

Data Sheet

Customer: _____

Product: Square Air Coil – SQA Series _____

Size : 0806/0807/0908 _____

Issued Date: 26-May-2015 _____

Edition: Ver. 1 _____

Record of change

Date	Ver.	Description	Page
26-May.-2015	1		

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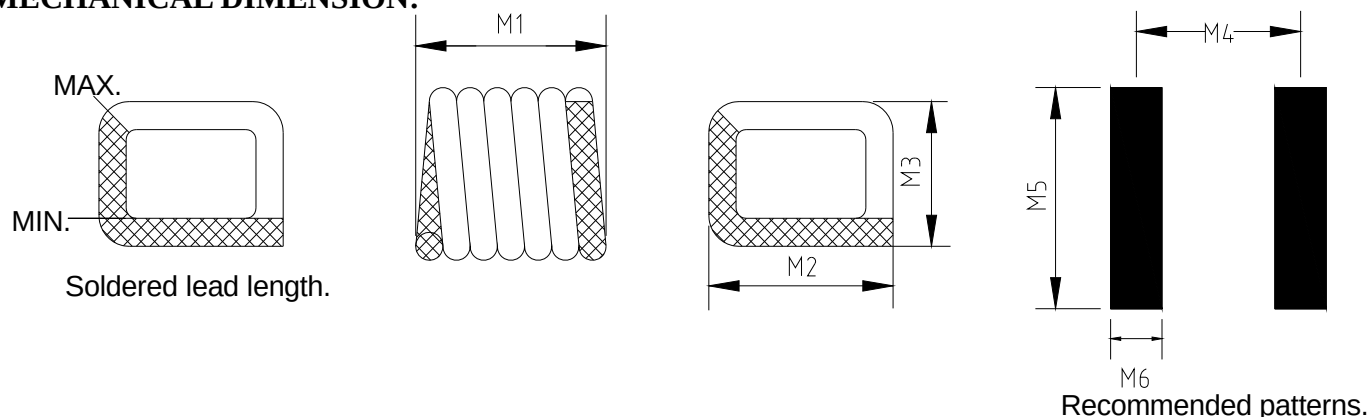
Prepared by	Checked by	Approved by	Accepted by (customer)
26-May.-2015	26-May.-2015	26-May.-2015	
Andy Hsu	Hwa Wu	Hwa Wu	

Feature:

- Excellent Q factors – up to 130
- Current handling as high as 4.4 Amps!
- 20 inductance values from 5.5 to 27 nH
- Flat top and bottom for reliable pick and place and mechanical stability
- All Values are available in 2% tolerance.

※Graphic is only for dimensionally application.

1. MECHANICAL DIMENSION:



UNIT :mm

PART NO.	M1	M2	M3	M4	M5	M6
SQA0806T5N5□□	1.346±0.102	1.829±0.254	1.397±0.102	0.962	2.6	0.51
SQA0806T6N0□□	1.295±0.102	1.829±0.254	1.397±0.102	1.020	2.6	0.51
SQA0806T8N9□□	1.626±0.152	1.829±0.254	1.397±0.102	1.320	2.6	0.51
SQA0806T12N□□	1.930±0.152	1.829±0.254	1.397±0.102	1.630	2.6	0.51
SQA0806T16N□□	2.286±0.152	1.829±0.254	1.397±0.102	1.960	2.6	0.51
SQA0806T19N□□	2.591±0.152	1.829±0.254	1.397±0.102	2.290	2.6	0.51

PART NO.	M1	M2	M3	M4	M5	M6
SQA0807T6N9□□	1.295±0.102	1.829±0.254	1.524±0.254	1.02	2.6	0.51
SQA0807T10N□□	1.626±0.152	1.829±0.254	1.524±0.254	1.32	2.6	0.51
SQA0807T11N□□	1.549±0.152	1.829±0.254	1.524±0.254	1.24	2.6	0.51
SQA0807T14N□□	1.930±0.152	1.829±0.254	1.524±0.254	1.63	2.6	0.51
SQA0807T17N□□	2.286±0.152	1.829±0.254	1.524±0.254	1.96	2.6	0.51
SQA0807T22N□□	2.591±0.152	1.829±0.254	1.524±0.254	2.29	2.6	0.51

PART NO.	M1	M2	M3	M4	M5	M6
SQA0908T8N1□□	1.473±0.152	2.134±0.152	1.829±0.152	1.12	2.8	0.64
SQA0908T12N□□	1.854±0.152	2.134±0.152	1.829±0.152	1.45	2.8	0.64
SQA0908T15N□□	1.549±0.152	2.134±0.152	1.829±0.152	1.24	2.8	0.64
SQA0908T17N□□	2.210±0.152	2.134±0.152	1.829±0.152	1.83	2.8	0.64
SQA0908T22N□□	2.565±0.152	2.134±0.152	1.829±0.152	2.18	2.8	0.64
SQA0908T23N□□	2.235±0.152	2.134±0.152	1.829±0.152	1.90	2.8	0.64
SQA0908T25N□□	2.972±0.152	2.134±0.152	1.829±0.152	2.57	2.8	0.64
SQA0908T27N□□	2.972±0.152	2.134±0.152	1.829±0.152	2.57	2.8	0.64

