

Data Sheet

Customer: _____

Product: SMD Midi Spring Air Coil – DSA series _____

Size : 1915 _____

Issued Date: 27-Jul.-2015 _____

Edition: Ver. 1 _____

Record of change

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

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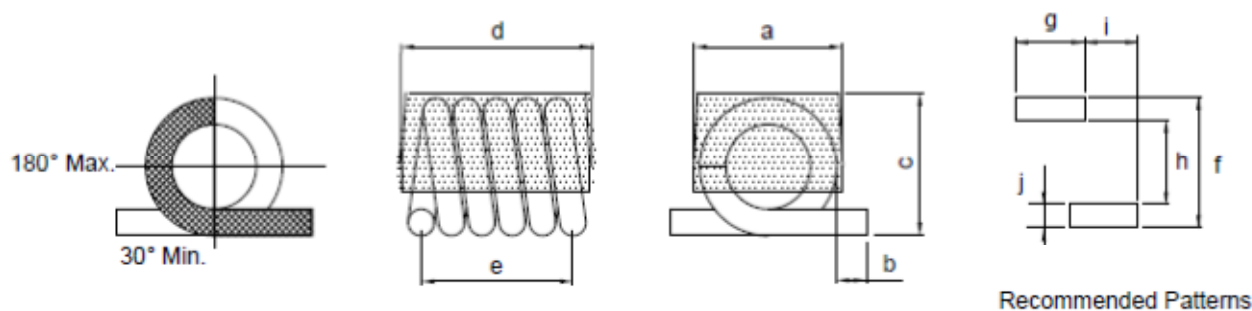
Prepared by	Checked by	Approved by	Accepted by (customer)
27-Jul.-2015	27-Jul.-2015	27-Jul.-2015	
Andy Hsu	Hwa Wu	Hwa Wu	

Feature:

- Small air core inductors feature high Q and tight tolerances
- Solder coated leads ensure reliable soldering.
- 10 inductance values from 2.5 to 43 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
1915	3.81 (Max.)	1.53±0.39	4.2 (Max.)	4.83 (Max.)	4.32±0.39

Land Pattern: mm

Size	f	g	h	i	j
1915	5.80	5.16	2.85	2.62	1.48

2. ELECTRICAL:

PART NO.	Inductance (nH)	Tolerance	Q (MIN)	Q (TYP)	Test Freq (MHz)	DCR MAX (mΩ)	SRF (GHz) MIN	Rated current(A) MAX
DSA1915T-22□□	22	G, J, K	100	135	150	4.2	3.2	3.0
DSA1915T-27□□	27	G, J, K	100	135	150	4.0	2.7	3.5
DSA1915T-33□□	33	G, J, K	100	130	150	4.8	2.5	3.0
DSA1915T-39□□	39	G, J, K	100	135	150	4.4	2.1	3.0
DSA1915T-47□□	47	G, J, K	100	135	150	5.6	2.1	3.0
DSA1915T-56□□	56	G, J, K	100	125	150	6.2	1.5	3.0
DSA1915T-68□□	68	G, J, K	100	120	150	8.2	1.5	2.5
DSA1915T-82□□	82	G, J, K	100	120	150	9.4	1.3	2.5
DSA1915T-100□□	100	G, J, K	100	115	150	12.3	1.2	1.7
DSA1915T-120□□	120	G, J, K	100	125	150	17.3	1.1	1.5

