

# Inductors

## For High Frequency SMD

## NLU Series NLU1608 Type

### FEATURES

- Q has been increased by forming the special spiral-form conductor mainly composed of copper on the thin-film multilayer structure and reducing direct current resistance.
- Narrow inductance tolerance of  $\pm 2\%$  or  $\pm 0.2\text{nH}$  has been achieved by increasing the dimensional precision of the conductor and between them.
- Accurate dimensional precision has been achieved as well as excellent soldering heat resistance.
- Concurrent use with ultra-small chip components is possible due to the thickness of 0.6mm.
- Compatible with either reflow or flow soldering

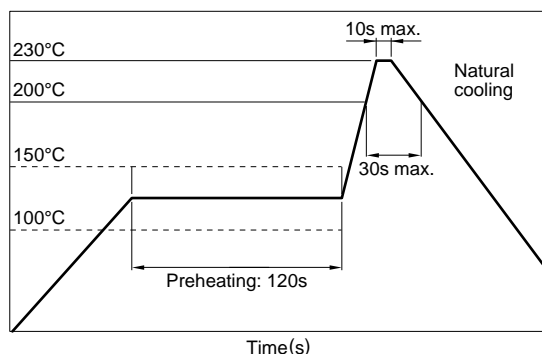
### APPLICATIONS

High-frequency circuits for portable telephones, pagers, or other mobile communication appliances.

### SPECIFICATIONS

Operating temperature range	-40 to +100°C
Storage temperature range	-55 to +125°C [Unit of products]

### RECOMMENDED REFLOW SOLDERING CONDITIONS



### PRODUCT IDENTIFICATION

NLU	160805	T	-	2N2	C
(1)	(2)	(3)	(4)	(5)	

(1) Series name

(2) Dimensions L×W×T

160805	1.6×0.8×0.58mm
201205	2.0×1.2×0.58mm

(3) Packaging style

T	Taping (reel)
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(4) Inductance value

2N2	2.2nH
12N	12nH
R10	100nH

(5) Inductance tolerance

C	$\pm 0.2\text{nH}$
G	$\pm 2\%$

### PACKAGING STYLE AND QUANTITIES

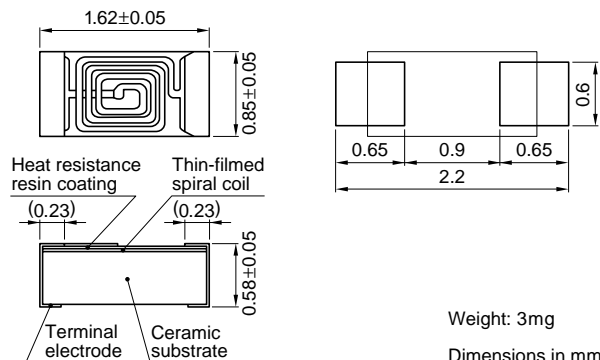
Packaging style	Quantity
Taping	4000 pieces/reel

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SMD

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## SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



## ELECTRICAL CHARACTERISTICS

Inductance (nH)	Inductance tolerance	Q		Test frequency L, Q (MHz)	Self-resonant frequency (GHz)		DC resistance ( $\Omega$ )max.	Rated current (mA)max.	Part No.
		min.	typ.		min.	typ.			
1.2	$\pm 0.2$ nH	13	20	300	5	12.5	0.08	400	NLU160805T-1N2C
1.5	$\pm 0.2$ nH	13	18	300	5	11.5	0.1	400	NLU160805T-1N5C
1.8	$\pm 0.2$ nH	13	19	300	5	10.5	0.11	400	NLU160805T-1N8C
2.2	$\pm 0.2$ nH	13	20	300	5	9.5	0.12	400	NLU160805T-2N2C
2.7	$\pm 0.2$ nH	13	19	300	5	8.4	0.14	400	NLU160805T-2N7C
3.3	$\pm 0.2$ nH	13	19	300	5	7.6	0.16	320	NLU160805T-3N3C
3.9	$\pm 0.2$ nH	13	19	300	5	6.8	0.18	320	NLU160805T-3N9C
4.7	$\pm 0.2$ nH	13	19	300	5	6.5	0.28	240	NLU160805T-4N7C
5.6	$\pm 0.2$ nH	13	21	300	4.6	5.8	0.31	240	NLU160805T-5N6C
6.8	$\pm 0.2$ nH	13	19	300	4.1	5.1	0.37	240	NLU160805T-6N8C
8.2	$\pm 0.2$ nH	13	19	300	3.9	4.9	0.55	170	NLU160805T-8N2C
10	$\pm 2\%$	13	20	300	3.5	4.4	0.64	170	NLU160805T-10NG
12	$\pm 2\%$	13	18	300	3.1	3.9	0.7	170	NLU160805T-12NG
15	$\pm 2\%$	13	20	300	2.8	3.5	0.95	130	NLU160805T-15NG
18	$\pm 2\%$	13	20	300	2.5	3.1	1.2	130	NLU160805T-18NG
22	$\pm 2\%$	13	19	300	2.3	2.9	1.9	100	NLU160805T-22NG
27	$\pm 2\%$	13	20	300	2	2.6	2.1	100	NLU160805T-27NG
33	$\pm 2\%$	13	19	300	1.9	2.4	3.2	80	NLU160805T-33NG
39	$\pm 2\%$	13	18	300	1.7	2.2	4.4	70	NLU160805T-39NG
47	$\pm 2\%$	12	17	300	1.5	2	6.2	60	NLU160805T-47NG

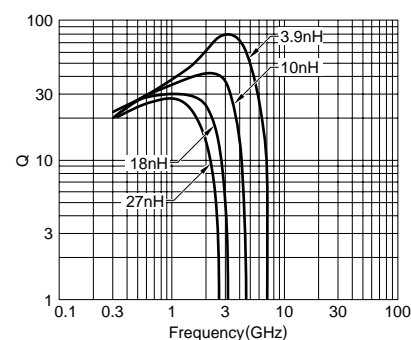
• L, Q : HP4291A IMPEDANCE ANALYZER+16193A TEST FIXTURE

SRF : HP8753C NETWORK ANALYZER Typical value : HP8719C NETWORK ANALYZER

Rdc : MATSUSHITA DIGITAL MILLIOHM METER VP-2941A or equivalent

## TYPICAL ELECTRICAL CHARACTERISTICS

### Q vs. FREQUENCY CHARACTERISTICS



### INDUCTANCE vs. FREQUENCY CHARACTERISTICS

