

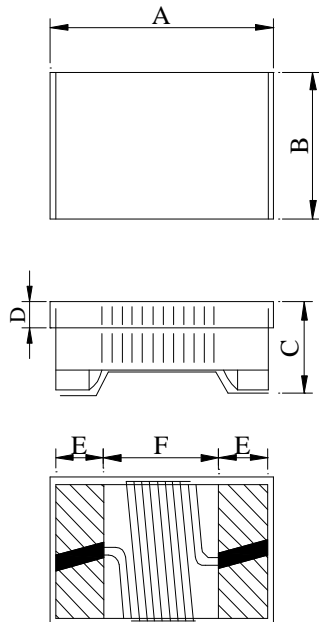
SPECIFICATION FOR APPROVAL

REF : 20090828-C

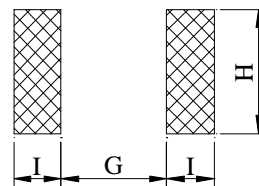
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PROD. NAME	WOUND CHIP INDUCTOR	ABC'S DWG NO.	SW1608□□□□L□-□□□
		ABC'S ITEM NO.	

I . CONFIGURATION & DIMENSIONS :



- A : 1.60±0.2 m/m
- B : 1.05±0.2 m/m
- C : 1.05±0.2 m/m
- D : 0.50 m/m
- E : 0.35 m/m
- F : 0.90 m/m
- G : 0.70 m/m
- H : 1.20 m/m
- I : 0.45 m/m



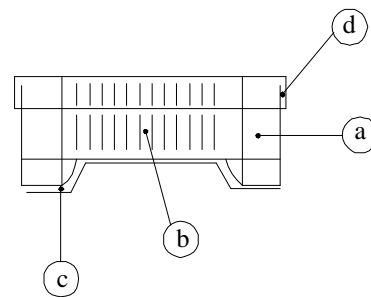
(PCB Pattern)

II . SCHEMATIC DIAGRAM :

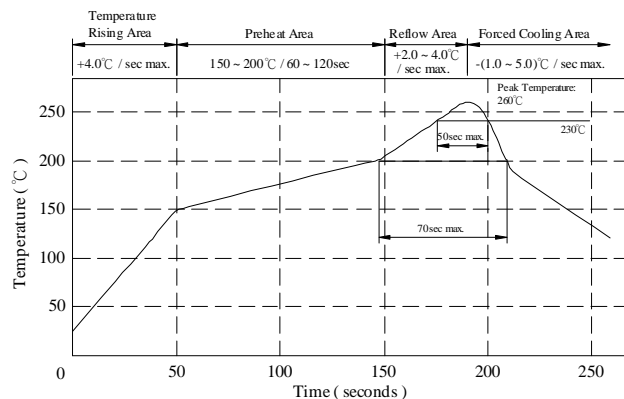


III . MATERIALS :

- a . Core : Ceramic
- b . WIRE : Enamelled copper wire (class H)
- c . Terminal : Mo / Mn + Ni + Au
- d . Encapsulate : Epoxy
- e . 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 . Temp rise : 15°C max.
- b . Rated current : Current cause inductance drop within 10% max.
- c . Storage temp. : -40°C ----+125°C
- d . Operating temp. : -40°C ----+125°C

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V . ELECTRICAL CHARACTERISTICS :