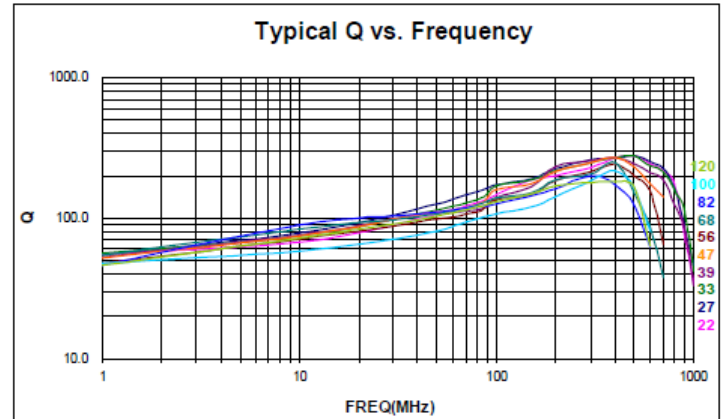
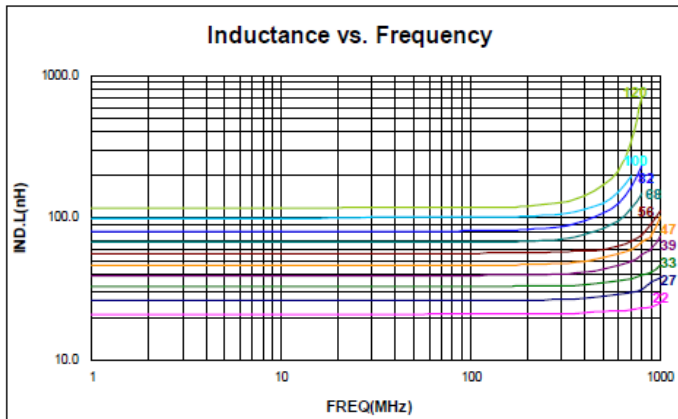
NOTE :

1. Tolerance : G:±2%,J:±5%, K:±10%
2. Inductance & Q measured on the HP4291B
3. SRF measured on HP8753E 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

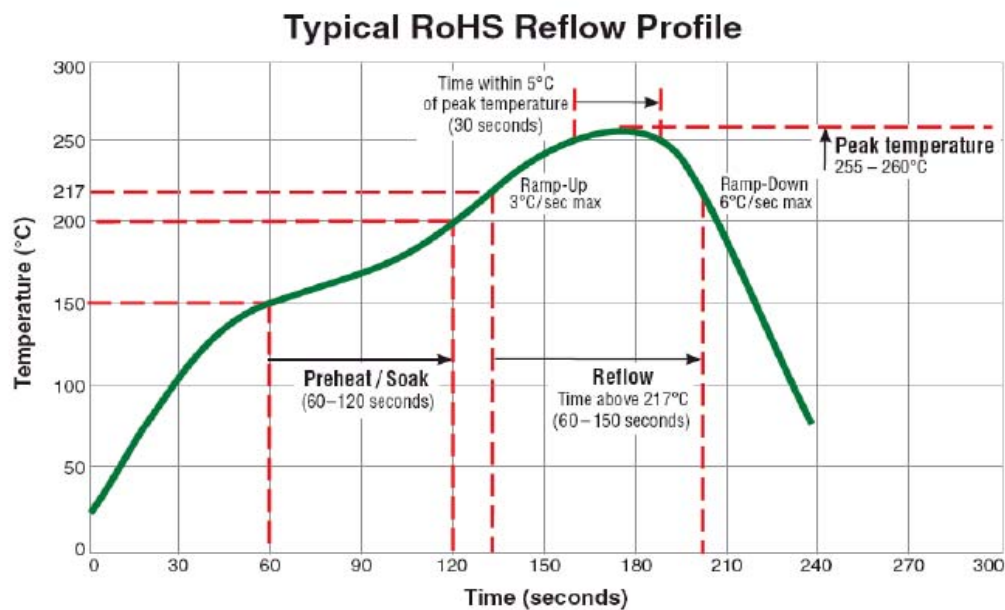
Last two digits of the part no. :

