

## *Data Sheet*

Customer: \_\_\_\_\_

Product: SMD Micro Spring Air Coil – RSA series \_\_\_\_\_

Size : 0906/1606 \_\_\_\_\_

Issued Date: 20-Jul.-2015 \_\_\_\_\_

Edition: Ver. 1 \_\_\_\_\_

### Record of change

Date	Ver.	Description	Page
20-Jul.-2015	1		

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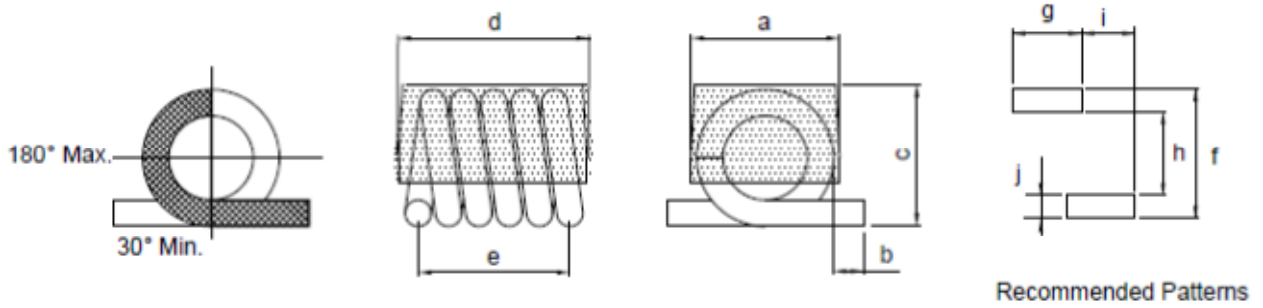
Prepared by	Checked by	Approved by	Accepted by (customer)
20-Jul.-2015	20-Jul.-2015	20-Jul.-2015	
<i>Andy Hsu</i>	<i>Hwa Wu</i>	<i>Hwa Wu</i>	

**Feature:**

- Small air core inductors feature high Q and tight tolerances
- Solder coated leads ensure reliable soldering.
- 9 inductance values from 1.65 to 12.55 nH
- Flat top and bottom for reliable pick and place and mechanical stability
- 

※Graphic is only for dimensionally application.

**1. MECHANICAL DIMENSION:**



UNIT :mm

Size	a	b	c	d	e
0906	1.42±0.13	0.89±0.25	1.37±0.15	2.21±0.25	1.83±0.25
1606	1.42±0.13	0.89±0.25	1.37±0.15	4.04±0.30	3.66±0.25

Land Pattern: mm

Size	f	g	h	i	j
0906	2.62	2.46	1.04	1.02	0.79
1606	4.45	2.46	2.87	1.02	0.79

## 2. ELECTRICAL:

PART NO.	Turns	Tolerance	Inductance (nH)	Q (MIN)	Test Freq (MHZ)	DCR MAX (mΩ)	SRF (GHZ) TYP	Rated current(A) MAX
RSA0906T-02A□□	2	K	1.65	100	800	4.0	10.0	1.6
RSA0906T-03A□□	3	K, J	2.55	100	800	5.0	8.2	1.6
RSA0906T-04A□□	4	G, J, K	3.85	100	800	6.0	7.5	1.6
RSA0906T-05A□□	5	G, J	5.45	100	800	8.0	7.0	1.6

PART NO.	Turns	Tolerance	Inductance (nH)	Q (MIN)	Test Freq (MHZ)	DCR MAX (mΩ)	SRF (GHZ) TYP	Rated current(A) MAX
RSA1606T-06B□□	6	G, J	5.60	100	800	9.0	6.5	1.6
RSA1606T-07B□□	7	G, J	7.15	100	800	10.0	6.0	1.6
RSA1606T-08B□□	8	G, J	8.80	100	800	12.0	6.0	1.6
RSA1606T-09B□□	9	G, J	9.85	100	800	13.0	5.2	1.6
RSA1606T-10B□□	10	G, J	12.55	100	800	14.0	4.6	1.6

