



PRODUCT IDENTIFICATION

JWI	0402	HQ	- 3N9	J
Type	Size	Inductance		Tol.

High Q-Value

INTRODUCTIONS

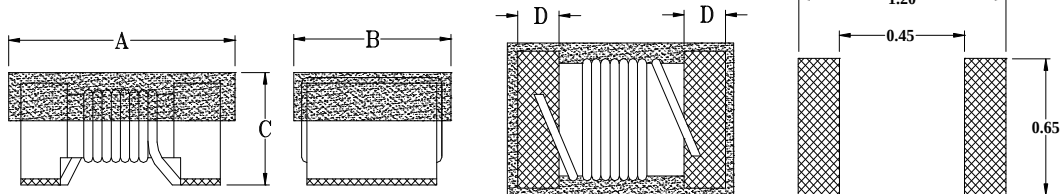
The JWJ 0402HQ series are wire wound chip inductors widely used in the communication applications such as cellular phones, cable modem, ADSL, repeaters, Bluetooth, and other electronic devices. The wire wound inductors advance in higher self resonate frequency, better Q factor, lower DCR than other 0402. Precious tolerance of 2% is available.

FEATURES

- * Operating temperature -40°C to +125°C
- * Excellent solderability and resistance to soldering heat .
- * Suitable for reflow soldering.
- * High reliability and easy surface mount assembly.
- * Wide range of inductance values are available for flexible needs.

DIMENSIONS (mm)

Part No.	Size (mm)			
	A	B	C	D
JWI 0402HQ	1.00 ± 0.10	0.55 ± 0.10	0.50 ± 0.10	0.20 ± 0.10



Recommended Pattern

CHIP INDUCTOR SPECIFICATIONS

1. Scope

This specification applies to fixed inductors of the following types used in electronic equipment :

Ceramic Type : For lower inductance with high Q factor at high frequency and stable circuit requirement.

2. Construction

Configuration

& Dimension : Please refer to the attached figures and tables.

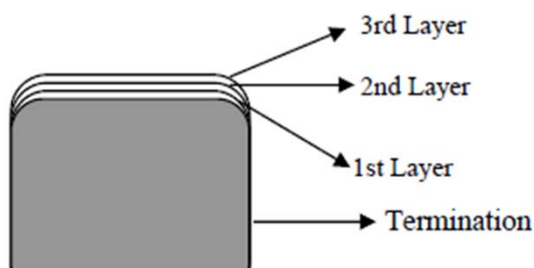
Terminals : JWI series terminals shall consist of MoMn alloy followed by Nickel, then Au plating for easier soldering

3. Operating Temperature Range

Operating Temperature Range is the scope of ambient temperature at which the inductor can be operated continuously at rated current.

Temp. Range : Ceramic Material : - 40°C to + 125°C

4. Ingredient of terminals electrode



	<u>Ceramic Type</u>
a) 1st layer :	Mo/Mn
b) 2nd layer :	Nickel
c) 3rd layer :	Gold

5. Characteristics

Standard Atmospheric Conditions

Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows :

