

# Axial Power Inductor



AIAP-03

Request Samples



Check Inventory



22.9 x  $\phi$ 11.4mm

RoHS/RoHS II Compliant

MSL Level = N/A

## Features

- Low-cost axial leaded inductors
- High current rating
- Wide inductance range
- Covered with UL heat shrink tubing

## Applications

- Covered with UL heat shrink tubing
- Switching circuits
- TV and audio equipment
- Telecommunication devices
- RF and other filters

## Electrical Specifications

| Part No.    | L( $\mu$ H) | Tolerance | DCR( $\Omega$ ) | I <sub>DC</sub> (A) | Inductance Code |
|-------------|-------------|-----------|-----------------|---------------------|-----------------|
|             |             | %         | Max             | Max                 |                 |
| AIAP-03-3R9 | 3.9         | M         | 0.007           | 15.50               | 3R9M            |
| AIAP-03-4R7 | 4.7         | M         | 0.008           | 13.90               | 4R7M            |
| AIAP-03-5R6 | 5.6         | M         | 0.011           | 12.60               | 5R6M            |
| AIAP-03-6R8 | 6.8         | M         | 0.013           | 11.60               | 6R8M            |
| AIAP-03-8R2 | 8.2         | K         | 0.017           | 9.89                | 8R2K            |
| AIAP-03-100 | 10          | K         | 0.019           | 8.70                | 100K            |
| AIAP-03-120 | 12          | K         | 0.020           | 8.21                | 120K            |
| AIAP-03-150 | 15          | K         | 0.022           | 7.34                | 150K            |
| AIAP-03-180 | 18          | K         | 0.023           | 6.64                | 180K            |
| AIAP-03-220 | 22          | K         | 0.026           | 6.07                | 220K            |
| AIAP-03-270 | 27          | K         | 0.027           | 5.36                | 270K            |
| AIAP-03-330 | 33          | K         | 0.032           | 4.83                | 330K            |
| AIAP-03-390 | 39          | K         | 0.033           | 4.36                | 390K            |
| AIAP-03-470 | 47          | K         | 0.035           | 3.98                | 470K            |
| AIAP-03-560 | 56          | K         | 0.037           | 3.66                | 560K            |
| AIAP-03-680 | 68          | K         | 0.047           | 3.31                | 680K            |
| AIAP-03-820 | 82          | K         | 0.060           | 3.10                | 820K            |
| AIAP-03-101 | 100         | K         | 0.090           | 2.79                | 101K            |
| AIAP-03-121 | 120         | K         | 0.113           | 2.54                | 121K            |
| AIAP-03-151 | 150         | K         | 0.129           | 2.22                | 151K            |
| AIAP-03-181 | 180         | K         | 0.150           | 1.98                | 181K            |
| AIAP-03-221 | 220         | K         | 0.162           | 1.89                | 221K            |
| AIAP-03-271 | 270         | K         | 0.208           | 1.63                | 271K            |
| AIAP-03-331 | 330         | K         | 0.212           | 1.51                | 331K            |
| AIAP-03-391 | 390         | K         | 0.281           | 1.39                | 391K            |
| AIAP-03-471 | 470         | K         | 0.380           | 1.24                | 471K            |
| AIAP-03-561 | 560         | K         | 0.420           | 1.17                | 561K            |
| AIAP-03-681 | 680         | K         | 0.548           | 1.050               | 681K            |
| AIAP-03-821 | 820         | K         | 0.655           | 0.970               | 821K            |



