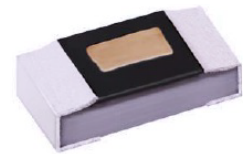


THIN FILM CHIP INDUCTORS

ATFC-0201

RoHS
Compliant

0.60 x 0.30 x 0.23mm



FEATURES:

- Photolithographic single layer ceramic chip
- High SRF, excellent Q, superior temperature stability
- Tight tolerance $\pm 0.1nH$ 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-0201 |
| Operating temperature : | -25°C to +85°C |
| Storage temperature: | 25 \pm 3°C; Humidity <80%RH in Tape & Reel. |

| Part Number ATFC-0201- Inductance Code | L(nH) | Tolerance (\pm %) | Q, Min @ 500MHz | SRF Min (GHz) | R _{DC} Max (Ω) | I _{DC} Max (mA) |
|--|-------|-------------------------|-----------------|------------------|-------------------------------------|-----------------------------|
| ATFC-0201-0N1 | 0.1 | B, C, S | 8 | 9 | 0.20 | 400 |
| ATFC-0201-0N2 | 0.2 | B, C, S | 8 | 9 | 0.20 | 400 |
| ATFC-0201-0N3 | 0.3 | B, C, S | 8 | 9 | 0.20 | 400 |
| ATFC-0201-0N4 | 0.4 | B, C, S | 8 | 9 | 0.25 | 350 |
| ATFC-0201-0N5 | 0.5 | B, C, S | 8 | 9 | 0.25 | 350 |
| ATFC-0201-0N6 | 0.6 | B, C, S | 8 | 9 | 0.25 | 350 |
| ATFC-0201-0N7 | 0.7 | B, C, S | 8 | 9 | 0.30 | 300 |
| ATFC-0201-0N8 | 0.8 | B, C, S | 8 | 9 | 0.30 | 300 |
| ATFC-0201-0N9 | 0.9 | B, C, S | 8 | 9 | 0.30 | 300 |
| ATFC-0201-1N0 | 1.0 | B, C, S | 8 | 9 | 0.30 | 300 |
| ATFC-0201-1N1 | 1.1 | B, C, S | 8 | 9 | 0.35 | 300 |
| ATFC-0201-1N2 | 1.2 | B, C, S | 8 | 9 | 0.35 | 300 |
| ATFC-0201-1N3 | 1.3 | B, C, S | 8 | 9 | 0.45 | 250 |
| ATFC-0201-1N4 | 1.4 | B, C, S | 8 | 9 | 0.45 | 250 |
| ATFC-0201-1N5 | 1.5 | B, C, S | 8 | 9 | 0.45 | 250 |
| ATFC-0201-1N6 | 1.6 | B, C, S | 8 | 9 | 0.55 | 200 |
| ATFC-0201-1N7 | 1.7 | B, C, S | 8 | 9 | 0.55 | 200 |
| ATFC-0201-1N8 | 1.8 | B, C, S | 8 | 9 | 0.55 | 200 |
| ATFC-0201-1N9 | 1.9 | B, C, S | 8 | 9 | 0.55 | 200 |
| ATFC-0201-2N0 | 2.0 | B, C, S | 8 | 8 | 0.70 | 200 |
| ATFC-0201-2N1 | 2.1 | B, C, S | 8 | 8 | 0.70 | 200 |
| ATFC-0201-2N2 | 2.2 | B, C, S | 8 | 8 | 0.70 | 200 |
| ATFC-0201-2N3 | 2.3 | B, C, S | 8 | 8 | 0.80 | 150 |
| ATFC-0201-2N4 | 2.4 | B, C, S | 8 | 8 | 0.80 | 150 |
| ATFC-0201-2N5 | 2.5 | B, C, S | 8 | 8 | 0.80 | 150 |
| ATFC-0201-2N6 | 2.6 | B, C, S | 8 | 8 | 0.80 | 150 |
| ATFC-0201-2N7 | 2.7 | B, C, S | 8 | 8 | 0.80 | 150 |
| ATFC-0201-2N8 | 2.8 | B, C, S | 8 | 6 | 1.00 | 150 |
| ATFC-0201-2N9 | 2.9 | B, C, S | 8 | 6 | 1.00 | 150 |
| ATFC-0201-3N0 | 3.0 | B, C, S | 8 | 6 | 1.00 | 150 |
| ATFC-0201-3N1 | 3.1 | B, C, S | 8 | 6 | 1.00 | 150 |
| ATFC-0201-3N2 | 3.2 | B, C, S | 8 | 6 | 1.00 | 150 |
| ATFC-0201-3N3 | 3.3 | B, C, S | 8 | 6 | 1.00 | 150 |
| ATFC-0201-3N4 | 3.4 | B, C, S | 8 | 6 | 1.20 | 150 |
| ATFC-0201-3N5 | 3.5 | B, C, S | 8 | 6 | 1.20 | 150 |
| ATFC-0201-3N6 | 3.6 | B, C, S | 8 | 6 | 1.20 | 150 |
| ATFC-0201-3N7 | 3.7 | B, C, S | 8 | 6 | 1.20 | 150 |
| ATFC-0201-3N8 | 3.8 | B, C, S | 8 | 6 | 1.20 | 150 |
| ATFC-0201-3N9 | 3.9 | B, C, S | 8 | 6 | 1.20 | 150 |

