

# THIN FILM CHIP INDUCTOR

ATFC-0402



RoHS  
Compliant



1.0 x 0.5 x 0.32mm

## FEATURES:

- A photo-lithographic single layer ceramic chip
- High SRF; Excellent Q
- Superior Temperature Stability
- Tight Tolerance of  $\pm 1\%$  or  $\pm 0.1\text{nH}$
- Self Resonant Frequency Control within 10%
- Stable Inductance in High Frequency Circuit
- Highly Stable Design for Critical Needs

## APPLICATIONS:

- Cellular Telephones
- Pagers and GPS Products
- Wireless LAN
- Communication Appliances
- Bluetooth Module
- VCO, TCXO Circuit and RF Transceiver Modules

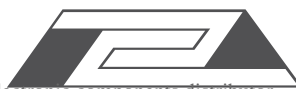
## STANDARD SPECIFICATIONS:

### PARAMETERS

ABRACON P/N:	ATFC-0402-xxx Series
Operating temperature:	-25°C to + 85°C
Storage temperature:	25 $\pm$ 3°C; Humidity <80%RH
Test Equipment:	HP4286A +Aglient 16196C

ABRACON p/n	Inductance (nH)	X: Tolerance Code		Quality Factor (Q) min	Resistance DC/Max ( $\Omega$ )	Current DC/Max (mA)	Self Resonant Frequency /min (GHz)
		Standard	Other Options				
ATFC-0402-0N2-X	0.2	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.1	800	14
ATFC-0402-0N4-X	0.4	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.1	800	14
ATFC-0402-0N8-X	0.8	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.15	700	14
ATFC-0402-1N0-X	1.0	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.15	700	12
ATFC-0402-1N1-X	1.1	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.15	700	12
ATFC-0402-1N2-X	1.2	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.15	700	12
ATFC-0402-1N3-X	1.3	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.25	700	10
ATFC-0402-1N4-X	1.4	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.25	700	10
ATFC-0402-1N5-X	1.5	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.25	700	10
ATFC-0402-1N6-X	1.6	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.25	560	10
ATFC-0402-1N7-X	1.7	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.25	560	10
ATFC-0402-1N8-X	1.8	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.25	560	10
ATFC-0402-1N9-X	1.9	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.35	560	8
ATFC-0402-2N0-X	2.0	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.35	560	8
ATFC-0402-2N1-X	2.1	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.35	440	8
ATFC-0402-2N2-X	2.2	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.35	440	8
ATFC-0402-2N3-X	2.3	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.35	440	8
ATFC-0402-2N4-X	2.4	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.35	440	8
ATFC-0402-2N5-X	2.5	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.35	440	8
ATFC-0402-2N6-X	2.6	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.35	440	8
ATFC-0402-2N7-X	2.7	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.35	440	8
ATFC-0402-2N8-X	2.8	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.45	380	8
ATFC-0402-2N9-X	2.9	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.45	380	6
ATFC-0402-3N0-X	3.0	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.45	380	6
ATFC-0402-3N1-X	3.1	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.45	380	6
ATFC-0402-3N2-X	3.2	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.45	380	6
ATFC-0402-3N3-X	3.3	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.45	380	6
ATFC-0402-3N4-X	3.4	B ( $\pm 0.1\text{nH}$ )	C,S	13 / 500MHz	0.55	380	6

