

THIN FILM CHIP INDUCTORS

ATFC-0402

 RoHS/RoHS II Compliant



1.00 x 0.50 x 0.32mm

FEATURES:

- Photolithographic single layer ceramic chip
- High SRF, excellent Q, superior temperature stability
- Tight tolerance $\pm 0.1\text{nH}$ available
- Self resonant frequency controlled within 10%
- Stable inductance in high frequency circuit
- Highly stable design for critical needs

APPLICATIONS:

- Cell phones and GPS
- VCO, TCXO Circuit and RF Transceiver Module
- Wireless LAN, Bluetooth Module, Communication Appliances

STANDARD SPECIFICATIONS:

PARAMETERS

ABRACON P/N:	ATFC-0402
Operating temperature:	-45°C to +85°C
Storage temperature:	+25 \pm 3°C, 80% RH max

Part Number ATFC-0402- Inductance Code	L(nH)	Tolerance	Q, Min @ 500MHz	SRF Min (GHz)	R _{DC} Max (Ω)	I _{DC} Max (mA)
ATFC-0402-0N2	0.2	B, C, S	13	14	0.10	800
ATFC-0402-0N3	0.3	B, C, S	13	14	0.10	800
ATFC-0402-0N4	0.4	B, C, S	13	14	0.10	800
ATFC-0402-0N5	0.5	B, C, S	13	14	0.15	700
ATFC-0402-0N6	0.6	B, C, S	13	14	0.15	700
ATFC-0402-0N8	0.8	B, C, S	13	14	0.15	700
ATFC-0402-0N9	0.9	B, C, S	13	14	0.15	700
ATFC-0402-1N0	1.0	B, C, S	13	12	0.15	700
ATFC-0402-1N1	1.1	B, C, S	13	12	0.15	700
ATFC-0402-1N2	1.2	B, C, S	13	12	0.15	700
ATFC-0402-1N3	1.3	B, C, S	13	10	0.25	700
ATFC-0402-1N4	1.4	B, C, S	13	10	0.25	700
ATFC-0402-1N5	1.5	B, C, S	13	10	0.25	700
ATFC-0402-1N6	1.6	B, C, S	13	10	0.25	560
ATFC-0402-1N7	1.7	B, C, S	13	10	0.25	560
ATFC-0402-1N8	1.8	B, C, S	13	10	0.25	560
ATFC-0402-1N9	1.9	B, C, S	13	8	0.35	560
ATFC-0402-2N0	2.0	B, C, S	13	8	0.35	560
ATFC-0402-2N1	2.1	B, C, S	13	8	0.35	440
ATFC-0402-2N2	2.2	B, C, S	13	8	0.35	440
ATFC-0402-2N3	2.3	B, C, S	13	8	0.35	440
ATFC-0402-2N4	2.4	B, C, S	13	8	0.35	440
ATFC-0402-2N5	2.5	B, C, S	13	8	0.35	440
ATFC-0402-2N6	2.6	B, C, S	13	8	0.35	440
ATFC-0402-2N7	2.7	B, C, S	13	8	0.35	440
ATFC-0402-2N8	2.8	B, C, S	13	6	0.45	380
ATFC-0402-2N9	2.9	B, C, S	13	6	0.45	380
ATFC-0402-3N0	3.0	B, C, S	13	6	0.45	380
ATFC-0402-3N1	3.1	B, C, S	13	6	0.45	380
ATFC-0402-3N2	3.2	B, C, S	13	6	0.45	380
ATFC-0402-3N3	3.3	B, C, S	13	6	0.45	380
ATFC-0402-3N4	3.4	B, C, S	13	6	0.55	380
ATFC-0402-3N5	3.5	B, C, S	13	6	0.55	380
ATFC-0402-3N6	3.6	B, C, S	13	6	0.55	380
ATFC-0402-3N7	3.7	B, C, S	13	6	0.55	340
ATFC-0402-3N8	3.8	B, C, S	13	6	0.55	340
ATFC-0402-3N9	3.9	B, C, S	13	6	0.55	340
ATFC-0402-4N3	4.3	B, C, S	13	6	0.65	320
ATFC-0402-4N7	4.7	B, C, S	13	6	0.65	320
ATFC-0402-5N4	5.4	B, C, S	13	6	0.85	280
ATFC-0402-5N6	5.6	B, C, S	13	6	0.85	280
ATFC-0402-5N9	5.9	B, C, S	13	6	0.85	280
ATFC-0402-6N5	6.5	B, C, S	13	6	1.05	260
ATFC-0402-6N8	6.8	B, C, S	13	6	1.05	260

