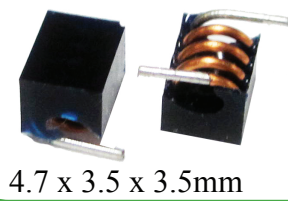


# SMT Air Coil Inductor

AIAC-1812

**RoHS**  
Compliant



4.7 x 3.5 x 3.5mm

## FEATURES:

- High current design
- Wide Range Frequency Response
- Excellent Q & SRF
- Standard flat cap top suitable for automatic placement.

## APPLICATIONS:

- Widely used in Cordless Phones, High Frequency Communication Equipments, Intercom, CATV,RFID
- Suitable for metal sensors and proximity sensors
- Noise suppression for RF power supply/bias
- I/O filtering, frequency selection for audio devices such as Loudspeakers,Hifi
- Impedance Matching for transceivers
- Improves switch isolation for RF circuit

## STANDARD SPECIFICATIONS:

### PARAMETERS

|                        |                  |
|------------------------|------------------|
| ABRACON P/N:           | AIAC-1812        |
| Operating temperature: | -40 °C ~ +125 °C |
| Storage temperature:   | -25°C to + 60°C  |

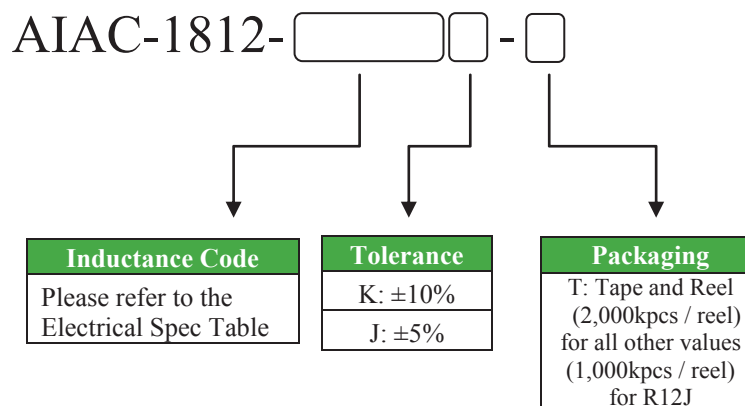
| Part Number   | Inductance | Tolerance | DCR (Max) | Q(Min) | SRF(Min) | Rated Current (Max) | Inductance Code |
|---------------|------------|-----------|-----------|--------|----------|---------------------|-----------------|
| Units         | nH         | %         | mΩ        |        | G Hz     | A                   |                 |
| Symbol        | L          | J, K      | DCR       |        |          | IDC                 |                 |
| AIAC-1812-22N | 22         | K         | 4.8       | 100.0  | 3.20     | 3.2                 | 22NK            |
| AIAC-1812-27N | 27         | K         | 4.6       | 100.0  | 2.70     | 3.5                 | 27NK            |
| AIAC-1812-33N | 33         | K         | 5.9       | 100.0  | 2.50     | 3.0                 | 33NK            |
| AIAC-1812-39N | 39         | J         | 5.6       | 100.0  | 2.10     | 2.8                 | 39NJ            |
| AIAC-1812-47N | 47         | J         | 6.9       | 100.0  | 2.10     | 2.8                 | 47NJ            |
| AIAC-1812-56N | 56         | J         | 6.4       | 100.0  | 1.50     | 2.9                 | 56NJ            |
| AIAC-1812-68N | 68         | J         | 8.1       | 100.0  | 1.50     | 2.9                 | 68NJ            |
| AIAC-1812-82N | 82         | J         | 8.9       | 100.0  | 1.30     | 2.6                 | 82NJ            |
| AIAC-1812-R10 | 100        | J         | 10.0      | 100.0  | 1.20     | 2.5                 | R10J            |
| AIAC-1812-R12 | 120        | J         | 11.1      | 100.0  | 1.10     | 2.2                 | R12J            |

## Test Conditions and equipments

Test frequency: 150MHz

Equipment: HP4191A

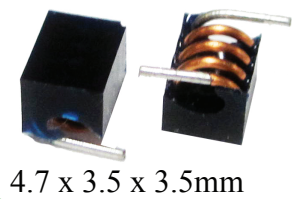
## PART IDENTIFICATION:



# SMT Air Coil Inductor

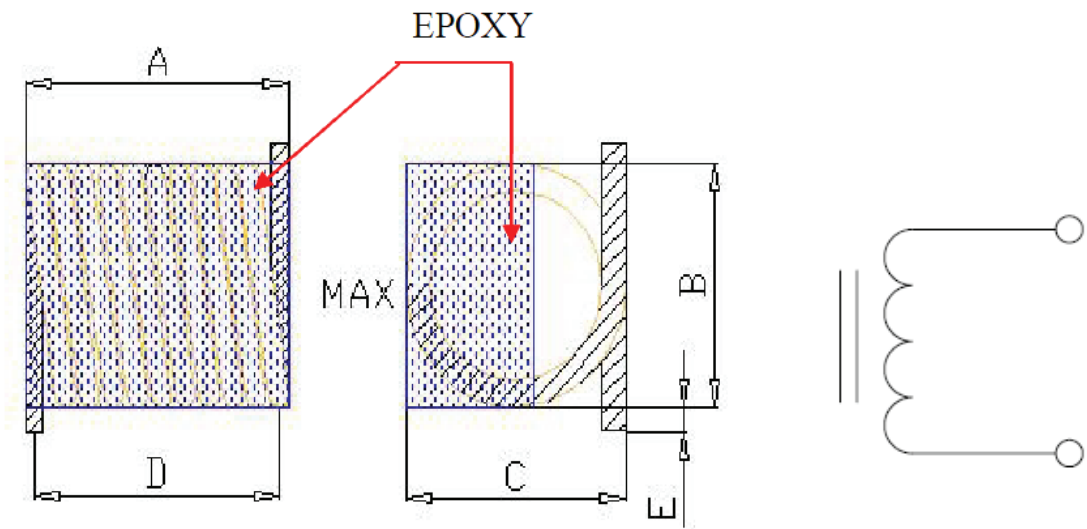
AIAC-1812

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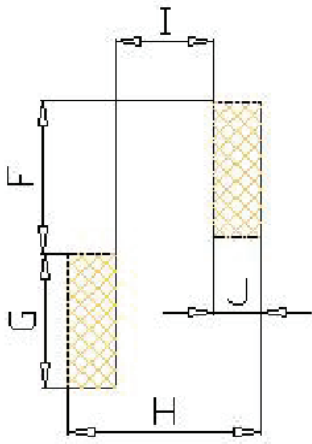
4.7 x 3.5 x 3.5mm

## OUTLINE DRAWING:



| Inductance code | A       | B       | C       | D       | E       |
|-----------------|---------|---------|---------|---------|---------|
| All others      | 4.7±0.3 | 3.5±0.2 | 3.5±0.2 | 4.3±0.4 | 1.0±0.3 |
| R12J only       | 4.9±0.3 | 3.8±0.2 | 3.8±0.2 |         |         |

### Recommended Landing Pattern



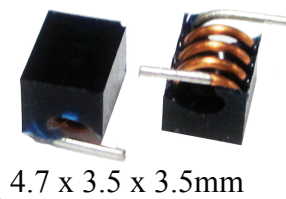
| F   | G   | H   | I   | J   |
|-----|-----|-----|-----|-----|
| 2.7 | 5.2 | 5.8 | 2.9 | 1.5 |

Dimension: inch (mm)