ABRACON IS  
ISO 9001 / QS 9000  
CERTIFIED



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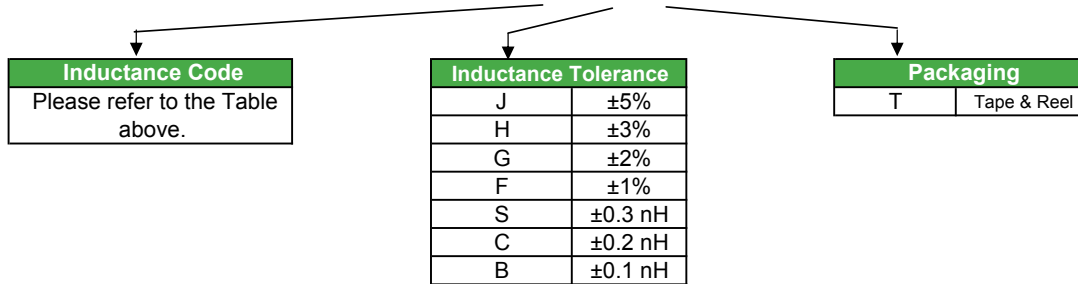
1.0 x 0.5 x 0.32mm

ABRACON p/n	Inductance (nH)	X: Tolerance Code		Quality Factor (Q) min	Resistance DC/Max (Ω)	Current DC/Max (mA)	Self Resonant Frequency /min (GHz)
		Standard	Other Options				
ATFC-0402-3N5-X	3.5	B (±0.1nH)	C,S	13 / 500MHz	0.55	380	6
ATFC-0402-3N6-X	3.6	B (±0.1nH)	C,S	13 / 500MHz	0.55	380	6
ATFC-0402-3N7-X	3.7	B (±0.1nH)	C,S	13 / 500MHz	0.55	340	6
ATFC-0402-3N8-X	3.8	B (±0.1nH)	C,S	13 / 500MHz	0.55	340	6
ATFC-0402-3N9-X	3.9	B (±0.1nH)	C,S	13 / 500MHz	0.55	340	6
ATFC-0402-4N7-X	4.7	B (±0.1nH)	C,S	13 / 500MHz	0.65	320	6
ATFC-0402-5N6-X	5.6	B (±0.1nH)	C,S	13 / 500MHz	0.85	280	6
ATFC-0402-5N9-X	5.9	B (±0.1nH)	C,S	13 / 500MHz	0.85	280	6
ATFC-0402-6N8-X	6.8	B (±0.1nH)	C,S	13 / 500MHz	1.05	260	6
ATFC-0402-7N2-X	7.2	B (±0.1nH)	C,S	13 / 500MHz	1.05	260	6
ATFC-0402-8N0-X	8.0	B (±0.1nH)	C,S	13 / 500MHz	1.25	220	5.5
ATFC-0402-8N2-X	8.2	B (±0.1nH)	C,S	13 / 500MHz	1.25	220	5.5
ATFC-0402-9N1-X	9.1	B (±0.1nH)	C,S	13 / 500MHz	1.25	220	5.5
ATFC-0402-10N-X	10.0	F (±1%)	G,H,J	13 / 500MHz	1.35	200	4.5
ATFC-0402-12N-X	12.0	F (±1%)	G,H,J	13 / 500MHz	1.55	180	3.7
ATFC-0402-13N8-X	13.8	F (±1%)	G,H,J	13 / 500MHz	1.75	180	3.7
ATFC-0402-15N-X	15.0	F (±1%)	G,H,J	13 / 500MHz	1.75	130	3.3
ATFC-0402-17N-X	17.0	F (±1%)	G,H,J	13 / 500MHz	1.95	100	3.1
ATFC-0402-18N-X	18.0	F (±1%)	G,H,J	13 / 500MHz	2.15	100	3.1
ATFC-0402-20N8-X	20.8	F (±1%)	G,H,J	13 / 500MHz	2.55	90	2.8
ATFC-0402-22N-X	22.0	F (±1%)	G,H,J	13 / 500MHz	2.65	90	2.8
ATFC-0402-27N-X	27.0	F (±1%)	G,H,J	13 / 500MHz	3.25	75	2.5
ATFC-0402-33N-X	33	J (±5%)	-	13 / 500MHz	4.5	75	2.5

