

HIGH Q THIN FILM CHIP INDUCTORS

ATFC-0201HQ



RoHS/RoHS II



0.60 x 0.30 x 0.23mm

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-0201HQ
Operating temperature :	-40°C to +85°C
Storage temperature:	25 $\pm$ 3°C; Humidity <80%RH in Tape & Reel.

Part Number ATFC-0201HQ- Inductance Code	L(nH)	Tolerance	Q, Min @ 500MHz	SRF Min (GHz)	R _{DC} Max (Ω)	I _{DC} Max (mA)
ATFC-0201HQ-0N1	0.1	B, C, S	14	6	0.05	850
ATFC-0201HQ-0N2	0.2	B, C, S	14	6	0.05	800
ATFC-0201HQ-0N3	0.3	B, C, S	14	6	0.05	800
ATFC-0201HQ-0N4	0.4	B, C, S	14	6	0.05	750
ATFC-0201HQ-0N5	0.5	B, C, S	14	6	0.10	750
ATFC-0201HQ-0N6	0.6	B, C, S	14	6	0.10	750
ATFC-0201HQ-0N7	0.7	B, C, S	14	6	0.10	600
ATFC-0201HQ-0N8	0.8	B, C, S	14	6	0.10	600
ATFC-0201HQ-0N9	0.9	B, C, S	14	6	0.10	600
ATFC-0201HQ-1N0	1.0	B, C, S	14	6	0.15	600
ATFC-0201HQ-1N1	1.1	B, C, S	14	6	0.15	600
ATFC-0201HQ-1N2	1.2	B, C, S	14	6	0.15	600
ATFC-0201HQ-1N3	1.3	B, C, S	14	6	0.15	600
ATFC-0201HQ-1N4	1.4	B, C, S	14	6	0.15	600
ATFC-0201HQ-1N5	1.5	B, C, S	14	6	0.15	600
ATFC-0201HQ-1N6	1.6	B, C, S	14	6	0.15	600
ATFC-0201HQ-1N7	1.7	B, C, S	14	6	0.20	500
ATFC-0201HQ-1N8	1.8	B, C, S	14	6	0.20	500
ATFC-0201HQ-1N9	1.9	B, C, S	14	6	0.20	500
ATFC-0201HQ-2N0	2.0	B, C, S	14	6	0.20	500
ATFC-0201HQ-2N1	2.1	B, C, S	14	6	0.20	500
ATFC-0201HQ-2N2	2.2	B, C, S	14	6	0.20	500
ATFC-0201HQ-2N3	2.3	B, C, S	14	6	0.20	500
ATFC-0201HQ-2N4	2.4	B, C, S	14	6	0.25	450
ATFC-0201HQ-2N5	2.5	B, C, S	14	6	0.25	450
ATFC-0201HQ-2N6	2.6	B, C, S	14	6	0.25	450
ATFC-0201HQ-2N7	2.7	B, C, S	14	6	0.25	450
ATFC-0201HQ-2N8	2.8	B, C, S	14	6	0.25	450
ATFC-0201HQ-2N9	2.9	B, C, S	14	6	0.25	450
ATFC-0201HQ-3N0	3.0	B, C, S	14	6	0.30	400
ATFC-0201HQ-3N1	3.1	B, C, S	14	6	0.30	400
ATFC-0201HQ-3N2	3.2	B, C, S	14	6	0.30	400
ATFC-0201HQ-3N3	3.3	B, C, S	14	6	0.30	400
ATFC-0201HQ-3N4	3.4	B, C, S	14	6	0.40	350
ATFC-0201HQ-3N5	3.5	B, C, S	14	6	0.40	350
ATFC-0201HQ-3N6	3.6	B, C, S	14	6	0.40	350
ATFC-0201HQ-3N7	3.7	B, C, S	14	6	0.40	350
ATFC-0201HQ-3N8	3.8	B, C, S	14	6	0.40	350
ATFC-0201HQ-3N9	3.9	B, C, S	14	6	0.40	350
ATFC-0201HQ-4N0	4.0	B, C, S	14	6	0.40	350



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Test Conditions and Equipments

Inductance (L)

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

PART IDENTIFICATION:

ATFC- 0201HQ- -

Inductance Code

Please refer to the table above

Inductance Tolerance

B: $\pm 0.1\text{nH}$

C: $\pm 0.2\text{nH}$

S: $\pm 0.3\text{nH}$

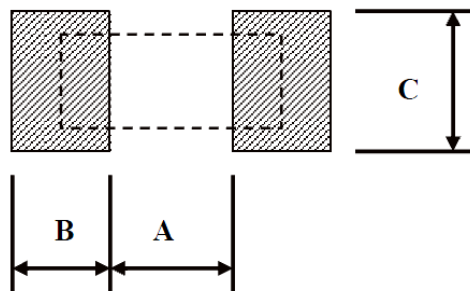
Packaging

T: Tape and Reel
(10kpcs reel)