DWG No.	Inductance (nH)	Q min.	L/Q Test Freq. (MHz)	Q @900 MHz typ.	SRF (MHz) min.	RDC (Ω) max.	IDC (mA) max.
SW16081N6DL□-□□□	1.6±0.3	24	250	40	12500	0.030	700
SW16081N8DL□-□□□	1.8±0.3	16	250	35	12500	0.045	700
SW16082N0DL□-□□□	2.0±0.3	16	250	31	6900	0.080	700
SW16083N9DL□-□□□	3.9±0.3	22	250	51	6900	0.080	700
SW16084N3DL□-□□□	4.3±0.3	22	250	45	5900	0.080	700
SW16084N7DL□-□□□	4.7±0.3	20	250	47	5800	0.130	700
SW16085N1JL□-□□□	5.1± 5%	20	250	47	5700	0.140	700
SW16085N6JL□-□□□	5.6± 5%	16	250	40	5500	0.150	700
SW16086N8JL□-□□□	6.8± 5%	30	250	63	5800	0.110	700
SW16087N5JL□-□□□	7.5± 5%	28	250	64	4800	0.106	700
SW16088N2JL□-□□□	8.2± 5%	30	250	72	4600	0.100	700
SW16088N7JL□-□□□	8.7± 5%	28	250	66	4600	0.109	700
SW16089N1JL□-□□□	9.1± 5%	28	250	60	4000	0.135	700
SW16089N5JL□-□□□	9.5± 5%	28	250	62	4500	0.135	700
SW160810NJL□-□□□	10.0± 5%	30	250	66	4800	0.130	700
SW160811NJL□-□□□	11.0± 5%	33	250	68	4000	0.090	700
SW160812NJL□-□□□	12.0± 5%	35	250	72	4000	0.130	700
SW160813NJL□-□□□	13.0± 5%	38	250	75	4000	0.106	700
SW160815NJL□-□□□	15.0± 5%	35	250	68	4000	0.170	700
SW160816NJL□-□□□	16.0± 5%	34	250	66	3300	0.170	700
SW160818NJL□-□□□	18.0± 5%	38	250	77	3100	0.170	700
SW160820NJL□-□□□	20.0± 5%	38	250	72	3000	0.220	700
SW160822NJL□-□□□	22.0± 5%	38	250	70	3000	0.220	700
SW160824NJL□-□□□	24.0± 5%	37	250	75	2650	0.135	700
SW160827NJL□-□□□	27.0± 5%	40	250	75	2800	0.220	600
SW160830NJL□-□□□	30.0± 5%	45	250	57	2300	0.220	600

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DWG No.	Inductance (nH)	Q min.	L/Q Test Freq. (MHz)	Q @900 MHz typ.	SRF (MHz) min.	RDC (Ω) max.	IDC (mA) max.
SW160833NJL□-□□□	33.0± 5%	43	250	78	2300	0.220	600
SW160836NJL□-□□□	36.0± 5%	43	250	70	2200	0.250	600
SW160839NJL□-□□□	39.0± 5%	43	250	66	2200	0.250	600
SW160843NJL□-□□□	43.0± 5%	38	250	62	2000	0.280	600
SW160847NJL□-□□□	47.0± 5%	40	200	65	2000	0.280	600
SW160851NJL□-□□□	51.0± 5%	40	200	66	1900	0.310	600
SW160856NJL□-□□□	56.0± 5%	40	200	66	1900	0.310	600
SW160862NJL□-□□□	62.0± 5%	40	200	60	1700	0.340	600
SW160868NJL□-□□□	68.0± 5%	40	200	57	1700	0.340	600
SW160872NJL□-□□□	72.0± 5%	35	150	60	1700	0.490	400
SW160882NJL□-□□□	82.0± 5%	35	150	58	1700	0.540	400
SW160890NJL□-□□□	90.0± 5%	35	150	52	1700	0.540	400
SW1608R10JL□-□□□	100.0± 5%	35	150	51	1400	0.630	400
SW1608R11JL□-□□□	110.0± 5%	35	150	22	1400	0.630	400
SW1608R12JL□-□□□	120.0± 5%	35	150	45	1300	0.650	300
SW1608R13JL□-□□□	130.0± 5%	35	150	40	1000	0.920	280
SW1608R15JL□-□□□	150.0± 5%	35	150	33	1000	0.920	280
SW1608R18JL□-□□□	180.0± 5%	30	100	26	1000	1.250	240
SW1608R20JL□-□□□	200.0± 5%	30	100	23	1000	1.250	240
SW1608R21JL□-□□□	210.0± 5%	27	100	23	1000	1.700	200
SW1608R22JL□-□□□	220.0± 5%	30	100	23	1000	1.700	200
SW1608R24JL□-□□□	240.0± 5%	30	100	15	1000	1.700	200
SW1608R27JL□-□□□	270.0± 5%	30	100	10	1000	1.800	170
SW1608R33JL□-□□□	330.0± 5%	25	100	-	450	2.000	150
SW1608R39JL□-□□□	390.0± 5%	20	100	-	350	2.000	170