Ambient Temperature : 25°C (20°C) $\pm$ 2°C

Relative Humidity : 60% to 70%

Air Pressure : 86 Kpa to 106 Kpa

SERIES LIST

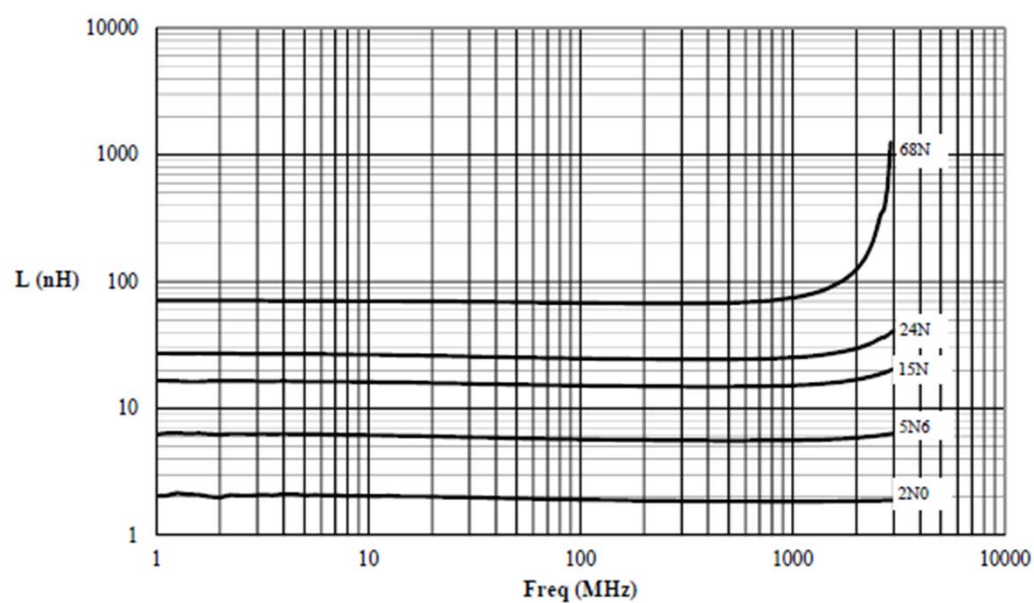
No.	Part No.	L (nH)	Test Freq. (MHz)	Tol.	Q MIN	Test Freq. (MHz)	SRF (MHz) MIN	RDC (Ω) MAX	IDC (mA) MAX
1	JWI 0402HQ-2N0□	2.0	250	B,S	22	250	8500	0.038	2100
2	JWI 0402HQ-2N2□	2.2	250	B,S	22	250	8500	0.038	2100
3	JWI 0402HQ-2N7□	2.7	250	B,S	22	250	8500	0.056	1500
4	JWI 0402HQ-3N3□	3.3	250	K,J,B	23	250	8500	0.045	1700
5	JWI 0402HQ-3N6□	3.6	250	K,J,B	23	250	8500	0.045	1700
6	JWI 0402HQ-3N9□	3.9	250	K,J,B	23	250	8500	0.045	1700
7	JWI 0402HQ-4N3□	4.3	250	K,J,B	22	250	7150	0.055	1500
8	JWI 0402HQ-4N7□	4.7	250	K,J,B	20	250	6850	0.075	1400
9	JWI 0402HQ-5N1□	5.1	250	K,J,B	23	250	6800	0.085	1300
10	JWI 0402HQ-5N6□	5.6	250	K,J,B	23	250	6500	0.055	1500
11	JWI 0402HQ-6N2□	6.2	250	K,J,B	25	250	5800	0.065	1400
12	JWI 0402HQ-6N8□	6.8	250	K,J,B	25	250	5800	0.065	1400
13	JWI 0402HQ-7N5□	7.5	250	K,J,B	25	250	5400	0.080	1400
14	JWI 0402HQ-8N2□	8.2	250	K,J,B	25	250	5400	0.085	1300
15	JWI 0402HQ-8N7□	8.7	250	K,J,B	25	250	5000	0.085	1300
16	JWI 0402HQ-9N0□	9.0	250	K,J,B	25	250	5000	0.085	1300
17	JWI 0402HQ-9N5□	9.5	250	K,J,B	25	250	4700	0.095	1200
18	JWI 0402HQ-10N□	10	250	K,J,G	25	250	4700	0.085	1300
19	JWI 0402HQ-11N□	11	250	K,J,G	25	250	4700	0.090	1300
20	JWI 0402HQ-12N□	12	250	K,J,G	26	250	4400	0.090	1100
21	JWI 0402HQ-13N□	13	250	K,J,G	25	250	4200	0.140	900
22	JWI 0402HQ-15N□	15	250	K,J,G	26	250	3900	0.130	1000
23	JWI 0402HQ-16N□	16	250	K,J,G	26	250	3700	0.130	850
24	JWI 0402HQ-18N□	18	250	K,J,G	26	250	3550	0.140	850
25	JWI 0402HQ-19N□	19	250	K,J,G	26	250	3500	0.145	850
26	JWI 0402HQ-20N□	20	250	K,J,G	26	250	3500	0.155	800
27	JWI 0402HQ-21N□	21	250	K,J,G	26	250	3300	0.160	800
28	JWI 0402HQ-22N□	22	250	K,J,G	26	250	3300	0.160	800
29	JWI 0402HQ-23N□	23	250	K,J,G	26	250	3300	0.190	700
30	JWI 0402HQ-24N□	24	250	K,J,G	26	250	3150	0.180	650
31	JWI 0402HQ-25N□	25	250	K,J,G	25	250	3150	0.180	650
32	JWI 0402HQ-26N□	26	250	K,J,G	25	250	3150	0.170	700
33	JWI 0402HQ-27N□	27	250	K,J,G	26	250	3200	0.220	600
34	JWI 0402HQ-30N□	30	250	K,J,G	25	250	2900	0.275	500
35	JWI 0402HQ-33N□	33	250	K,J,G	25	250	2800	0.320	490
36	JWI 0402HQ-36N□	36	250	K,J,G	26	250	2800	0.360	480
37	JWI 0402HQ-37N□	37	250	K,J,G	25	250	2700	0.430	470
38	JWI 0402HQ-39N□	39	250	K,J,G	25	250	2600	0.430	450
39	JWI 0402HQ-40N□	40	250	K,J,G	26	250	2600	0.430	450
40	JWI 0402HQ-43N□	43	250	K,J,G	26	250	2500	0.500	450
41	JWI 0402HQ-47N□	47	200	K,J,G	22	200	2400	0.550	420
42	JWI 0402HQ-51N□	51	200	K,J	22	200	2300	0.750	360
43	JWI 0402HQ-56N□	56	200	K,J	22	200	2070	0.850	330
44	JWI 0402HQ-68N□	68	200	K,J	22	200	1840	0.950	320

