Data Sheet

Customer:

Product: SMD Maxi Spring Air Coil – XSA series

Size : 4225

Issued Date: 27-Jul.-2015

Edition: Ver. 1

Record of change

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

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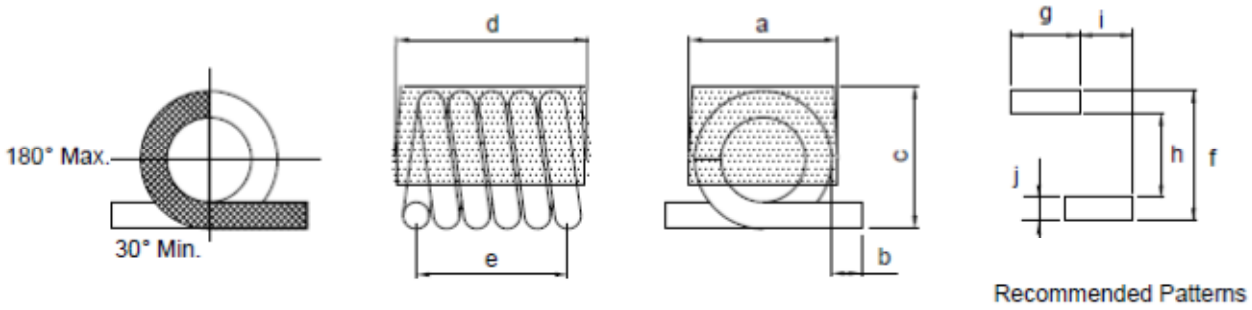
Prepared by	Checked by	Approved by	Accepted by (customer)
27-Jul.-2015	27-Jul.-2015	27-Jul.-2015	
Andy Hsu	***Hwa Wu***	***Hwa Wu***	

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
4225	6.35 (Max.)	1.02±0.39	5.9 (Max.)	10.55 (Max.)	7.98±0.51

Land Pattern: mm

Size	f	g	h	i	j
4225	10.00	4.70	5.95	2.42	2.04

2. ELECTRICAL:

PART NO.	Turns	Inductance (nH)	Q (MIN)	Q (TYP)	Test Freq (MHz)	DCR MAX (mΩ)	SRF (GHz) MIN	Rated current(A) MAX
XSA4225T-09□□	9	90	95	114	50	15	1140	3.5
XSA4225T-10□□	10	111	87	104	50	15	1020	3.5
XSA4225T-11□□	11	130	87	104	50	20	900	3.0
XSA4225T-12□□	12	169	95	114	50	25	875	3.0
XSA4225T-13□□	13	206	95	114	50	30	800	3.0
XSA4225T-14□□	14	222	92	110	50	35	730	3.0
XSA4225T-15□□	15	246	95	114	50	35	685	3.0
XSA4225T-16□□	16	307	95	114	50	35	660	3.0
XSA4225T-17□□	17	380	95	114	50	50	590	2.5
XSA4225T-18□□	18	422	95	114	50	60	540	2.5
XSA4225T-19□□	19	491	95	114	50	65	535	2.0
XSA4225T-20□□	20	538	87	104	50	90	490	2.0

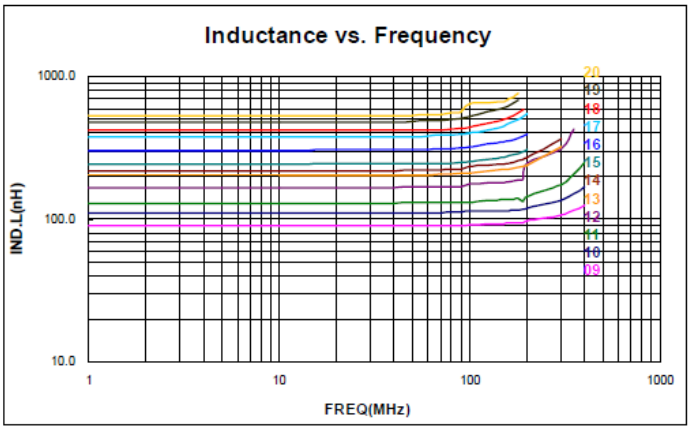
NOTE :