□: Tolerance □: Internal Code

3. CHARACTERISTIC CURVES



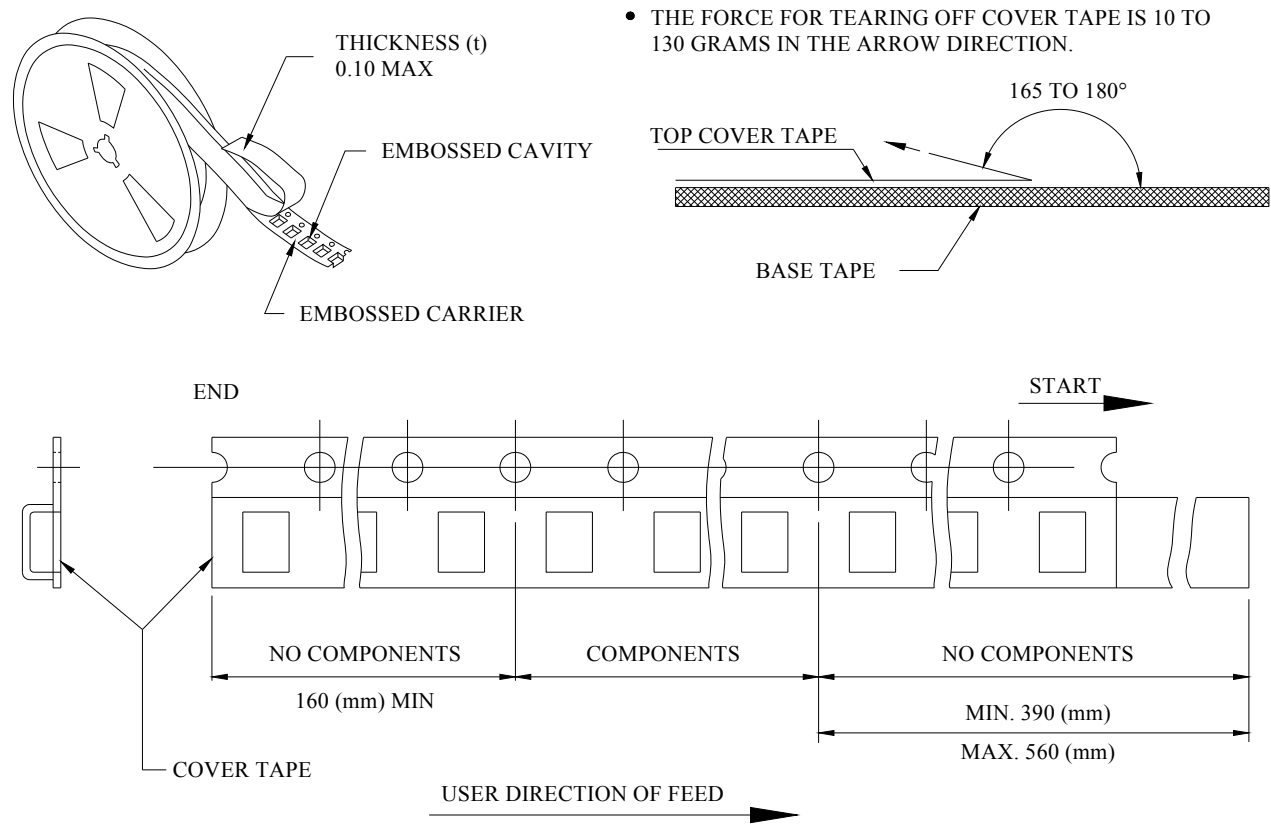
4. Typical RoHS Reflow Profile



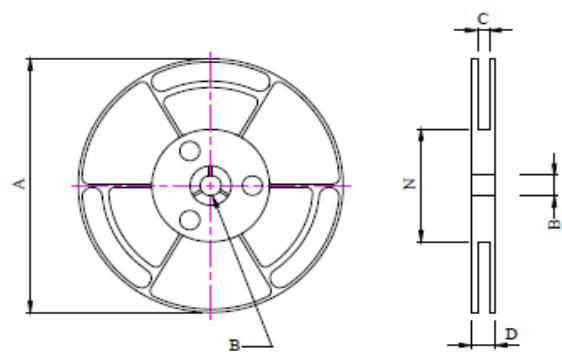
5. RELIABILITY TEST

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

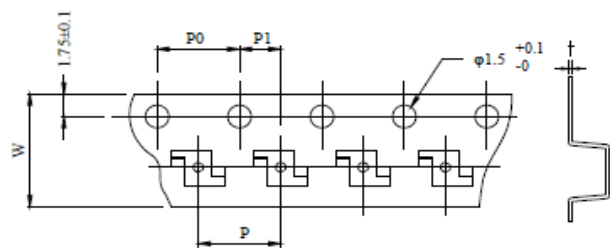
6. PACKAGING



■ CARRIER TAPE REELS (mm)
MATERIAL: PLASTIC



■ DIMENSIONS OF CARRIER TAPE (mm)



UNIT:mm

ITEM	A	B	C	D	N	W	P	P ₀	P ₁	t
DIM	340	13.0	16.5	25.5	100	16.0	12.0	4.0	2.0	0.4
TOL.	MAX	±0.50	±0.50	±0.50	MIN	±0.30	±0.10	±0.10	±0.10	±0.05