2. ELECTRICAL:

PART NO.	Turns	Tolerance	Inductance (nH)	Q (MIN)	Test Freq (MHZ)	DCR MAX (mΩ)	SRF (GHZ) TYP	Rated current(A) MAX
SQA0806T5N5□□	3	G,J,K	5.5	60	400	3.4	4.9	2.9
SQA0806T6N0□□	3	G,J,K	6.0	64	400	6.0	5.2	2.9
SQA0806T8N9□□	4	G,J,K	8.9	90	400	7.0	4.3	2.9
SQA0806T12N□□	5	G,J,K	12.3	90	400	8.0	4.8	2.9
SQA0806T16N□□	6	G,J,K	15.7	90	400	9.0	4.4	2.9
SQA0806T19N□□	7	G,J,K	19.4	90	400	10.0	4.0	2.9

PART NO.	Turns	Tolerance	Inductance (nH)	Q (MIN)	Test Freq (MHZ)	DCR MAX (mΩ)	SRF (GHZ) TYP	Rated current(A) MAX
SQA0807T6N9□□	3	G,J,K	6.9	100	400	6.0	4.6	2.7
SQA0807T10N□□	4	G,J,K	10.2	100	400	7.0	4.0	2.7
SQA0807T11N□□	4	G,J,K	11.2	90	400	6.3	3.6	2.7
SQA0807T14N□□	5	G,J,K	13.7	100	400	8.0	4.3	2.7
SQA0807T17N□□	6	G,J,K	17.0	100	400	9.0	4.0	2.7
SQA0807T22N□□	7	G,J,K	22.0	100	400	10.0	3.5	2.7

PART NO.	Turns	Tolerance	Inductance (nH)	Q (MIN)	Test Freq (MHZ)	DCR MAX (mΩ)	SRF (GHZ) TYP	Rated current(A) MAX
SQA0908T8N1□□	3	G,J,K	8.1	130	400	6.0	5.2	4.4
SQA0908T12N□□	4	G,J,K	12.1	130	400	7.0	4.3	4.4
SQA0908T15N□□	4	G,J,K	14.7	90	400	7.2	3.0	4.4
SQA0908T17N□□	5	G,J,K	16.6	130	400	8.0	3.4	4.4
SQA0908T22N□□	6	G,J,K	21.5	130	400	9.0	3.7	4.4
SQA0908T23N□□	6	G,J,K	23.0	130	400	10.0	2.6	4.4
SQA0908T25N□□	7	G,J,K	25.0	130	400	10.0	2.5	4.4
SQA0908T27N□□	7	G,J,K	27.3	130	400	10.0	3.2	4.4

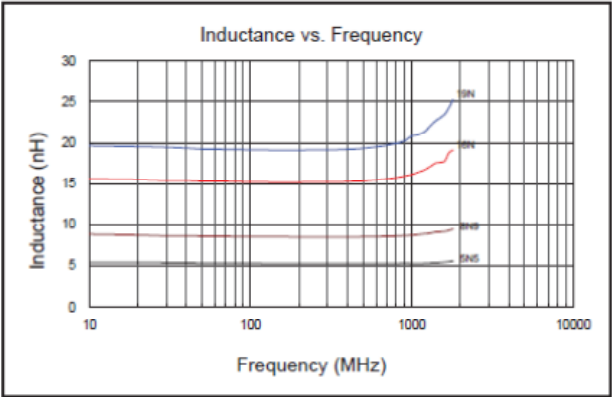
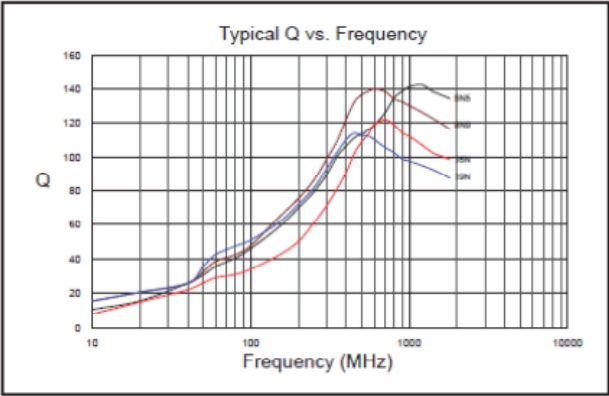
TEST INSTRUMENT : HP4291B / FIXTURE HP16193A