### NOTE :

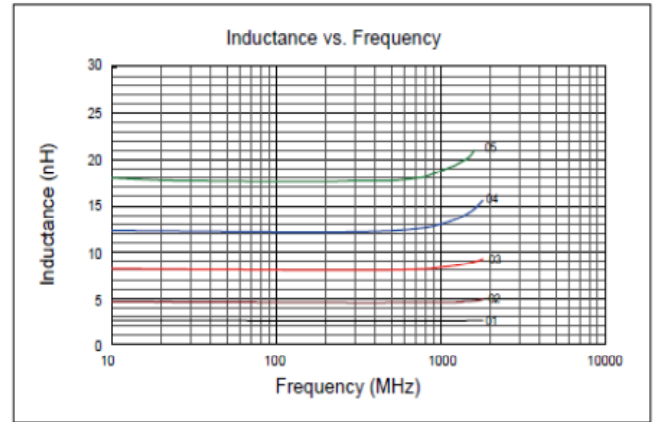
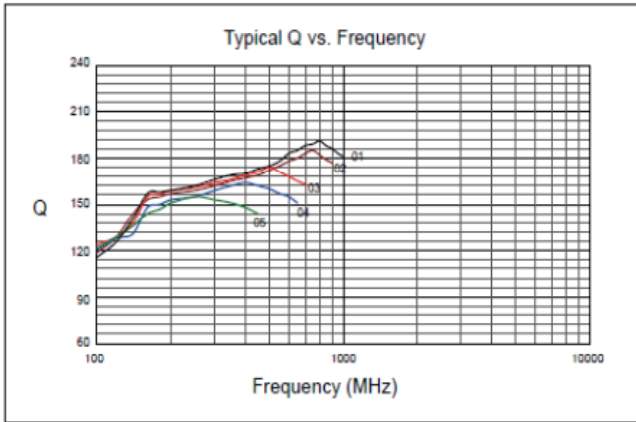
1. Tolerance : G:±2%,J:±5%, K:±10%
2. Inductance & Q measured on the HP4291B. With HP16193A test fixture.
3. SRF measured on HP8753E/HP8720D or equivalent.
4. RDC measured on Chroma 16502 or equivalent.
5. Operating temperature range: -40°C to +125°C .
6. Storage temperature :-40°C to +85°C
7. For temperature rise : 15°C .
8. MSL : LEVEL 1

Last two digits of the part no. :

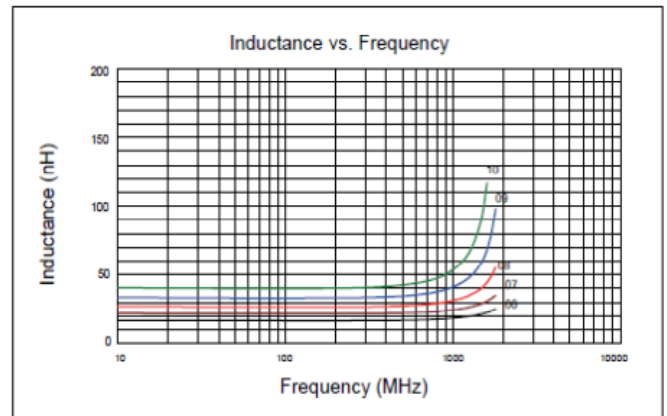
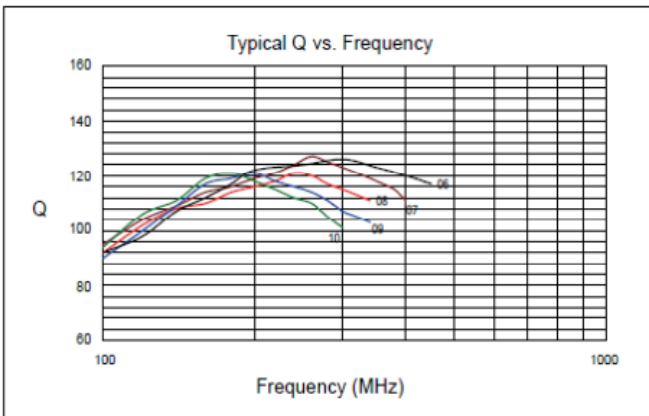
□: Tolerance □: Internal Code

