

Data Sheet

Customer: _____

Product: Square Air Coil – SQB Series _____

Size : 1111/1515/2222/2929 _____

Issued Date: 2-May-2018 _____

Edition: Ver. 2 _____

Record of change

Date	Ver.	Description	Page
26-Jun.-2015	1		
02-May.-2018	2	Add size 1111	

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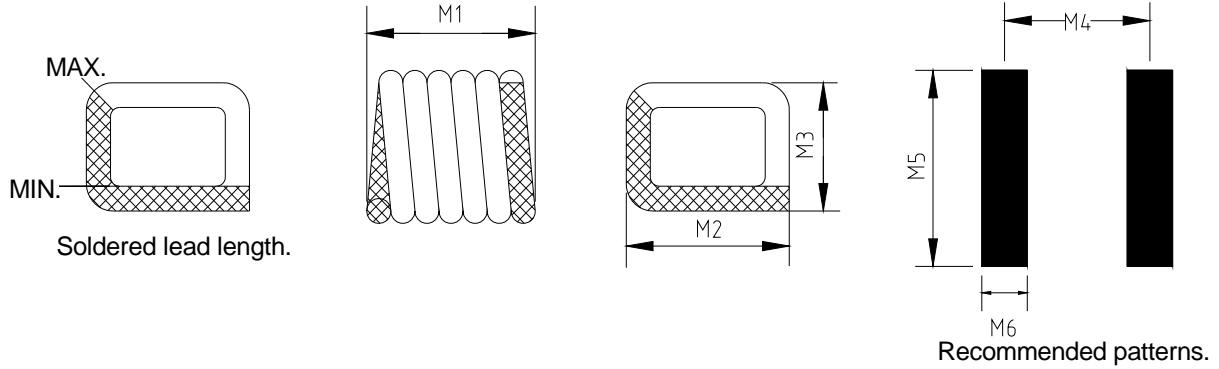
Prepared by	Checked by	Approved by	Accepted by (customer)
26-Jun.-2015	26-Jun.-2015	26-Jun.-2015	
<i>Andy Hsu</i>	<i>Hwa Wu</i>	<i>Hwa Wu</i>	

Feature:

- Excellent Q factors , high current handling. All Values are available in 2% tolerance.
- Flat top and bottom for reliable pick and place and mechanical stability

※Graphic is only for dimensionally application.

1. MECHANICAL DIMENSION:



UNIT :mm

PART NO.	M1	M2	M3	M4	M5	M6
SQB1111T27N□□	2.67±0.254	2.67±0.127	2.79±0.127	2.29	3.05	1.02
SQB1111T30N□□	2.67±0.254	2.67±0.127	2.79±0.127	2.29	3.05	1.02
SQB1111T33N□□	2.92±0.254	2.67±0.127	2.79±0.127	2.54	3.05	1.02
SQB1111T36N□□	2.92±0.254	2.67±0.127	2.79±0.127	2.54	3.05	1.02
SQB1111T39N□□	2.92±0.254	2.67±0.127	2.79±0.127	2.54	3.05	1.02
SQB1111T43N□□	3.30±0.254	2.67±0.127	2.79±0.127	2.79	3.05	1.02
SQB1111T47N□□	3.30±0.254	2.67±0.127	2.79±0.127	2.79	3.05	1.02
SQB1515T47N□□	4.06±0.254	3.56±0.178	3.73±0.178	3.56	4.45	1.78
SQB1515T68N□□	4.06±0.254	3.56±0.178	3.73±0.178	3.56	4.45	1.78
SQB1515T82N□□	4.06±0.254	3.56±0.178	3.73±0.178	3.56	4.45	1.78
SQB2222T90N□□	5.21±0.381	5.46±0.254	5.69±0.254	4.70	6.35	2.16
SQB2222TR11□□	5.21±0.381	5.46±0.254	5.69±0.254	4.70	6.35	2.16
SQB2222TR13□□	5.21±0.381	5.46±0.254	5.69±0.254	4.70	6.35	2.16
SQB2222TR16□□	5.21±0.381	5.46±0.254	5.69±0.254	4.70	6.35	2.16
SQB2222TR18□□	5.21±0.381	5.46±0.254	5.69±0.254	4.70	6.35	2.16
SQB2222TR22□□	5.21±0.381	5.46±0.254	5.69±0.254	4.70	6.35	2.16
SQB2222TR27□□	5.21±0.381	5.46±0.254	5.69±0.254	4.70	6.35	2.16
SQB2222TR30□□	5.21±0.381	5.46±0.254	5.69±0.254	4.70	6.35	2.16
SQB2929TR33□□	10.29±0.381	7.49±0.254	7.24±0.254	9.53	8.26	2.29
SQB2929TR36□□	11.30±0.381	7.49±0.254	7.24±0.254	10.541	8.26	2.29
SQB2929TR39□□	12.32±0.381	7.49±0.254	7.24±0.254	11.56	8.26	2.29
SQB2929TR43□□	13.21±0.381	7.49±0.254	7.24±0.254	12.45	8.26	2.29
SQB2929TR50□□	14.00±0.381	7.49±0.254	7.24±0.254	13.21	8.26	2.29

