

## 1. WTI Series (Ceramic Type)

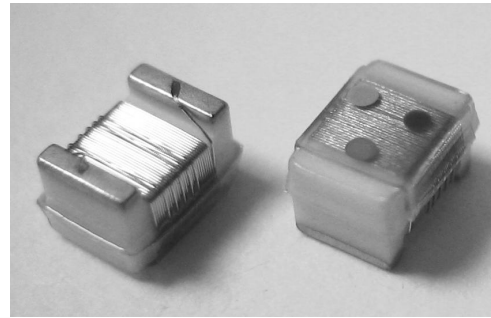
Range of Size: (0402(1005)~1008(2520))

Test Equipment: **HP4286, 4287A & 4291B** - For "Inductance" & "Q"

**HP4287A & 8753E** - For "SRF"

**HP4287A, GOM-801G & 502BC** - For "DCR"

Operating Temperature: -40 ~+125



### Applications

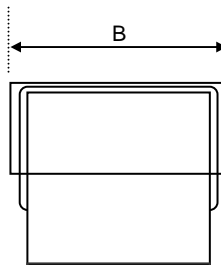
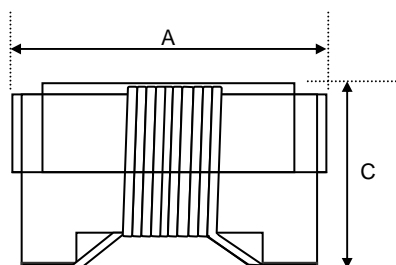
- > Cordless (DECT/CT1CT2) & Cellular (CDMA/GSM/PHS) Phone.
- > Remote control, wireless security system.
- > WLL, Wireless LAN / Mouse / Keyboard / Earphone.
- > GPS receiver.
- > VCO, RF Module & other wireless products.
- > CATV Filter, Tuner.
- > Cable Modem / XDSL Tuner.
- > Set Top Box.

### Features

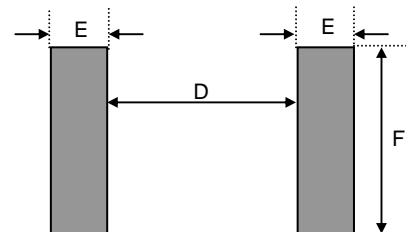
- > Wirewound ceramic construction provide high SRF.
- > Ultra compact inductors provide exceptional Q values.
- > Low Profile, high Q are available.
- > Outstanding endurance from Pull-up force, mechanical shock and pressure.
- > Smaller size of 0402(1005) & tighter tolerance down to +/- 2%.

### General Dimensions and Configuration

#### SHAPE:



#### PCB PATTERN



#### DIMENSIONS:

SERIES	A (m/m) (Max.)	B (m/m) (Max.)	C (m/m) (Max.)	D (m/m)	E (m/m)	F (m/m)
WTI-0402HC	1.27	0.76	0.61	0.46	0.50	0.66
WTI-0603C	1.80	1.12	1.02	0.64	0.64	1.02
WTI-0805C	2.29	1.73	1.52	0.76	1.02	1.78
WTI-1008C	2.92	2.79	2.03	1.27	1.27	2.54

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### Inductance, SRF, Q and Rated Current ranges

SERIES	Inductance (nH)	SRF (Min.) (GHz)	Q (Min.)	I (Rated) (mA)
WTI-0402C	1.00~68	12.700~1.620	15~25	1360~100
WTI-0603C	1.60~390	12.500~0.900	16~40	700~100
WTI-0805C	2.70~4700	7.900~0.188	15~65	600~90
WTI-1008C	10.00~3900	4.100~0.100	20~65	1000~260

### Color Coding

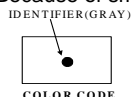
Color	Figures	Multiplier
Black	0	1
Brown	1	10
Red	2	100
Orange	3	1000
Yellow	4	10000
Green	5	-
Blue	6	-
Violet	7	-
Gray	8	-
White	9	-

#### WTI-0402C Series

No Color Coding

#### WTI-0603C, WTI-0805C Series

Because of small size, these parts are marked with a single color dot.