Note:

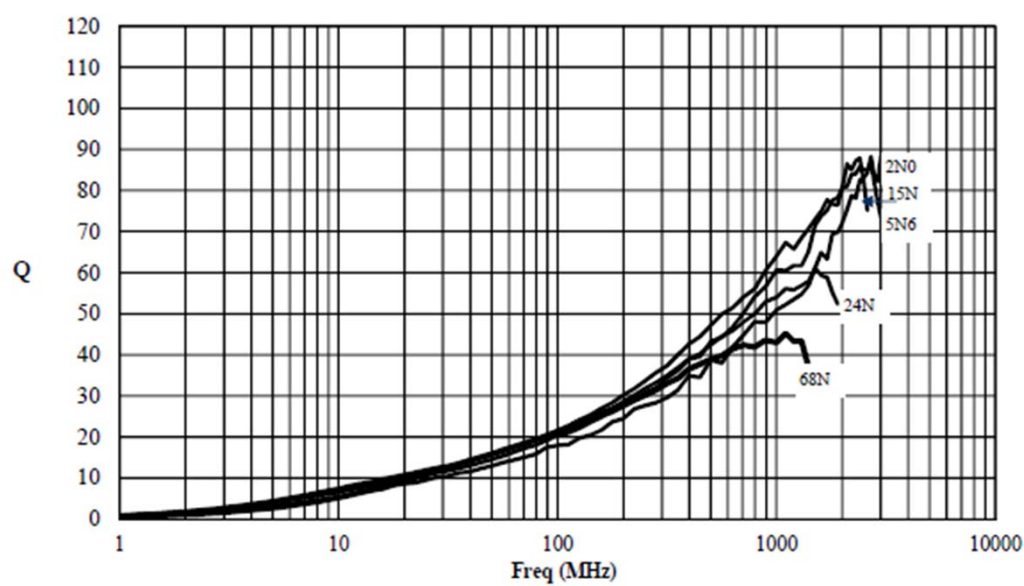
□ Tolerance : B ± 0.2nH 、 S ± 0.3nH 、 G ± 2% 、 J ± 5% 、 K ± 10%