2. ELECTRICAL:

PART NO.	Tolerance	Inductance (nH)	Q (MIN)	Test Freq (MHz)	DCR MAX (mΩ)	SRF (GHz) TYP	Rated current(A) MAX
SQB1111T27N□□	G,J	27	200	400	8.1	2.6	5.5
SQB1111T30N□□	G,J	30	200	400	8.3	2.4	5.5
SQB1111T33N□□	G,J	33	200	400	9.5	2.3	4.8
SQB1111T36N□□	G,J	36	200	400	9.8	2.3	4.8
SQB1111T39N□□	G,J	39	200	400	10.0	2.2	4.8
SQB1111T43N□□	G,J	43	200	400	10.8	2.2	4.4
SQB1111T47N□□	G,J	47	200	400	11.3	2.2	4.4
SQB1515T47N□□	G,J	47	230	400	6.35	1.87	4.90
SQB1515T68N□□	G,J	68	230	400	8.60	2.13	5.50
SQB1515T82N□□	G,J	82	230	400	9.40	1.79	5.60
SQB2222T90N□□	G,J	90	140	50	5.50	1.15	5.00
SQB2222TR11□□	G,J	110	140	50	6.50	1.00	5.70
SQB2222TR13□□	G,J	130	140	50	7.50	1.00	5.40
SQB2222TR16□□	G,J	160	140	50	8.25	1.00	5.70
SQB2222TR18□□	G,J	180	140	50	9.50	1.10	5.00
SQB2222TR22□□	G,J	220	140	50	11.0	1.00	5.00
SQB2222TR27□□	G,J	270	140	50	12.5	0.80	4.30
SQB2222TR30□□	G,J	330	150	50	13.8	0.72	3.70
SQB2929TR33□□	G,J	330	180	50	12.5	0.66	4.70
SQB2929TR36□□	G,J	360	180	50	13.5	0.62	4.50
SQB2929TR39□□	G,J	390	180	50	14.5	0.59	4.40
SQB2929TR43□□	G,J	430	180	50	15.5	0.55	4.20
SQB2929TR50□□	G,J	500	180	50	16.5	0.50	4.30

TEST INSTRUMENT : HP4291B / FIXTURE HP16193A

NOTE :