### 3. CHARACTERISTIC CURVES

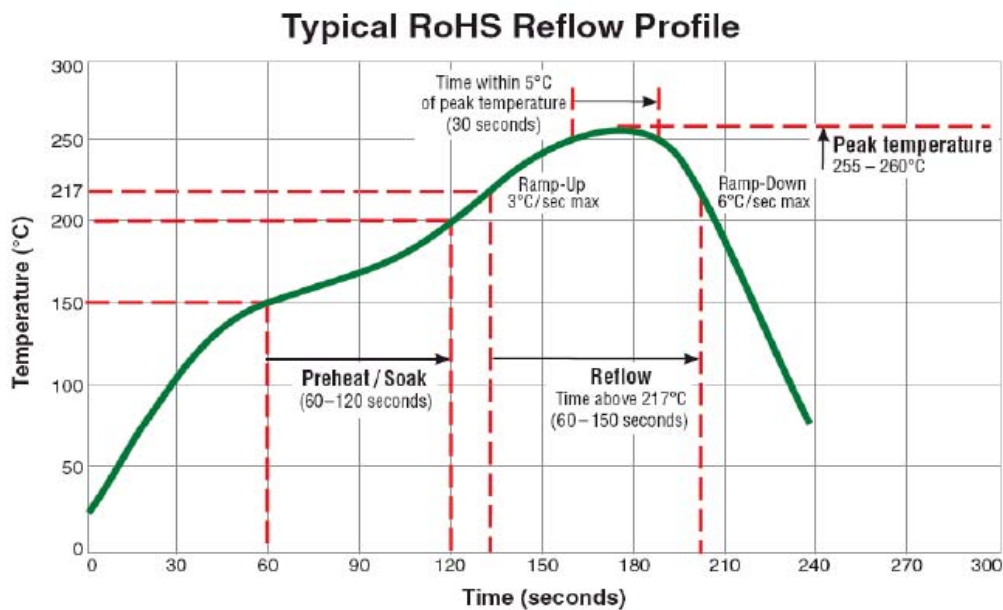
#### RSA0906



#### RSA1606



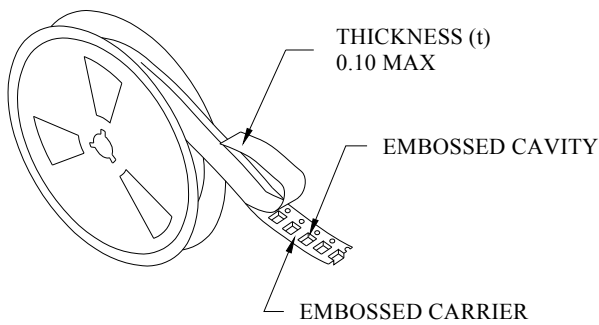
### 4. Typical RoHS Reflow Profile



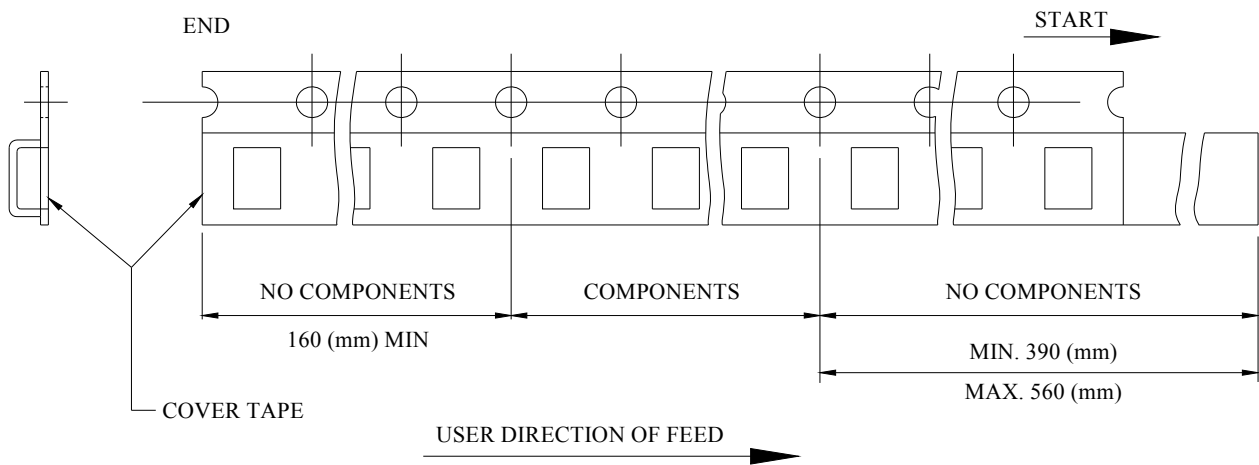
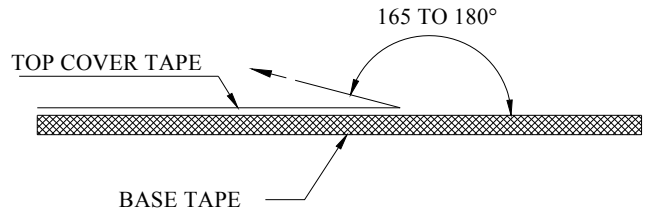
## 5. RELIABILITY TEST