TYPICAL PERFORMANCE CURVES

L vs Freq Plot



Q vs Freq Plot

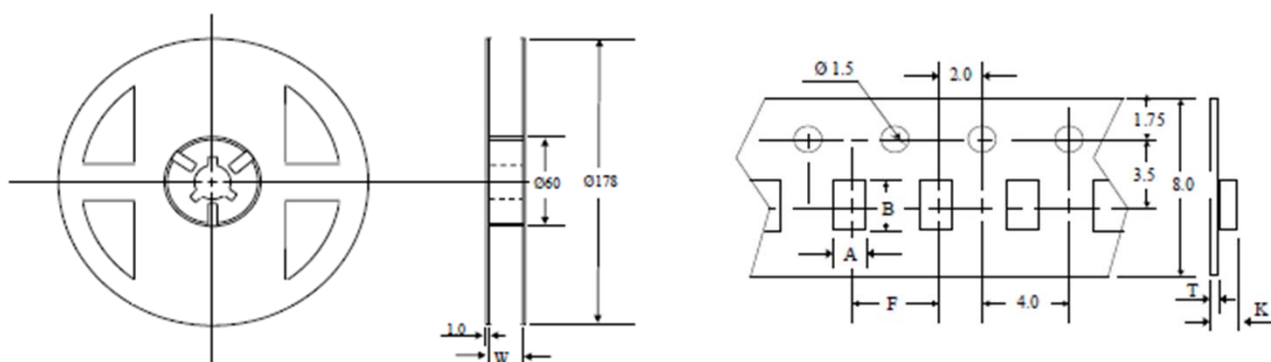


Packaging Information

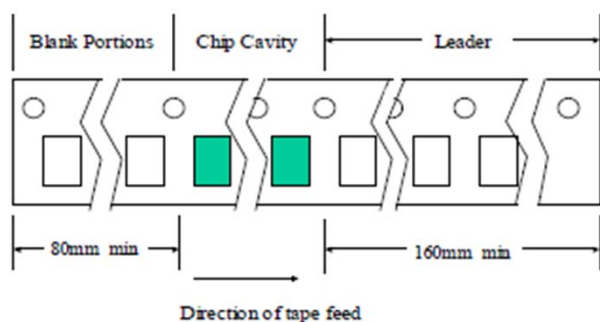
Packing Quantity

Size	Pcs / Reel
JWI 0402HQ	10000

Reel Dimension & Tape Dimension

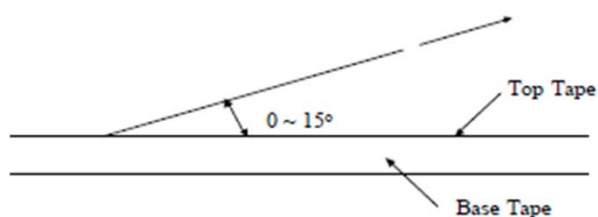


Type	Chip Cavity		Insert Pitch	Type Thickness		
	A	B	F	K	T	W
JWI 0402HQ	0.70	1.20	2.00	-	0.70	8.00



Top Tape Strength

The top tape requires a peel-off force of 0.2 to 0.7N in the direction of the arrow as illustrated below.



CHIP INDUCTOR SPECIFICATION

Operating Environment

Do not use this product under the following environmental conditions, on deterioration of performance, such as insulation resistance may result from the use.

1. In corrosive gases (acidic gases, alkaline gases, chlorine, sulfur gases, organic gases and etc.)
2. In the atmosphere where liquid such as organic solvent, may splash on the products.

Storage Condition

1. Storage period

Use the product within 12 months after delivered.

Solderability should be checked if this period is exceeded.

2. Storage environment conditions

* Product should be store in the warehouse on the following conditions.

Temperature : -10 ~ +40°C

Humidity : 20 to 70% relative humidity. No rapid change on temperature and humidity.

* Products should not be stored in corrosive gases, such as sulfurous, acid gases, alkaline gases, to prevent the following deterioration.

Poor solderability due to the oxidized electrode.

* Products should be stored on the pallet for the prevention of the influence from humidity, dust and so on.

* Products should be stored in the warehouse without heat shock, vibration, direct sunlight and so on.

* Do not unpack the minimum package until immediately before use. After unpacking, re-seal promptly or store in desiccator with a desiccant.

Delivery

Care should be taken when transporting or handling product to avoid excessive vibration or mechanical shock.