NOTE :

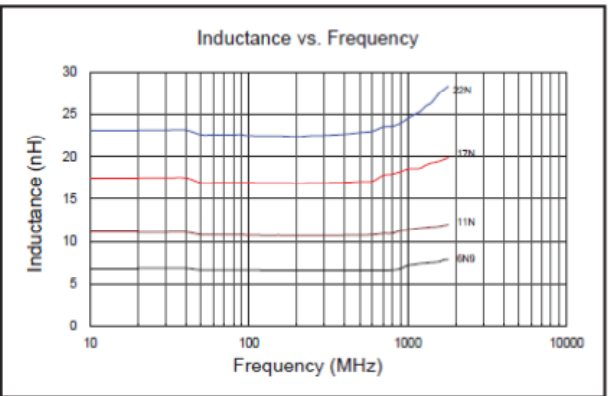
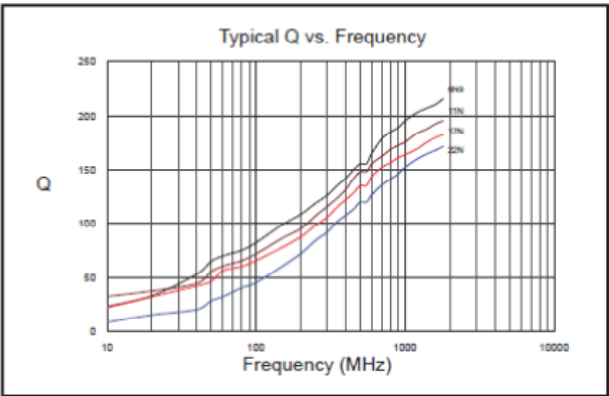
1. Tolerance : G:±2%,J:±5%, K:±10%
2. Inductance & Q measured on the HP4291B. With HP16193A test fixture.
3. SRF measured using the HP8753E
4. Operating temperature range: -40°C to +125°C.
5. Storage temperature Component:-40°C to +145°C. , Packaging : -40°C. TO +80°C.
6. Electrical specifications at 25°C.
7. MSL : LEVEL 1

3. CHARACTERISTIC CURVES

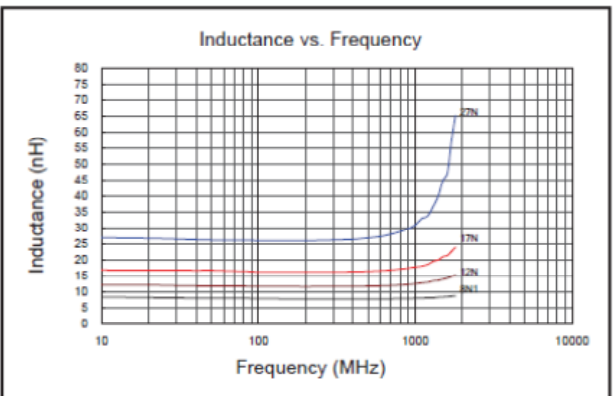
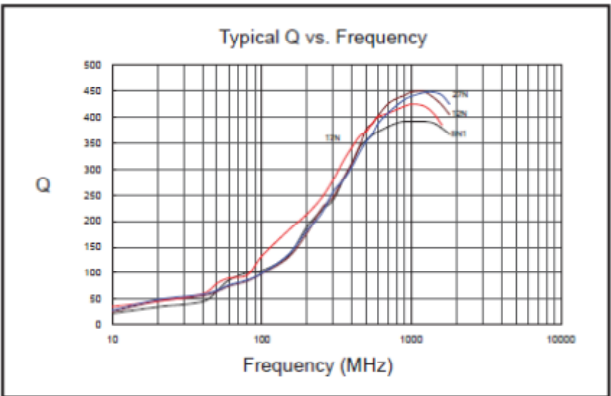
SQA0806