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## Electrical Specifications (Cont'd)

| Part No.    | L( $\mu$ H) | Tolerance | DCR( $\Omega$ ) | I <sub>DC</sub> (A) | Inductance Code |
|-------------|-------------|-----------|-----------------|---------------------|-----------------|
|             |             | %         | Max             | Max                 |                 |
| AIAP-03-102 | 1000        | K         | 0.844           | 0.870               | 102K            |
| AIAP-03-122 | 1200        | K         | 1.04            | 0.790               | 122K            |
| AIAP-03-152 | 1500        | K         | 1.18            | 0.700               | 152K            |
| AIAP-03-182 | 1800        | K         | 1.56            | 0.640               | 182K            |
| AIAP-03-222 | 2200        | K         | 2.00            | 0.580               | 222K            |
| AIAP-03-272 | 2700        | K         | 2.06            | 0.530               | 272K            |
| AIAP-03-332 | 3300        | K         | 2.63            | 0.470               | 332K            |
| AIAP-03-392 | 3900        | K         | 2.75            | 0.430               | 392K            |
| AIAP-03-472 | 4700        | K         | 3.19            | 0.390               | 472K            |
| AIAP-03-562 | 5600        | K         | 3.92            | 0.359               | 562K            |
| AIAP-03-682 | 6800        | K         | 5.69            | 0.322               | 682K            |
| AIAP-03-822 | 8200        | K         | 6.32            | 0.293               | 822K            |
| AIAP-03-103 | 10000       | K         | 7.30            | 0.266               | 103K            |
| AIAP-03-123 | 12000       | K         | 10.0            | 0.257               | 123K            |
| AIAP-03-153 | 15000       | K         | 11.2            | 0.230               | 153K            |
| AIAP-03-183 | 18000       | K         | 15.2            | 0.210               | 183K            |
| AIAP-03-223 | 22000       | K         | 16.8            | 0.19                | 223K            |
| AIAP-03-273 | 27000       | K         | 18.6            | 0.171               | 273K            |
| AIAP-03-333 | 33000       | K         | 26.7            | 0.155               | 333K            |
| AIAP-03-393 | 39000       | K         | 29.0            | 0.143               | 393K            |
| AIAP-03-473 | 47000       | K         | 31.8            | 0.131               | 473K            |
| AIAP-03-563 | 56000       | K         | 42.6            | 0.119               | 563K            |
| AIAP-03-683 | 68000       | K         | 46.9            | 0.108               | 683K            |
| AIAP-03-823 | 82000       | K         | 64.9            | 0.099               | 823K            |
| AIAP-03-104 | 100000      | K         | 71.1            | 0.098               | 104K            |
| AIAP-03-124 | 120000      | K         | 37.0            | 0.070               | 124K            |

### Test Conditions:

Test frequency: 1kHz 0.25Vrms

I<sub>DC</sub>: 10% inductance drops typical

**Operating Temperature:** -40°C ~ +125 °C (including self-heating)

**Storage Temperature:** -40°C ~ +125 °C

**AIAP-03 is RoHS/RoHS II Compliant and Pb free**

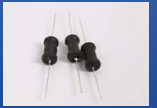


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RoHS/RoHS II Compliant  
MSL Level = N/A