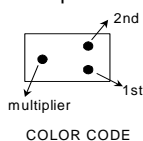


Ex : **WTI-0805C-33NJ**

**MARKING : GRAY**

#### WTI-1008C Series

These parts are marked with 3 color dots.



Ex : **WTI-1008C-10NJ**

**MARKING : Dots 1 and 2 indicate the inductance in nano Henries.**

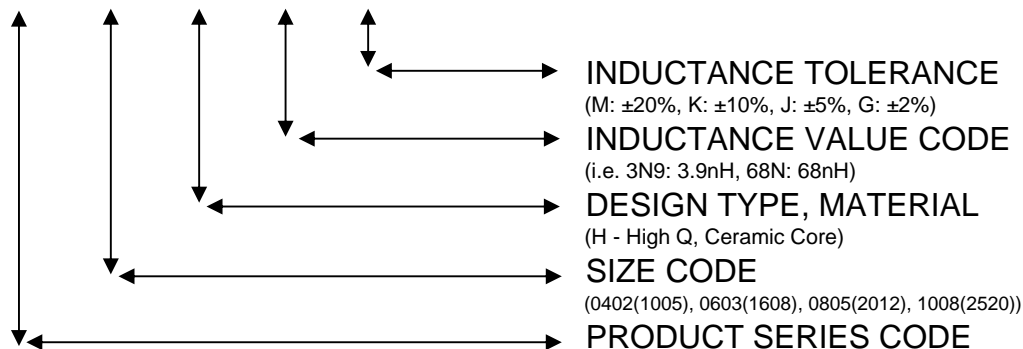
**(DOT 1 : BROWN , DOT 2 : BLACK)**

**MARKING : Dot 3 indicates number of zeroes to be added.**

**(DOT 3 : BLACK)**

### Part Numbering Systems

**WTI-0402HC -39N G**



**1. WTI Series (Size: 0402 (1005))****Electrical Characteristics**

WTI-0402HC Wire Wound Chip Inductors /High Q Type

Inductance (nH)	Tolerance	L Freq. (MHz)	Quality Factor		SRF (GHz) min.	DCR ( $\Omega$ ) max.	IDC (mA) max.
			900MHz	1.7GHz			
1.0	$\pm 0.2\text{nH}, \pm 0.5\text{nH}, \pm 5\%, \pm 10\%$	250	46	75	16.0	0.030	2300
2.0	$\pm 0.2\text{nH}, \pm 0.5\text{nH}, \pm 5\%, \pm 10\%$	250	58	85	15.2	0.038	2100
2.2	$\pm 0.2\text{nH}, \pm 0.5\text{nH}, \pm 5\%, \pm 10\%$	250	60	86	15.1	0.038	2100
2.4	$\pm 0.2\text{nH}, \pm 0.5\text{nH}, \pm 5\%, \pm 10\%$	250	60	83	14.0	0.042	2000
2.7	$\pm 0.2\text{nH}, \pm 0.5\text{nH}, \pm 5\%, \pm 10\%$	250	62	85	13.0	0.075	1500
3.3	$\pm 0.2\text{nH}, \pm 0.5\text{nH}, \pm 5\%, \pm 10\%$	250	66	95	12.8	0.045	1700
3.6	$\pm 0.2\text{nH}, \pm 0.5\text{nH}, \pm 5\%, \pm 10\%$	250	65	94	11.7	0.045	1700
3.9	$\pm 0.2\text{nH}, \pm 0.5\text{nH}, \pm 5\%, \pm 10\%$	250	64	98	9.50	0.045	1700
4.3	$\pm 0.5\text{nH}, \pm 5\%, \pm 10\%$	250	63	90	7.15	0.050	1600
4.7	$\pm 0.5\text{nH}, \pm 5\%, \pm 10\%$	250	58	83	6.85	0.070	1500
5.1	$\pm 2\%, \pm 5\%, \pm 10\%$	250	54	76	6.80	0.115	1200
5.6	$\pm 2\%, \pm 5\%, \pm 10\%$	250	73	105	6.50	0.050	1600
6.2	$\pm 2\%, \pm 5\%, \pm 10\%$	250	73	100	5.80	0.055	1600
6.8	$\pm 2\%, \pm 5\%, \pm 10\%$	250	68	94	5.80	0.065	1500