SQA0807



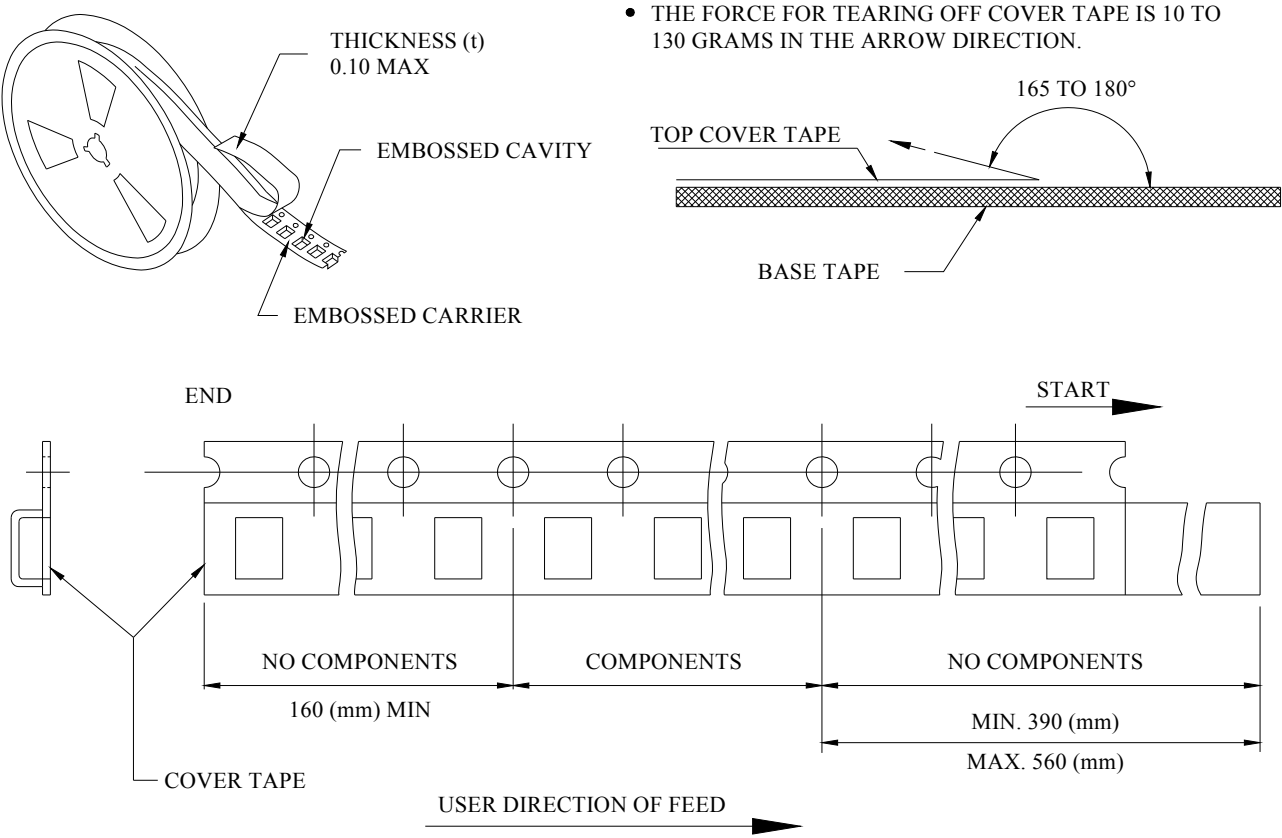
SQA0908



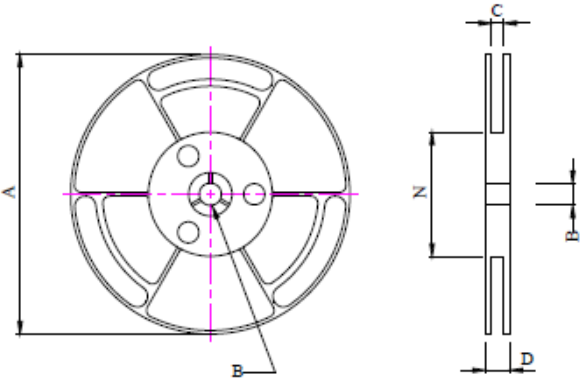
4. RELIABILITY TEST

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℃/sec; Above 183℃, 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

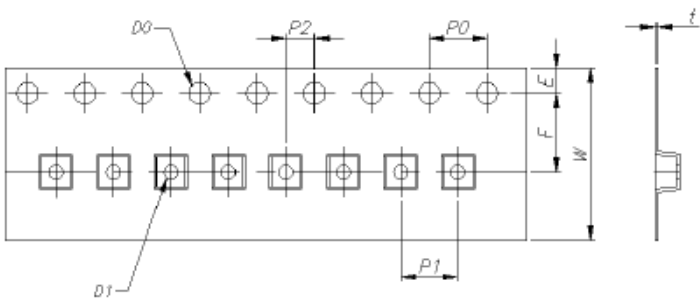
5. PACKAGING



■ CARRIER TAPE REELS (mm)
MATERIAL: PLASTIC



■ DIMENSIONS OF CARRIER TAPE (mm)



UNIT:mm

ITEM	A	B	C	D	N	W	E	F	P1	P2	P0	D0	D1	t
DIM.	178	13.0	12.4	16.8	50	12.0	1.75	5.50	4.00	2.0	4.0	1.5	1.0	0.25
TOL.	±2.0	+0.5 -0.2	+2.0 -0	MAX.	MIN.	±0.2	±0.1	±0.1	±0.10	±0.1	±0.1	+0.1/-0	±0.1	±0.05

6. RoHS REFLOW SOLDERING PROFILE