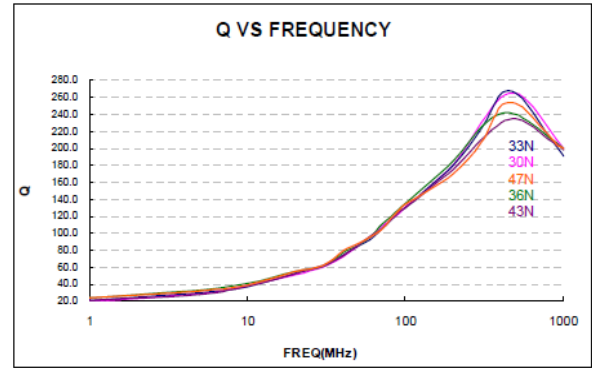
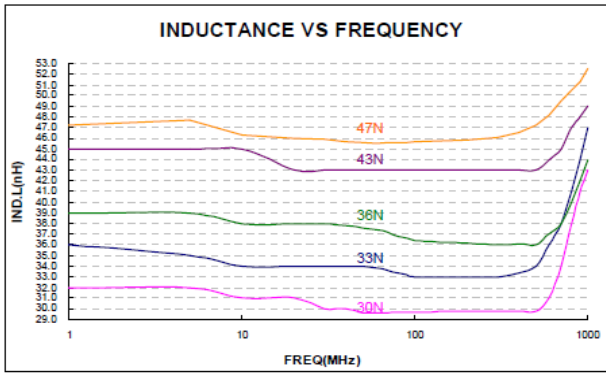
1. Tolerance : G:±2%,J:±5%
2. Inductance & Q measured on the HP4291B. With HP16193A test fixture.
3. SRF measured using the HP8753 network analyzer.
4. Operating temperature range: -40°C to +125°C with Irms current, +125°C to +145°C with derated current.
5. Storage temperature Component:-40°C to +145°C. , Packaging : -40°C. TO +80°C.
6. Electrical specifications at 25°C.
7. Current that causes a 20°C temperature rise from 25°C ambient.

Part numbering:

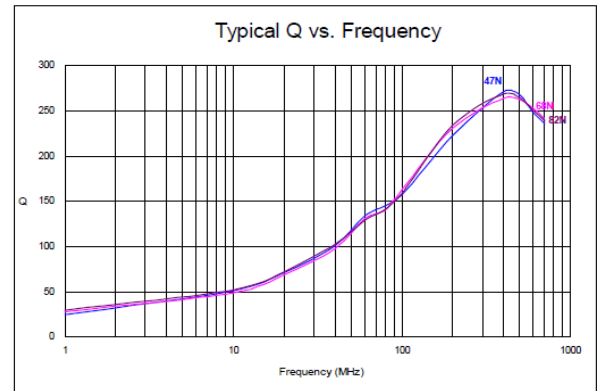
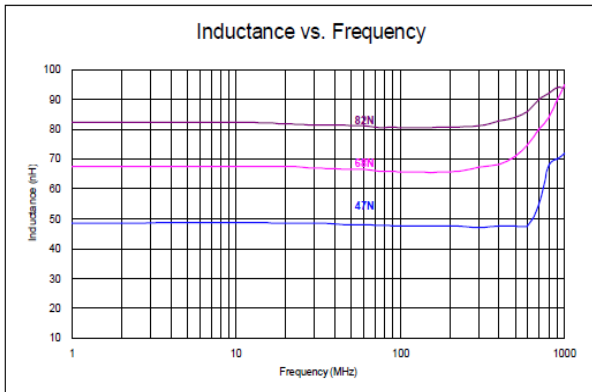
SQB	1111	T	82N	□	□
Series	Size	Taping	Inductance	Tol.	Internal code
	1111		82N = 82nH	G = ±2%	
	1515		R22 = 0.22uH	J = ±5%	
	2222				
	2929				

3. CHARACTERISTIC CURVES

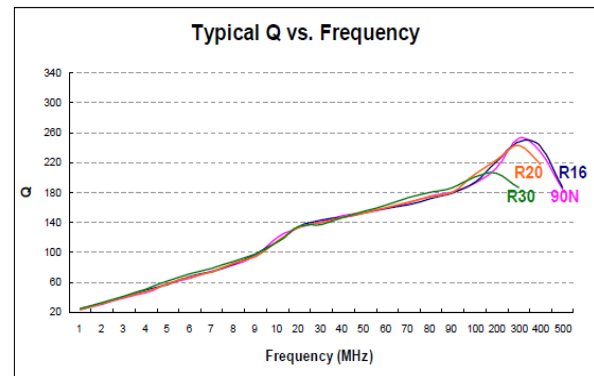
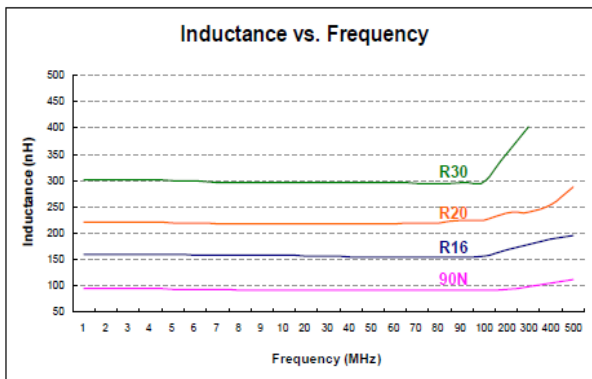
SQB1111