Test Item	Test Condition	Standard Source
Salt Spray Test	Chamber temperature 35°C, the concentration of salt spray 5% (Total 24 hours).	MIL-STD-202G Method 101E Test Condition C
Humidity Test	+40°C±2°C, humidity of 90%±5% (total 96 hours).	MIL-STD-202G Method 103B Test Condition B
High Temperature Storage	1.Temperature: +125°C±2°C 2.Test time:48±2hrs	IEC 68-2 Test Condition B
Low Temperature Storage	1.Temperature: -40°C±2°C 2.Test time: 48±2hrs	IEC 68-2 Test Condition A
Thermal Shock	+125°C±5°C (30 minutes) ~ -40 ± 5°C (30 minutes), temperature switch time: 5 minutes (total 50 cycles).	MIL-STD-202G Method 107G Test Condition B-2
Life Test	+75°C±2°C (300Hours)	MIL-STD-202G Method 108A Test Condition D
Vibration Test	10-55-10HZ, amplitude: 1.5mm, direction: X, Y, Z axes, each axis 2 hours (total 6 hours).	MIL-STD-202G Method 201A
Solder Heat Resistance Test	DIP: Soak in 260°C solder pot, stay 10Sec Reflow: Keep 250 ±5°C,30 ±5Sec in air, Temperature ramp:+1~4°C/sec; Above1 83°C, must keep 90 s - 120 s.	MIL-STD-202G Method 210F Test Condition B(DIP) Test Condition (Reflow)
Terminal Pull Strength Test	1/2, 1, 2, 3, 5, 10 Pound, as products terminal feature.	MIL-STD-202G Method 211A Test Condition A
Solder Ability Test	Soak in 245 °C solder pot of 3Sec, PAD must have 95% above coverage.	J-STD-003B
Terminal Push Strength Test	No special requirements: 5N thrust to maintain 10 Sec.	JIS C5321:1997

## 6. PACKAGING

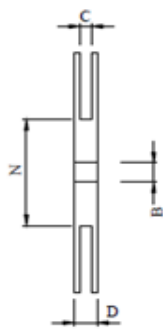
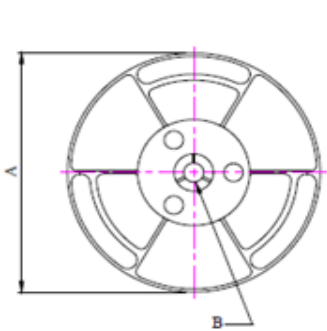


- THE FORCE FOR TEARING OFF COVER TAPE IS 10 TO 130 GRAMS IN THE ARROW DIRECTION.

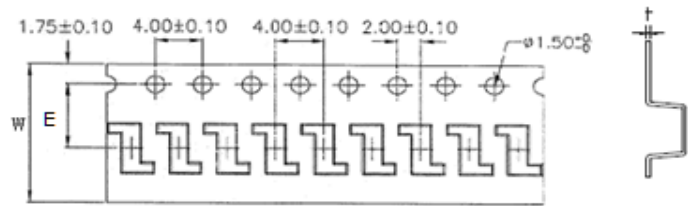


### ■ CARRIER TAPE REELS (mm)

MATERIAL: PLASTIC



### ■ DIMENSIONS OF CARRIER TAPE (mm)



UNIT:mm

ITEM	A	B	C	D	E	N	W	t
0906	180 max	13.0+0.5/-0.2	12.4+2.0/-0	12.5+1.5/-0	1.75±0.10	75 min	8.0±0.20	0.23±0.05
1606.	180 max	13.0+0.5/-0.2	12.4+2.0/-0	16.8 max	5.50±0.05	50 min	12.0±0.30	0.35±0.05