## Part Identification

AIAP-03-

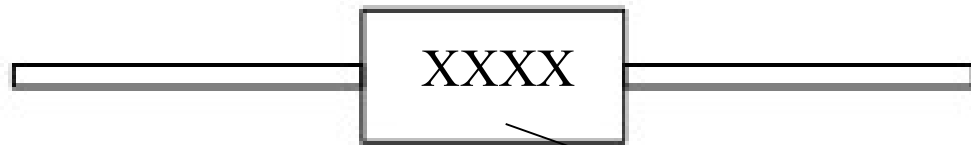
### Inductance Code

Please refer to the table above

### Tolerance

K:  $\pm$ 10%  
M:  $\pm$ 20%

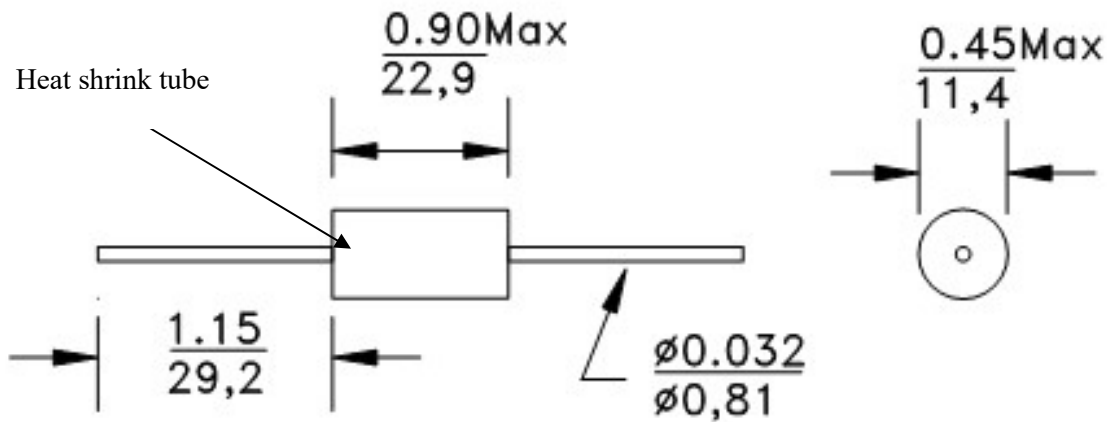
## Marking



Marking Method= Ink Marking

Inductance Code  
e.g. 101K

## Mechanical Specifications



Dimension: inch/mm



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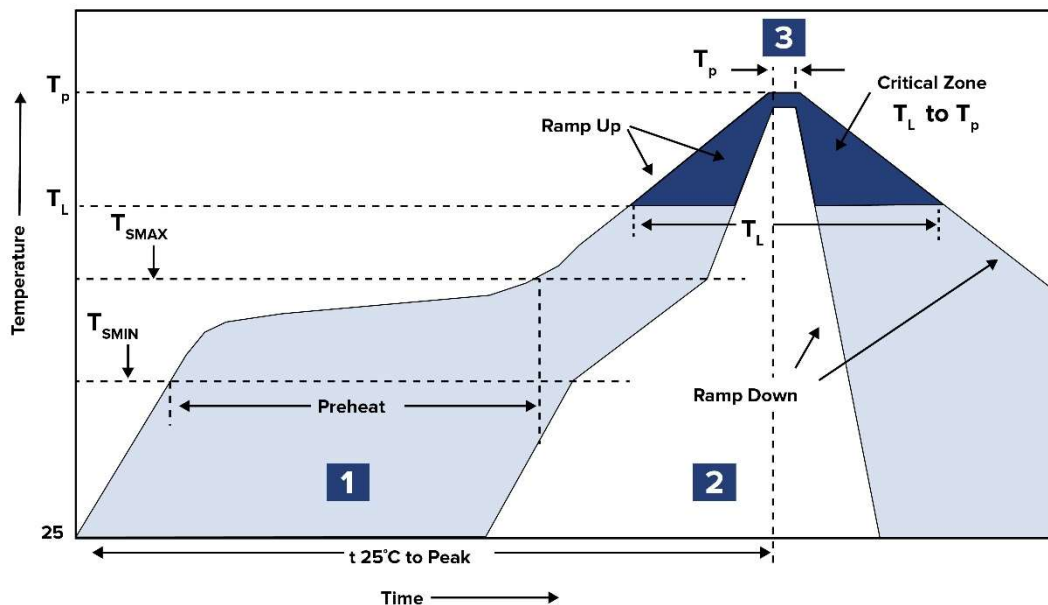


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 RoHS/RoHS II Compliant  
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## Packing

64 pcs/plate

## Reflow Profile



| Zone | Description | Temperature                               | Times         |
|------|-------------|---|---------------|
| 1    | Preheat     | $T_{SMIN} \sim T_{SMAX}$<br>150°C ~ 180°C | 60 ~ 120 sec. |
| 2    | Reflow      | $T_L$<br>230°C                            | 30 ~ 40 sec.  |
| 3    | Peak heat   | $T_P$<br>260°C $\pm$ 5°C                  | 10 sec. MAX   |

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