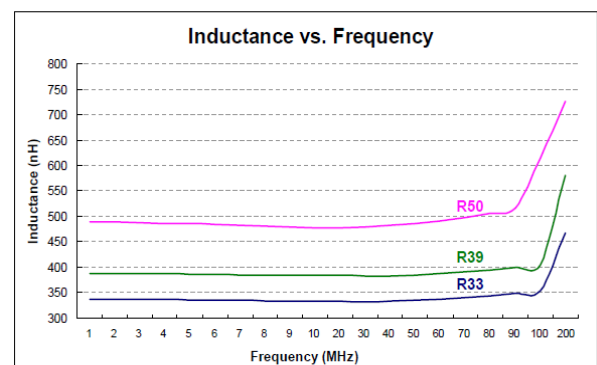
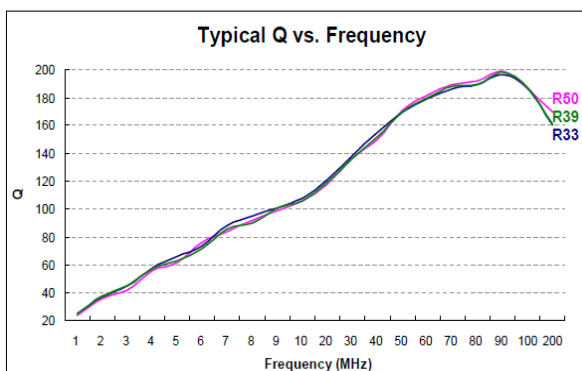
SQB1515



SQB2222



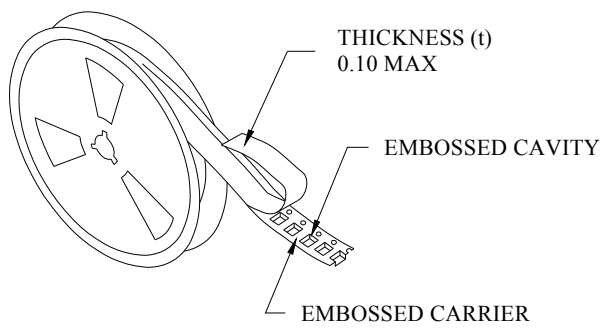
SQB2929



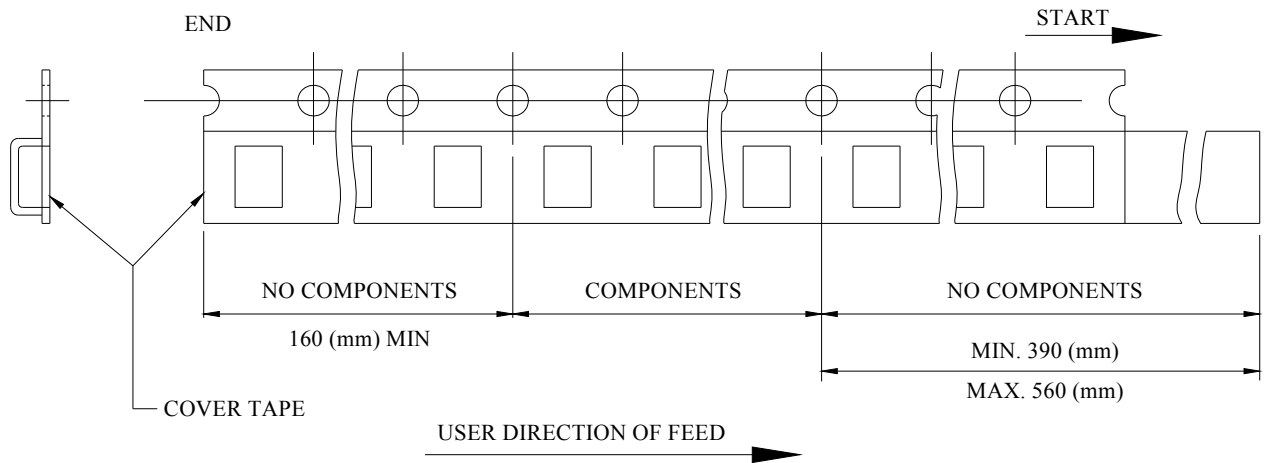
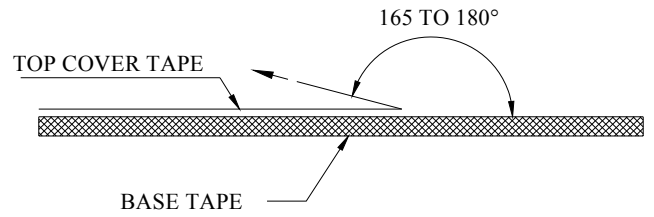
4. RELIABILITY TEST