1). □ : Packaging Information... [A] : Bulk [B] : Taping Reel

2). "-□□□":Reference code

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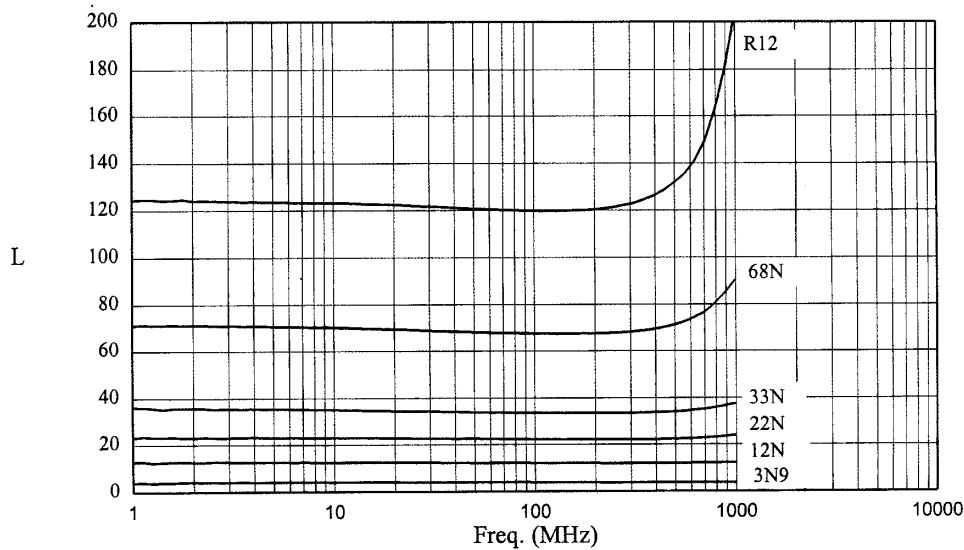
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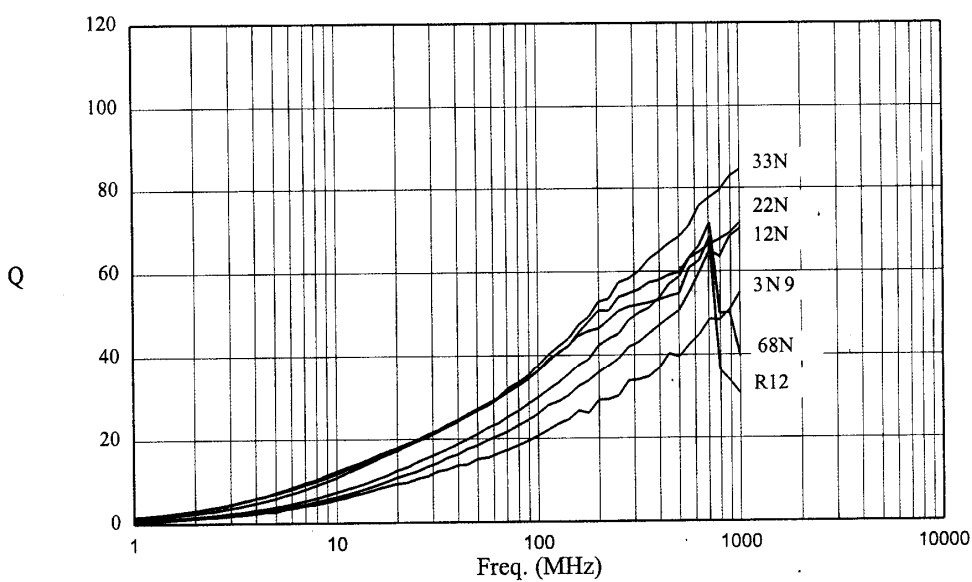
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VI . CURVE :