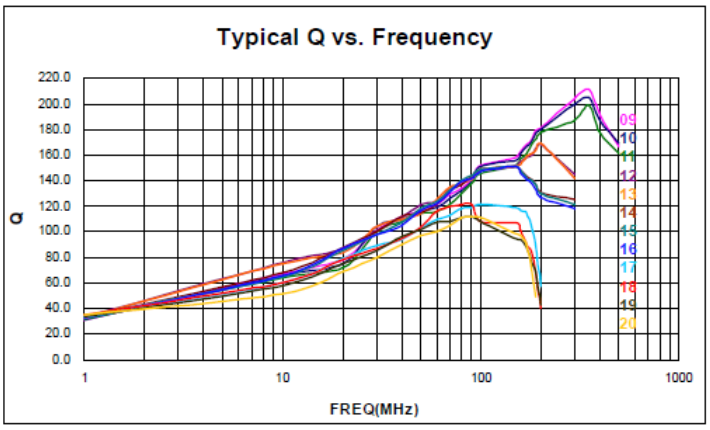
1. Tolerance：G:±2%,J:±5%, K:±10%
2. Inductance & Q measured on the HP4291B
3. SRF measured on HP8753E or equivalent.
4. RDC measured on Chroma 16502 or equivalent.
5. Operating temperature range: -40℃ to +125℃.
6. Storage temperature :-40℃to +85℃
7. For temperature rise : 15℃.
8. MSL：LEVEL 1

Last two digits of the part no. :