THIN FILM CHIP INDUCTORS



1.00 x 0.50 x 0.32mm

ATFC-0402

RoHS/RoHS II Compliant

Key Electrical Specifications (Con'd)

Part Number ATFC-0402- Inductance Code	L(nH)	Tolerance	Q, Min @ 500MHz	SRF Min (GHz)	RDC Max (Ω)	IDC Max (mA)
ATFC-0402-7N2	7.2	B, C, S	13	6	1.05	260
ATFC-0402-8N0	8.0	B, C, S	13	5.5	1.25	220
ATFC-0402-8N1	8.1	B, C, S	13	5.5	1.25	220
ATFC-0402-8N2	8.2	B, C, S	13	5.5	1.25	220
ATFC-0402-9N1	9.1	B, C, S	13	5.5	1.25	220
ATFC-0402-10N	10.0	F, G, H, J	13	4.5	1.35	200
ATFC-0402-10N8	10.8	F, G, H, J	13	4.5	1.35	200
ATFC-0402-12N	12.0	F, G, H, J	13	3.7	1.55	180
ATFC-0402-13N8	13.8	F, G, H, J	13	3.7	1.75	180
ATFC-0402-15N	15.0	F, G, H, J	13	3.3	1.75	130
ATFC-0402-17N	17.0	F, G, H, J	13	3.1	1.95	100
ATFC-0402-18N	18.0	F, G, H, J	13	3.1	2.15	100
ATFC-0402-20N8	20.8	F, G, H, J	13	2.8	2.55	90
ATFC-0402-22N	22.0	F, G, H, J	13	2.8	2.65	90
ATFC-0402-27N	27.0	F, G, H, J	13	2.5	3.25	75
ATFC-0402-33N	33.0	J	13	2.5	4.50	75

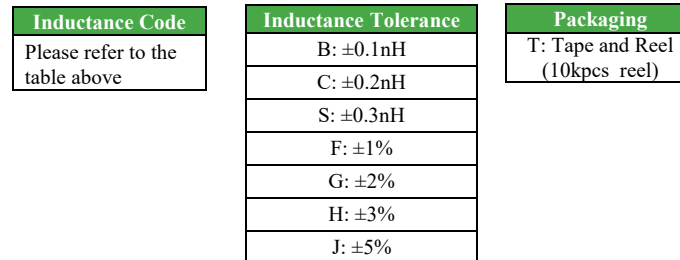
Test Conditions and Equipments

Inductance (L)

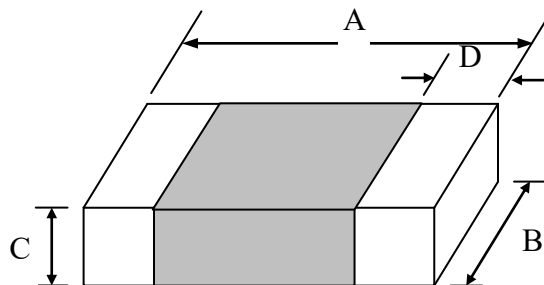
- Test equipment: Agilent4287A+Agilent16196C
- Test frequency: 500MHz

PART IDENTIFICATION:

ATFC- 0402- -

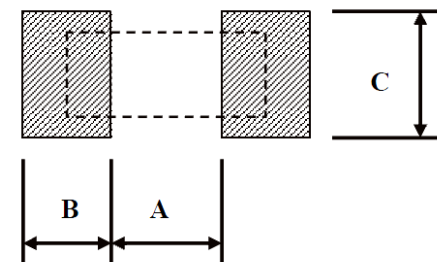


OUTLINE DIMENSIONS:



A	B	C	D
1.0±0.05	0.5±0.05	0.32±0.05	0.20±0.10

Recommended Land Pattern



A	B	C
0.50	0.45	0.60±0.2

Dimension: mm

THIN FILM CHIP INDUCTORS

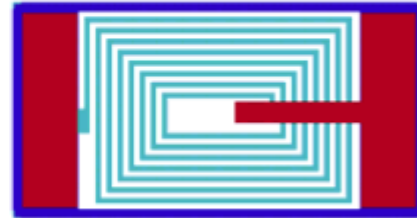


1.00 x 0.50 x 0.32mm

ATFC-0402

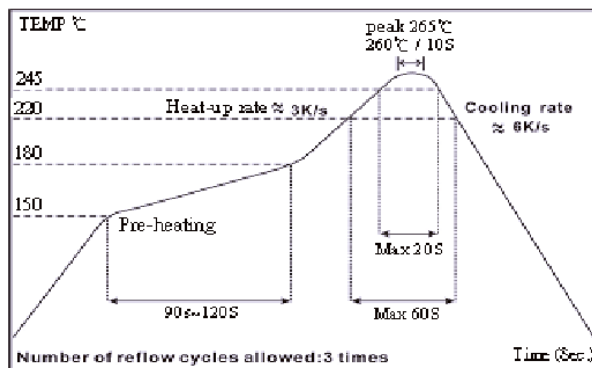
RoHS/RoHS II Compliant

MATERIALS:



No.	Material
1	Alumina Substrate
2	Inner Electrode (Ni-Cr)
3	Barrier Layer (Ni)
4	External Electrode (Sn)
5	Edge Electrode
6	Cu Circuits
7	Overcoat

REFLOW PROFILE:



THIN FILM CHIP INDUCTORS



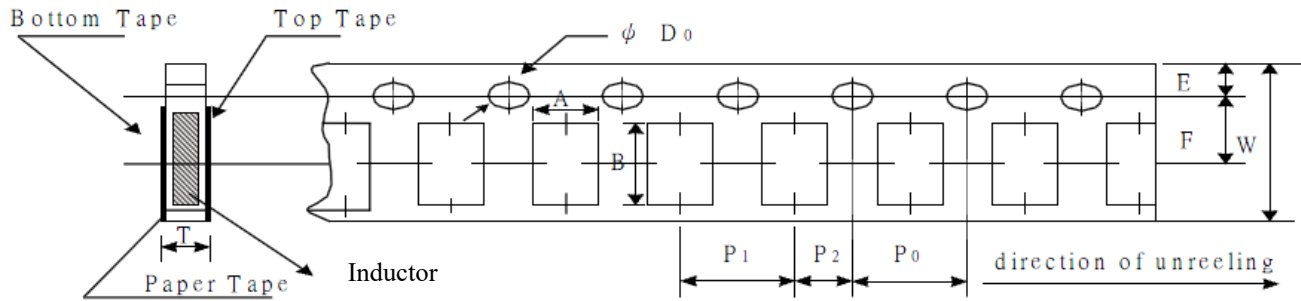
ATFC-0402

RoHS/RoHS II Compliant

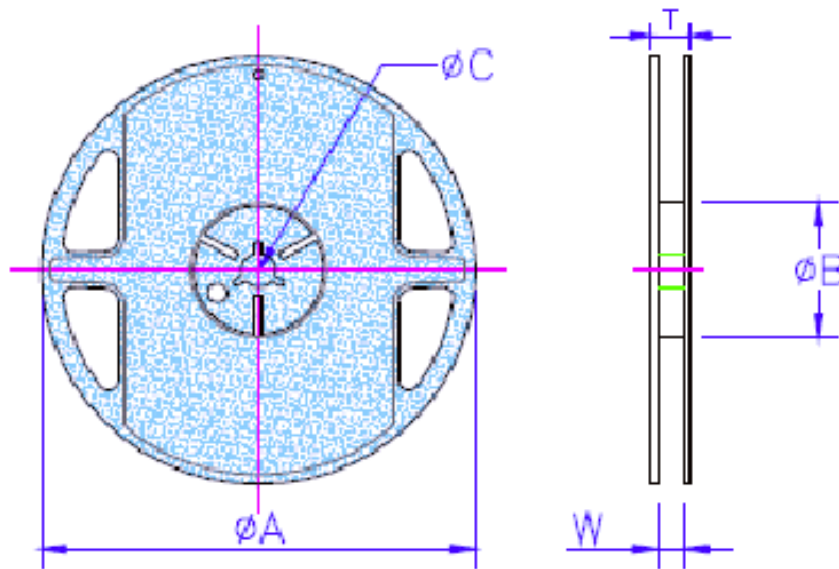
1.00 x 0.50 x 0.32mm

TAPE & REEL:

T= tape and reel (10,000pc/reel)



A	B	W	E	F	P0	P1	P2	ΦD0	T
0.70±0.05	1.16±0.05	8.00±0.10	1.75±0.05	3.50±0.05	4.00±0.10	2.00±0.05	2.00±0.05	1.55±0.05	0.40±0.03



ΦA	ΦB	ΦC	W	T
178.0±1.0	60.0±1.0	13.5±0.7	9.5±1.0	11.5±1.0

Dimension: mm

ATTENTION: Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

ABRACON:

[ATFC-0402-0N2-BT](#) [ATFC-0402-0N4-BT](#) [ATFC-0402-0N8-BT](#) [ATFC-0402-1N0-BT](#) [ATFC-0402-1N1-BT](#) [ATFC-0402-1N2-BT](#) [ATFC-0402-1N3-BT](#) [ATFC-0402-1N4-BT](#) [ATFC-0402-1N5-BT](#) [ATFC-0402-1N6-BT](#) [ATFC-0402-1N7-BT](#) [ATFC-0402-1N8-BT](#) [ATFC-0402-1N9-BT](#) [ATFC-0402-2N0-BT](#) [ATFC-0402-2N1-BT](#) [ATFC-0402-2N2-BT](#) [ATFC-0402-2N3-BT](#) [ATFC-0402-2N4-BT](#) [ATFC-0402-2N5-BT](#) [ATFC-0402-2N6-BT](#) [ATFC-0402-2N7-BT](#) [ATFC-0402-2N8-BT](#) [ATFC-0402-2N9-BT](#) [ATFC-0402-3N0-BT](#) [ATFC-0402-3N1-BT](#) [ATFC-0402-3N2-BT](#) [ATFC-0402-3N3-BT](#) [ATFC-0402-3N4-BT](#) [ATFC-0402-3N5-BT](#) [ATFC-0402-3N6-BT](#) [ATFC-0402-3N7-BT](#) [ATFC-0402-3N8-BT](#) [ATFC-0402-3N9-BT](#) [ATFC-0402-4N7-BT](#) [ATFC-0402-5N6-BT](#) [ATFC-0402-5N9-BT](#) [ATFC-0402-6N8-BT](#) [ATFC-0402-7N2-BT](#) [ATFC-0402-8N0-BT](#) [ATFC-0402-8N2-BT](#) [ATFC-0402-9N1-BT](#) [ATFC-0402-10N-GT](#) [ATFC-0402-12N-GT](#) [ATFC-0402-15N-GT](#) [ATFC-0402-17N-GT](#) [ATFC-0402-18N-GT](#) [ATFC-0402-22N-GT](#) [ATFC-0402-27N-GT](#) [ATFC-0402-20N8-G-T](#) [ATFC-0402-1N4-B-T](#) [ATFC-0402-3N2-B-T](#) [ATFC-0402-3N6-B-T](#) [ATFC-0402-3N9-B-T](#) [ATFC-0402-8N0-B-T](#) [ATFC-0402-10N-G-T](#) [ATFC-0402-3N3-B-T](#) [ATFC-0402-15N-G-T](#) [ATFC-0402-3N7-B-T](#) [ATFC-0402-1N2-B-T](#) [ATFC-0402-27N-G-T](#) [ATFC-0402-1N3-B-T](#) [ATFC-0402-8N2-B-T](#) [ATFC-0402-18N-G-T](#) [ATFC-0402-3N8-B-T](#) [ATFC-0402-22N-G-T](#) [ATFC-0402-5N6-B-T](#) [ATFC-0402-1N8-B-T](#) [ATFC-0402-2N3-B-T](#) [ATFC-0402-3N5-B-T](#) [ATFC-0402-1N1-B-T](#) [ATFC-0402-9N1-B-T](#) [ATFC-0402-2N8-B-T](#) [ATFC-0402-1N5-B-T](#) [ATFC-0402-3N0-B-T](#) [ATFC-0402-4N7-B-T](#) [ATFC-0402-2N0-B-T](#) [ATFC-0402-2N1-B-T](#) [ATFC-0402-2N7-B-T](#) [ATFC-0402-3N4-B-T](#) [ATFC-0402-13N8-G-T](#) [ATFC-0402-1N9-B-T](#) [ATFC-0402-7N2-B-T](#) [ATFC-0402-0N2-B-T](#) [ATFC-0402-2N6-B-T](#) [ATFC-0402-1N0-B-T](#) [ATFC-0402-2N5-B-T](#) [ATFC-0402-1N6-B-T](#) [ATFC-0402-2N4-B-T](#) [ATFC-0402-1N7-B-T](#) [ATFC-0402-33N-J-T](#) [ATFC-0402-3N1-B-T](#) [ATFC-0402-2N2-B-T](#) [ATFC-0402-6N8-B-T](#) [ATFC-0402-0N4-B-T](#) [ATFC-0402-0N8-B-T](#) [ATFC-0402-17N-G-T](#) [ATFC-0402-5N9-B-T](#) [ATFC-0402-2N9-B-T](#) [ATFC-0402-12N-G-T](#)