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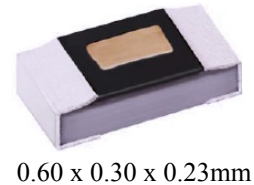
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THIN FILM CHIP INDUCTORS

ATFC-0201

RoHS
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Key Electrical Specifications (Con'd)

| Part Number AITFC-0201- Inductance Code | L(nH) | Tolerance (±%) | Q, Min @ 500MHz | SRF Min (GHz) | R _{DC} Max (Ω) | I _{DC} Max (mA) |
|---|-------|-------------------|-----------------|------------------|----------------------------|-----------------------------|
| ATFC-0201-4N0 | 4.0 | B, C, S | 8 | 6 | 1.20 | 150 |
| ATFC-0201-4N4 | 4.4 | B, C, S | 8 | 6 | 1.30 | 140 |
| ATFC-0201-4N7 | 4.7 | B, C, S | 8 | 6 | 1.40 | 130 |
| ATFC-0201-4N9 | 4.9 | B, C, S | 8 | 6 | 1.60 | 130 |
| ATFC-0201-5N6 | 5.6 | G, J | 8 | 4 | 1.80 | 130 |
| ATFC-0201-6N1 | 6.1 | G, J | 8 | 4 | 2.00 | 120 |
| ATFC-0201-6N8 | 6.8 | G, J | 8 | 4 | 2.30 | 110 |
| ATFC-0201-7N4 | 7.4 | G, J | 8 | 4 | 2.80 | 110 |
| ATFC-0201-8N2 | 8.2 | G, J | 8 | 3 | 3.00 | 110 |
| ATFC-0201-9N1 | 9.1 | G, J | 8 | 3 | 3.25 | 100 |
| ATFC-0201-9N2 | 9.2 | G, J | 8 | 3 | 3.25 | 100 |
| ATFC-0201-10N | 10 | G, J | 8 | 2 | 3.50 | 80 |

Test Conditions and Equipments

Inductance (L)

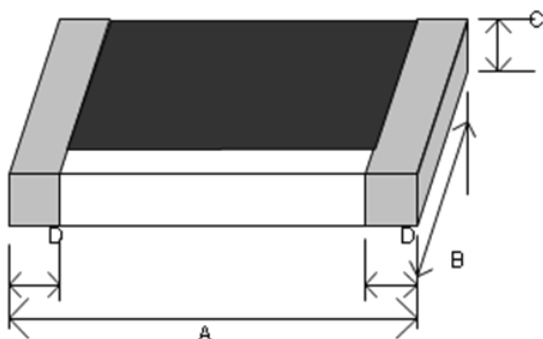
- Test equipment: Agilent4287A+Agilent16196C
- Test frequency: 500MHz

PART IDENTIFICATION:

ATFC- 0201- [] [] - []

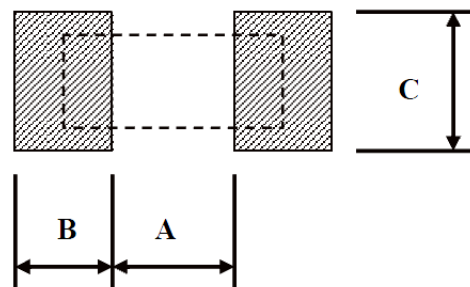
| Inductance Code | Inductance Tolerance | Packaging |
|---------------------------------|----------------------|-------------------------------------|
| Please refer to the table above | J: ±5% | T: Tape and Reel (10kpcs / reel) |
| | G: ±2% | |
| | S: ±0.3nH | |
| | C: ±0.2nH | |
| | B: ±0.1nH | |

OUTLINE DIMENSIONS:



| A | B | C | D |
|-----------|-----------|-----------|-----------|
| 0.60±0.05 | 0.30±0.05 | 0.23±0.05 | 0.15±0.05 |

Recommended Land Pattern



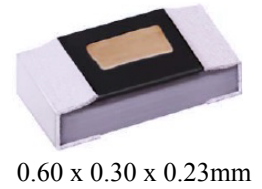
| A | B | C |
|------|------|----------|
| 0.30 | 0.25 | 0.30±0.2 |