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

5. PACKAGING

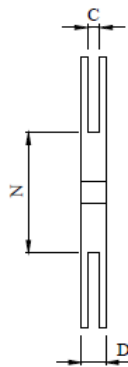
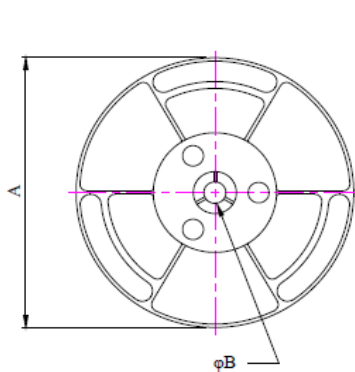


- THE FORCE FOR TEARING OFF COVER TAPE IS 10 TO 130 GRAMS IN THE ARROW DIRECTION.

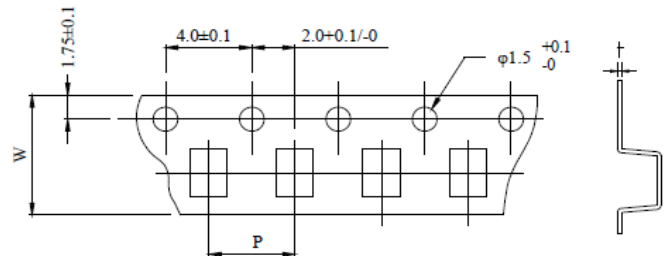


■ CARRIER TAPE REELS (mm)

MATERIAL: PLASTIC



■ DIMENSIONS OF CARRIER TAPE (mm)

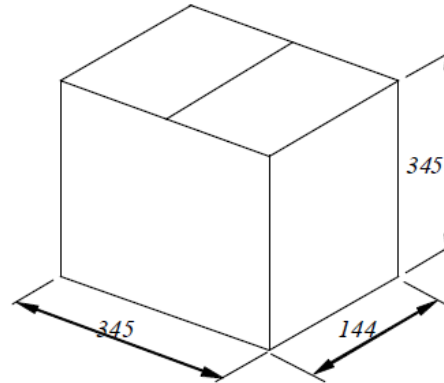
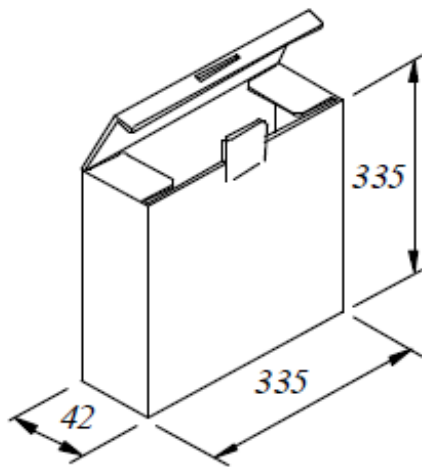


UNIT:mm

ITEM	A	B	C	D	N	W	P	t
DIM.	330	13.0	24.5	30.4	100	24.0	12.0	0.40
TOL.	MAX	±0.2	±0.2	MAX.	±0.5.	±0.3	±0.1	±0.05

unit : mm

- CONSTRUCTION:
THE CASE CONTAINS 1-24mm WIDE CARRIER TAPES.
QTY : 2,500 / REEL
5,000 / BOX



6. Typical RoHS Reflow Soldering Profile