L vs Freq Plot



Q vs Freq Plot



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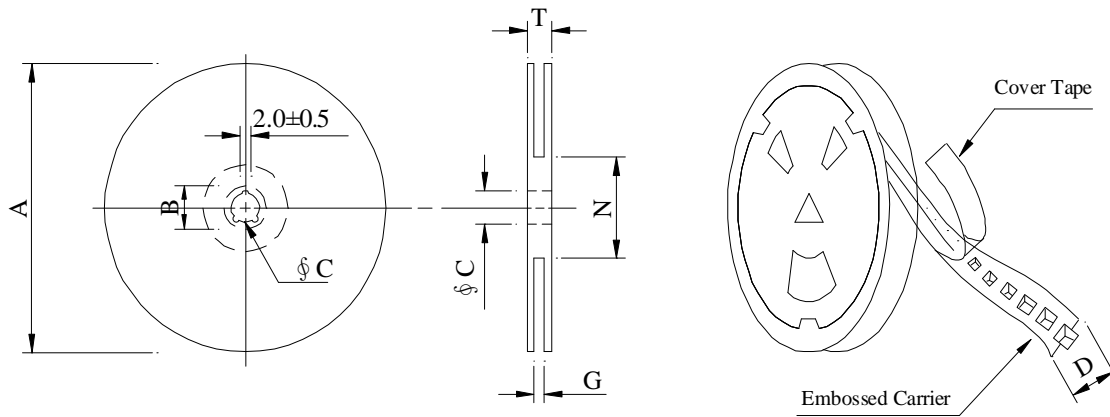
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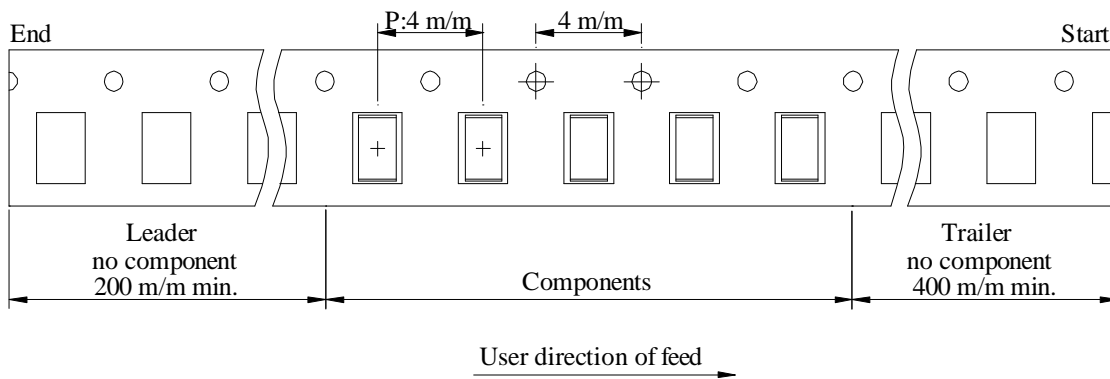
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VII . PACKAGING INFORMATION :

(1) Configuration



※Carrier tape width : D



(2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
07 - 08	178	21±0.8	13	8	10 ⁺⁰	50 ⁻⁰	12.5

(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)
SW1608	3,000	95	07 - 08	150,000	7.30	41 x 39x 22

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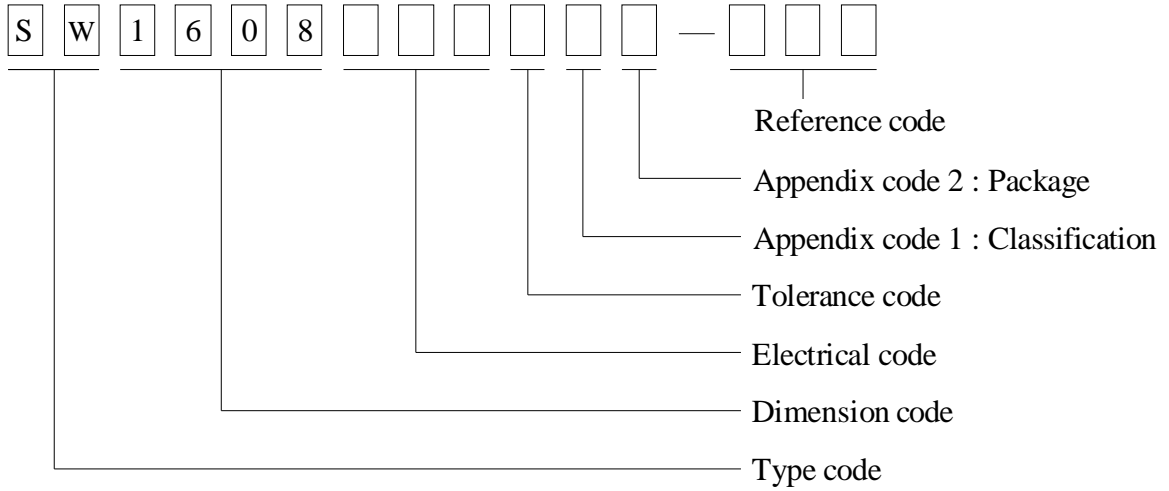
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VIII . DWGING NUMBER EXPRESSION :



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)	3000 pcs	

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IX . RELIABILITY TEST :

