
Room temp. 15 minutes	→	+105 °C 30 minutes						
Humidity test		Temperature : 40±2°C Humidity : 90±5% Time : 1000 hours						
High temp. Resistance test		Temperature : 105±5°C Applied current : Per spec. Time : 96 hours						

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X . 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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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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OBMW2/E174837  
September 8, 2000

@ - May be suffixed by LZ; # - May be suffixed by LZ, EL or LZI.  
LZ - Signifies magnd 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 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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