# SMT Air Coil Inductor

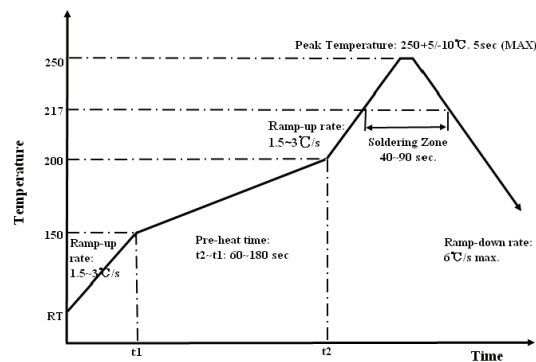
AIAC-1812

**RoHS**  
Compliant



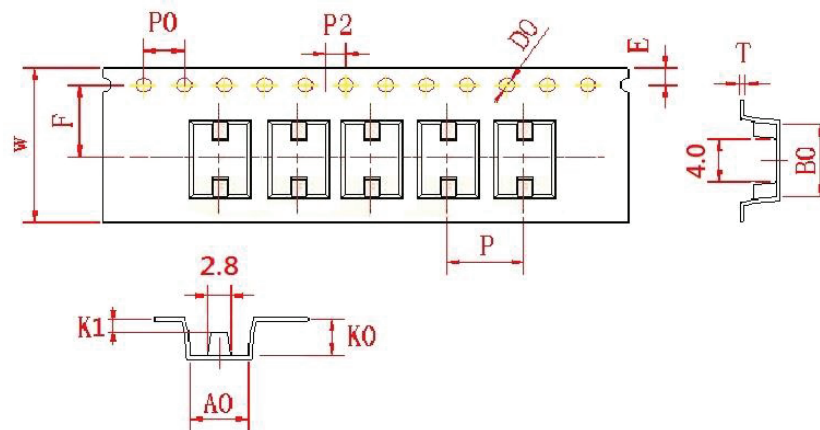
4.7 x 3.5 x 3.5mm

## REFLOW PROFILE:

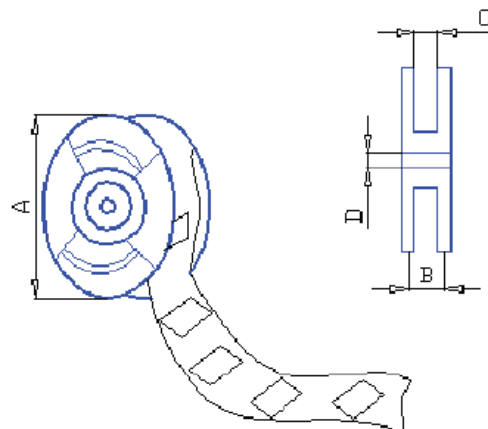


## TAPE & REEL:

**Packing (For R12J only)**  
**T: 1,000pcs / reel**



| W      | A0      | B0      | K0      | K1      | P       | F       | E        | D0         | P0      | P2      | T        |
|--------|---------|---------|---------|---------|---------|---------|----------|------------|---------|---------|----------|
| 16±0.3 | 5.7±0.1 | 7.1±0.1 | 4.2±0.1 | 2.0±0.1 | 8.0±0.1 | 7.5±0.1 | 1.75±0.1 | 1.5+0.1/-0 | 4.0±0.1 | 2.0±0.1 | 0.4±0.05 |



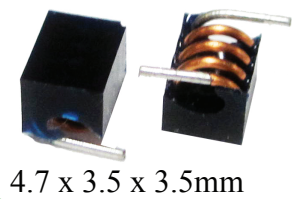
|   |      |
|---|------|
| A | 330  |
| B | 22   |
| C | 16   |
| D | 13.5 |

**Dimension: mm**

# SMT Air Coil Inductor

AIAC-1812

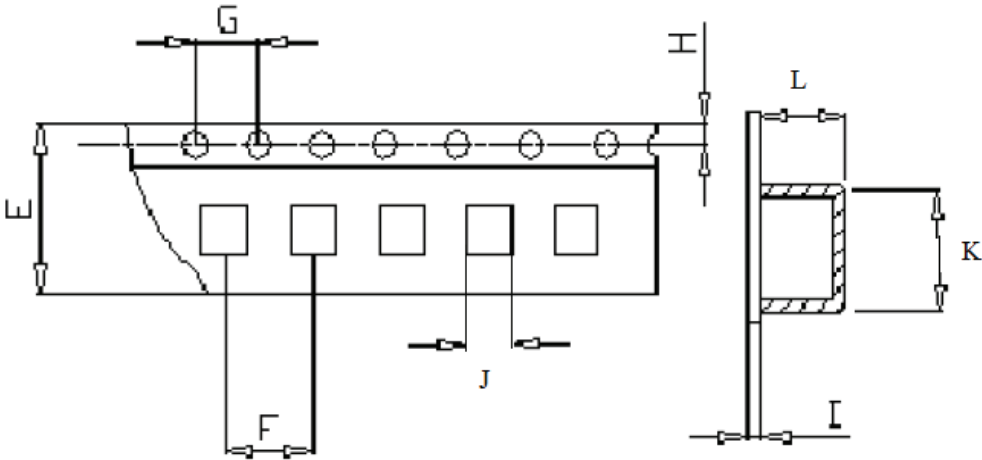
RoHS  
Compliant



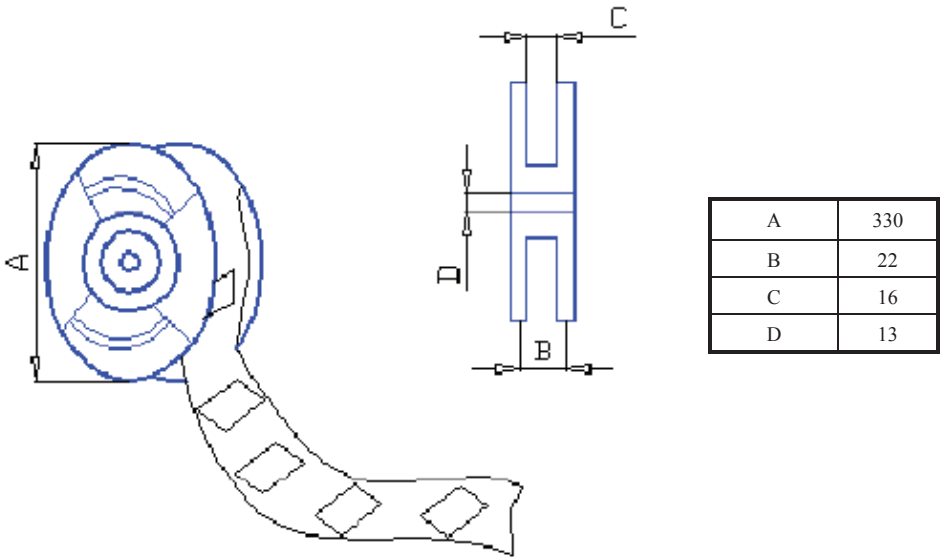
4.7 x 3.5 x 3.5mm

## TAPE & REEL:

Packing (For all part numbers other than R12J)  
T: 2,000pcs / reel



| E  | F | G | H    | I   | J max    | K max    | L max    |
|----|---|---|------|-----|----------|----------|----------|
| 16 | 8 | 4 | 1.75 | 0.4 | 5.70±0.1 | 7.10±0.1 | 4.20±0.1 |



|   |     |
|---|-----|
| A | 330 |
| B | 22  |
| C | 16  |
| D | 13  |

Dimension: mm

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