Test items	Specifications	Test conditions / Test methods
<i>ELECTRICAL PERFORMANCE TEST</i>		
L	Refer to standard electrical characteristic list	HP-4291A With HP-16193 Test fixture .
Q		HP-4291A With HP-16193 Test fixture.
SRF		HP-8753E
RDC		HP-4338B
Rated current IDC		Applied the current to coils the inductance change shall be less than 10% to initial value and temperature rise shall not be more than 20°C
Temperature rise test	20°C max.	1.Applied the allowed DC current for 10 minutes. 2.Temperature measure by digital surface thermometer .
Over load test	After test , Inductors shall be no evidence of electrical and mechanical damage	Applied 2 times of rated allowed DC current to inductor for a period of five minutes .
Withstanding voltage test	After test , Inductors shall be no evidence of electrical and mechanical damage	500VAC between inductor terminals and center of case for a maximum 1 minute.
Insulation resistance test	1000 MΩ min.	100 VDC between inductor terminals and center case.
<i>MECHANICAL PERFORMANCE TEST</i>		
Vibration test (Low frequency)	1. There shall be no case deformation or change in appearance.	1. Amplitude : 1.5 m/m 2. Frequency : 10-55-10Hz/min. 3. Direction : X,Y,Z 4. Duration : 2HRS/X,Y,Z
Vibration test (Low frequency)	2. Inductance shall not change more than ±5% 3. Q shall not change more than ±10%	Inductors shall be dropped 10 times from a height of 1m onto 3cm wooden board .
Resistance to soldering heat		Inductors shall be reflowed onto a P.C. board using solder paste. Solder process shall be 230°C for 20±2 seconds and 260°C for 5±2 seconds
Solderability test	The metalized area must have 90% min. solder coverage	Dip pads in flux (Alpha 100 or equiv.) and dip in solder pot at 230±5°C for 5 seconds

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Component adhesion (Push test)	20N : 2012 , 2520 , 3225 10N : 1608 5N : 1005	The device shall be reflow soldered (230±5°C for 10 seconds) to a tinned copper substrate. A dynamometer force gauge shall be applied to the side of the component . The device must withstand the minimum force indicated at left without a failure of the termination to board attachment.
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CLIMATIC TEST

Temperature characteristic	1. There shall be no case deformation or change in appearance. 2. Inductance shall not change more than ±5% 3. Q shall not change more than ±10%	-40°C ~ 125°C
Humidity test		Temp. : 50±2°C R.H. : 90~95 % Time. : 96±2 hours
Low temperature storage		Temp. : -40±2°C Time. : 48±2 hours
Thermal shock test		-40°C for 30 minutes. +125°C for 30 minutes. Total : 10 cycles
High temperature storage		Temp. : 125±2°C Time. : 48±2 hours

Note : Inductors are to be tested after 1 hour at room temperature.

LIFE TEST

High tempera - ture load life test	Inductors shall not have a shorted or open winding.	1.Temp : 85±2°C 2.Time : 1000±12 hours 3.Load : Allowed DC current
Humidity load life		1.Temp : 40±2°C 2.R.H. : 90-95% 3.Time : 1000±12 hours 4. Load : Allowed DC current

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X . UL CARD :

OBMW2 August 27, 1999

Magnet Wire-Component

ELEKTRISOLA (MALAYSLA) SDN BHD E143312

IALAN DAMN SATU IANDA BAIK 28750 BENTONG, PAHANG

DARUL MAKMUR MALAYSIA

Mtl Dsg	Mark Dsg	Coating Type		ANSI Typ	Temp Class
		BC	OC		
Estersol 160	E180	Polyesterimide (solderable)	—	MW-77	180
Amldester 200	A200	Polyesterimide	—	MW-74	200
Polysol-N 155	PN155	Polyurethane	Nylon	MW-80, MW-28	155, 100
Polysol 155	P155	Polyurethane	—	MW-79, MW-79	155, 130
Polysol 155g	Pg155	Polyurethane	—	MW-79	130
Polysol 155p	Pp155,Gp155	Polyurethane	—	MW-79	155
Polysol 160	P160	Polyurethane	—	MW-79	155
Polysol 180	P180	Polyurethane	—	MW-79	155
Polysol 170	P170 or G170	Polyurethane	—	MW-79	156
Polysol-N 180	PN180	Polyurethane	Nylon	—	180

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

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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