OUTLINE DIMENSIONS:



Recommended Land Pattern

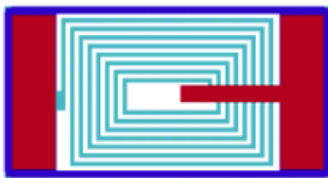
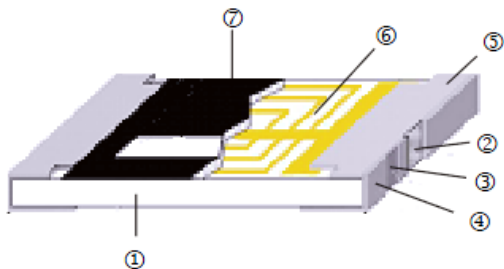


A	B	C	D
0.60 $\pm$ 0.05	0.30 $\pm$ 0.05	0.23 $\pm$ 0.05	0.15 $\pm$ 0.05

A	B	C
0.30	0.25	0.30 $\pm$ 0.2

Dimension: mm

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

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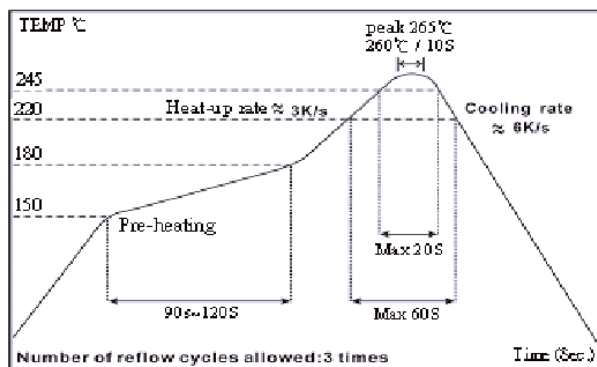


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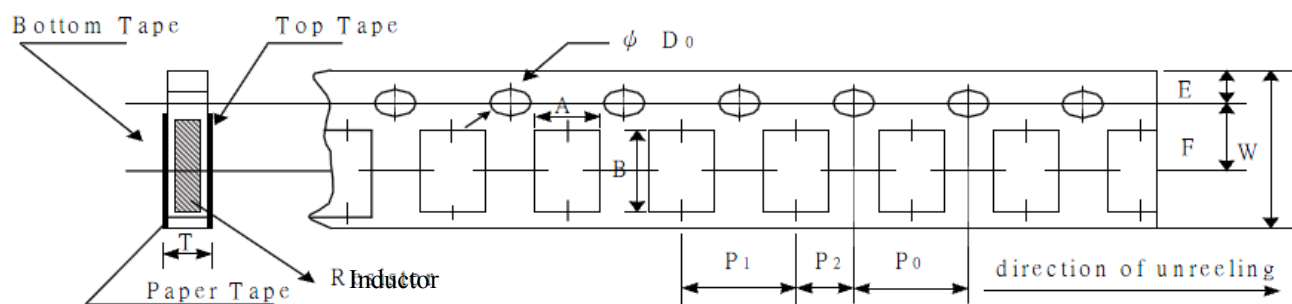
0.60 x 0.30 x 0.23mm

REFLOW PROFILE:

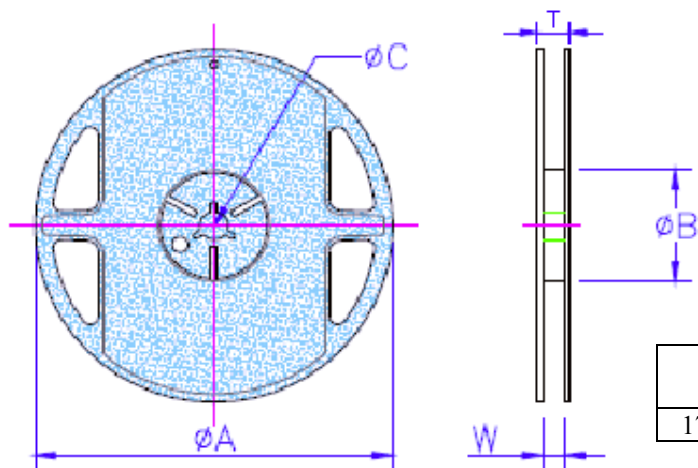


TAPE & REEL:

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



A	B	W	E	F	P ₀	P ₁	P ₂	ΦD_0	T
0.40±0.05	0.70±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±0.03	0.42±0.02



ΦA	ΦB	ΦC	W	T
178±1.0	60.0±1.0	13.5±0.70	9.5±1.0	11.5±1.0

Dimension: mm

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