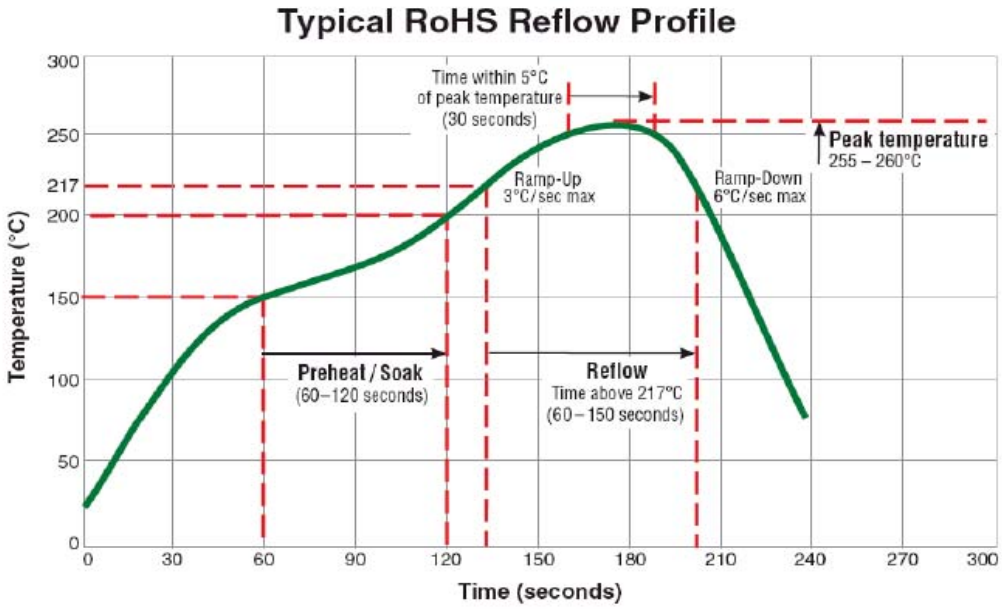
□: Tolerance □: Internal Code

3. CHARACTERISTIC CURVES





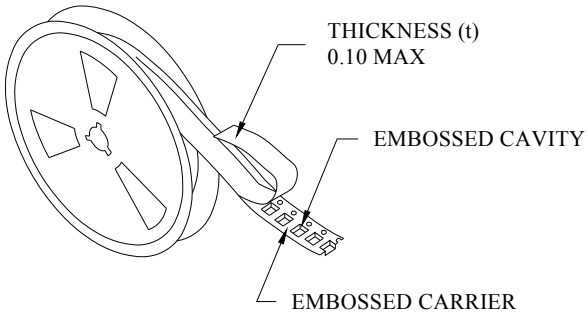
4. Typical RoHS Reflow Profile



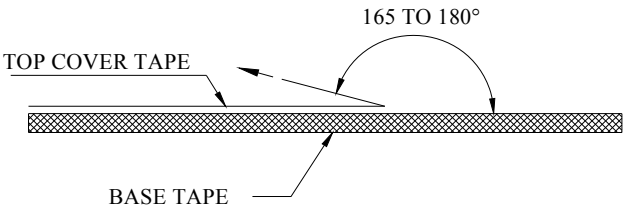
5. RELIABILITY TEST

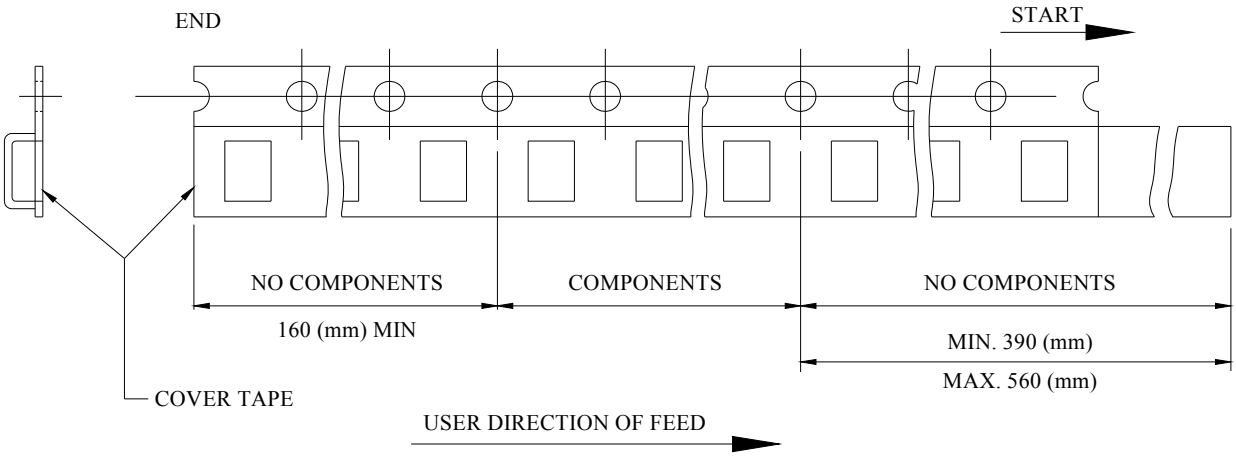
Test Item	Test Condition	Standard Source
Salt Spray Test	Chamber temperature 35℃, the concentration of salt spray 5% (Total 24 hours).	MIL-STD-202G Method 101E Test Condition C
Humidity Test	+40℃± 2℃, humidity of 90% ± 5% (total 96 hours).	MIL-STD-202G Method 103B Test Condition B
High Temperature Storage	1.Temperature: +125℃±2℃ 2.Test time:48±2hrs	IEC 68-2 Test Condition B
Low Temperature Storage	1.Temperature: -40℃±2℃ 2.Test time: 48±2hrs	IEC 68-2 Test Condition A
Thermal Shock	+125℃±5℃ (30 minutes) ~ -40 ± 5℃ (30 minutes), temperature switch time: 5 minutes (total 50 cycles).	MIL-STD-202G Method 107G Test Condition B-2
Life Test	+75℃±2℃ (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℃ solder pot, stay 10Sec Reflow: Keep 250 ±5℃,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 ℃ 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



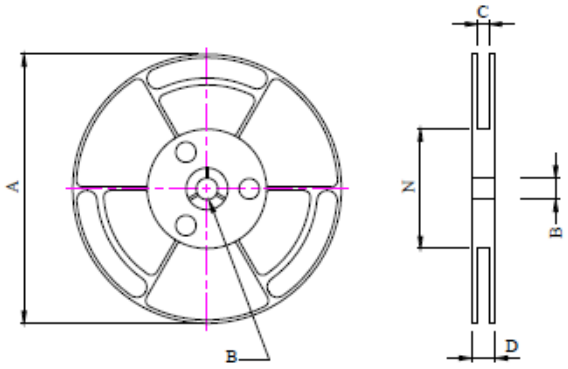
- THE FORCE FOR TEARING OFF COVER TAPE IS 10 TO 130 GRAMS IN THE ARROW DIRECTION.



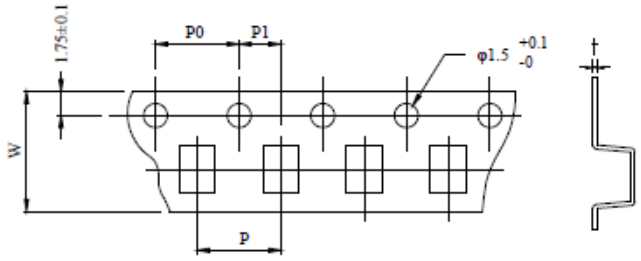


■ CARRIER TAPE REELS (mm)

MATERIAL: PLASTIC



■ DIMENSIONS OF CARRIER TAPE (mm)



UNIT:mm

ITEM	A	B	C	D	N	W	P	Po	P_1	t
DIM	340	13.0	24.5	30.4	100	24.0	12.0	4.0	2.0	0.35
TOL.	MAX	±0.50	±0.50	±0.50	MIN	±0.30	±0.10	±0.10	±0.10	±0.05