## OPTIONS AND PART IDENTIFICATION:

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ATFC - 0402 - □□□ - □ - □

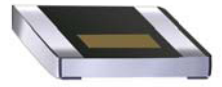


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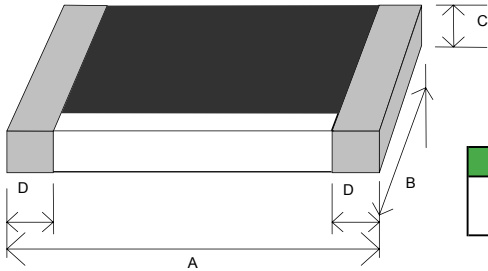


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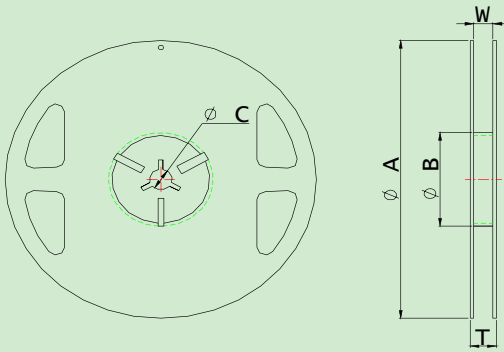
## OUTLINE DRAWING:



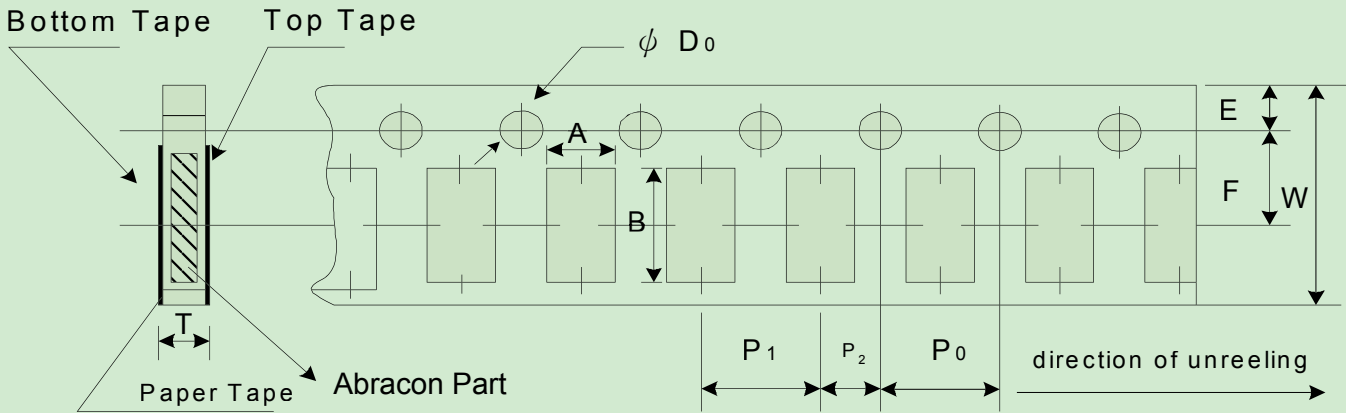
Series	A	B	C	D
ATFC-0402	0.039±0.002 (1.0±0.05)	0.020±0.002 (0.5±0.05)	0.013±0.002 (0.32±0.05)	0.008±0.004 (0.2±0.10)

Dimensions: Inches (mm)

## TAPE & REEL: T= tape and reel (10000pcs/reel)



ABRACON P/N	ΦA	ΦB	ΦC	W	T	Paper Tape (EA)
ATFC-0402	178±1	60.2±0.5	13.0±0.50	9.00±0.5	12.0±0.15	10,000



Codes	A	B	W	E	F
ATFC-0402	0.70±0.05	1.16±0.05	8.00±0.10	1.75±0.05	3.5±0.05

Codes	P <sub>0</sub>	P <sub>1</sub>	P <sub>2</sub>	ΦD <sub>0</sub>	T
ATFC-0402	4.00±0.10	4.00±0.05	2.00±0.05	1.55±0.05	0.40±0.03

Dimensions: mm