Dimension: mm

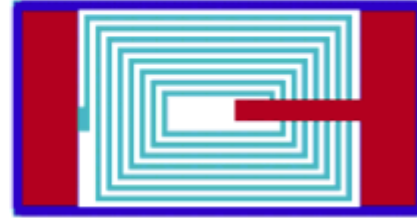
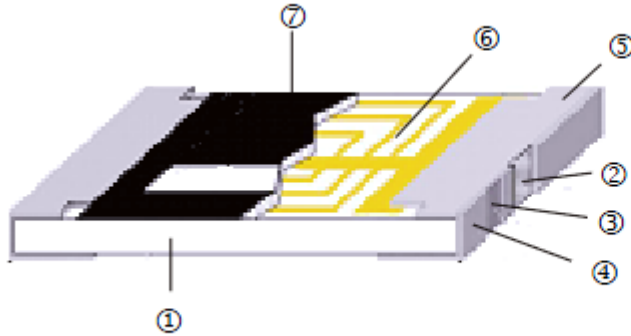
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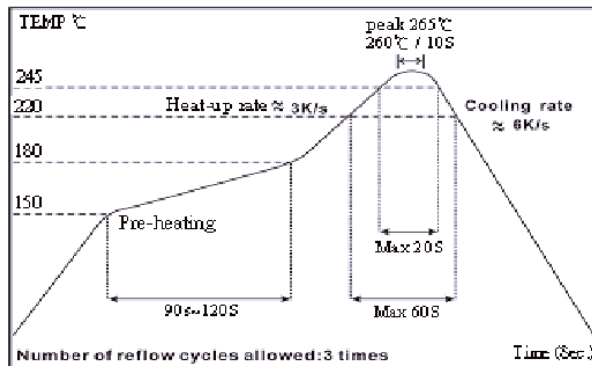


MATERIALS:



| 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 |

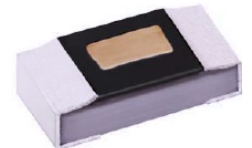
REFLOW PROFILE:



THIN FILM CHIP INDUCTORS

ATFC-0201

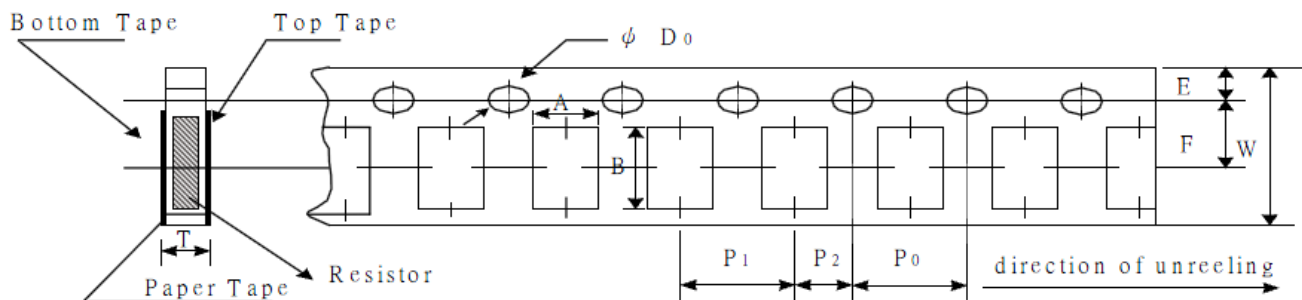
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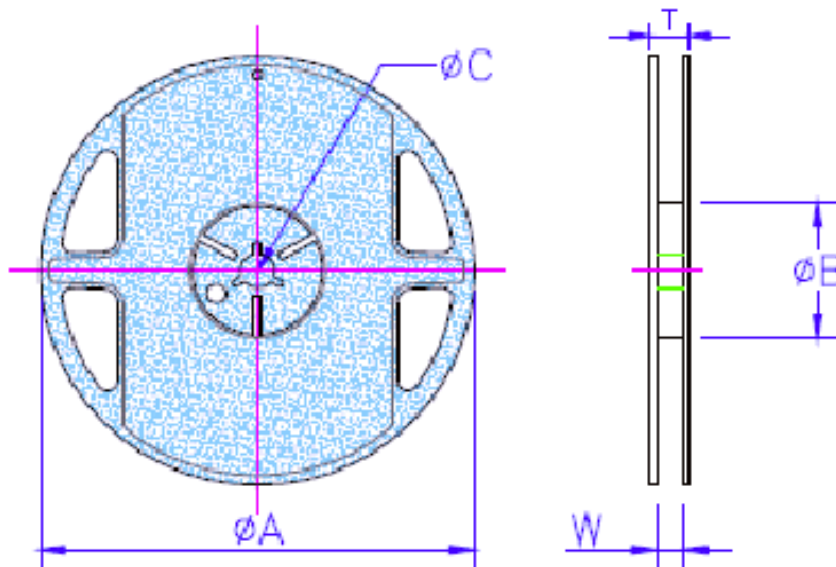
0.60 x 0.30 x 0.23mm

TAPE & REEL:

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



| A | B | W | E | F | P0 | P1 | P2 | ΦD0 | 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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