7.5	$\pm 2\%, \pm 5\%, \pm 10\%$	250	60	82	5.40	0.090	1400
8.2	$\pm 2\%, \pm 5\%, \pm 10\%$	250	68	95	5.40	0.065	1500
8.7	$\pm 2\%, \pm 5\%, \pm 10\%$	250	68	95	5.00	0.065	1500
9.0	$\pm 2\%, \pm 5\%, \pm 10\%$	250	67	92	5.00	0.080	1400
9.5	$\pm 2\%, \pm 5\%, \pm 10\%$	250	64	90	4.70	0.090	1400
10	$\pm 2\%, \pm 5\%, \pm 10\%$	250	62	90	4.70	0.100	1300
11	$\pm 2\%, \pm 5\%, \pm 10\%$	250	68	98	4.70	0.065	1400
12	$\pm 2\%, \pm 5\%, \pm 10\%$	250	66	100	4.40	0.100	1200
13	$\pm 2\%, \pm 5\%, \pm 10\%$	250	62	82	4.20	0.150	870
15	$\pm 2\%, \pm 5\%, \pm 10\%$	250	62	85	3.90	0.110	1100
16	$\pm 2\%, \pm 5\%, \pm 10\%$	250	57	77	3.70	0.140	850
18	$\pm 2\%, \pm 5\%, \pm 10\%$	250	58	74	3.55	0.120	900
19	$\pm 2\%, \pm 5\%, \pm 10\%$	250	61	88	3.50	0.145	850
20	$\pm 2\%, \pm 5\%, \pm 10\%$	250	58	76	3.50	0.185	780
21	$\pm 2\%, \pm 5\%, \pm 10\%$	250	48	62	1.70	0.460	450
22	$\pm 2\%, \pm 5\%, \pm 10\%$	250	60	74	3.30	0.160	800
23	$\pm 2\%, \pm 5\%, \pm 10\%$	250	60	77	3.30	0.160	800
24	$\pm 2\%, \pm 5\%, \pm 10\%$	250	55	71	3.15	0.200	700
25	$\pm 2\%, \pm 5\%, \pm 10\%$	250	57	73	3.15	0.250	600
26	$\pm 2\%, \pm 5\%, \pm 10\%$	250	56	74	3.15	0.285	450
27	$\pm 2\%, \pm 5\%, \pm 10\%$	250	62	86	3.20	0.320	450
30	$\pm 2\%, \pm 5\%, \pm 10\%$	250	61	87	2.90	0.330	450
33	$\pm 2\%, \pm 5\%, \pm 10\%$	250	61	80	2.80	0.330	490
36	$\pm 2\%, \pm 5\%, \pm 10\%$	250	59	76	2.80	0.380	480
37	$\pm 2\%, \pm 5\%, \pm 10\%$	250	57	72	2.70	0.460	470
39	$\pm 2\%, \pm 5\%, \pm 10\%$	250	56	84	2.60	0.430	450
40	$\pm 2\%, \pm 5\%, \pm 10\%$	250	56	75	2.60	0.430	450
43	$\pm 2\%, \pm 5\%, \pm 10\%$	250	52	68	2.50	0.520	450
47	$\pm 2\%, \pm 5\%, \pm 10\%$	250	48	62	2.40	0.580	420
51	$\pm 2\%, \pm 5\%, \pm 10\%$	250	52	59	2.30	0.700	360