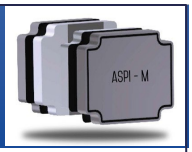
# Metal Alloy SMD Power Inductor




## ASPI-M3015 Series

Request Samples Check Inventory

**3.0 x 3.0 x 1.5/1.6 mm**
**RoHS/RoHS II Compliant**
**MSL Level = 1**

## Features

- Space saving small footprint 3.0x3.0mm (9mm$^2$)
- Low profile design
- High RMS current carrying up to 5A
- High saturation current—up to 9A
- Low DCR minimizes heat dissipation—as low as 25mΩ
- Wide inductance range—0.47 to 10µH
- Wide -40°C to 125°C operating temperature range

## Applications

- IoT/Industrial IoT
- Drones and robotics
- Audio and video
- Switch mode power supplies (SMPS)
- Medical and medical monitoring
- Class D amplifiers
- DC/DC converter
- LED drivers and lighting
- POL Converters

## Electrical Specifications

| Part Number | Inductance | Tolerance | DC Resistance | | Saturation Current | | Temperature Rise Current | |
|---|---|---|---|---|---|---|---|---|
| | 0.1MHz/1.0V | | Max | Typ. | Max | Typ. | Max | Typ |
| Units | µH | % | mΩ | | A | | A | |
| Symbol | L | M | DCR | | Isat | | Irms | |
| ASPI-M3015-R47 | 0.47 | 20% | 30 | 25 | 7.50 | 9.00 | 4.60 | 5.00 |
| ASPI-M3015-R68 | 0.68 | 20% | 54 | 45 | 5.30 | 6.30 | 3.60 | 3.90 |
| ASPI-M3015-1R0 | 1.00 | 20% | 48 | 40 | 5.30 | 6.30 | 3.60 | 3.95 |
| ASPI-M3015-1R5 | 1.50 | 20% | 54 | 45 | 3.60 | 4.30 | 3.40 | 3.70 |
| ASPI-M3015-2R2 | 2.20 | 20% | 78 | 65 | 3.10 | 4.00 | 2.80 | 3.10 |
| ASPI-M3015-3R3 | 3.30 | 20% | 102 | 85 | 2.50 | 3.20 | 2.45 | 2.65 |
| ASPI-M3015-4R7 | 4.70 | 20% | 152 | 126 | 2.20 | 2.60 | 2.00 | 2.20 |
| ASPI-M3015-6R8 | 6.80 | 20% | 220 | 183 | 1.80 | 2.00 | 1.65 | 1.80 |
| ASPI-M3015-100 | 10.0 | 20% | 320 | 270 | 1.50 | 1.80 | 1.35 | 1.50 |

**Test Conditions**

**Isat**: DC current at which the inductance drops 30% from its value without current.
**Irms:** DC current that causes the temperature rise (ΔT, approximate 40 ˚C) from 25°C ambient

**Operating Temperature:** -40˚C ~ +125˚C (including self-temperature rise)
**Storage Condition:** -40˚C ~ +125˚C (on board), -10˚C ~ +40˚C (with packaging) and R.H. 60 max
**Operating Voltage:** 20V (across inductor)
**ASPI-M3015 Series is RoHS Compliant and Pb free**

ABRACON

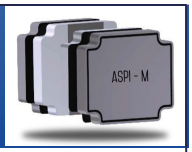
5101 Hidden Creek Ln, Spicewood TX 78669
Phone: 512-371-6159 Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

**REVISION B : 4/16/2026**

ABRACON IS ISO9001-2015 CERTIFIED

Downloaded from Arrow.com.

# Metal Alloy SMD Power Inductor




**ASPI-M3015 Series**

Request Samples Check Inventory

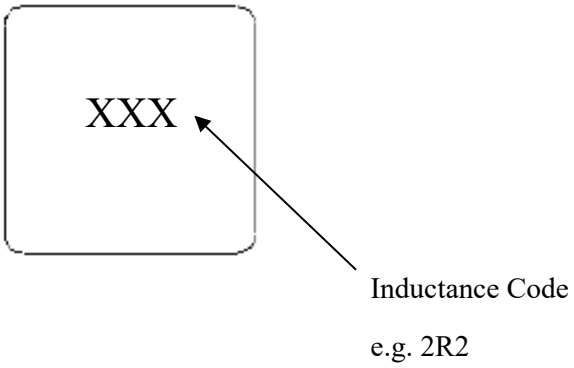
**3.0 x 3.0 x 1.5/1.6 mm**
**RoHS/RoHS II Compliant**
**MSL Level = 1**

## Part Identification

ASPI-M3015-□□□

| Inductance Code | Tolerance | Packaging |
|---|---|---|
| See Electrical Specification table | M = ± 20% | T: Tape and Reel (See Packaging) |

## Marking




**Marking Method = Ink Marking**

ABRACON

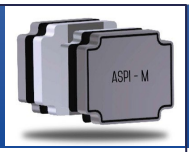
5101 Hidden Creek Ln, Spicewood TX 78669
Phone: 512-371-6159 Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

**REVISION B : 4/16/2026**

ABRACON IS
ISO9001-2015
CERTIFIED

Downloaded from Arrow.com.

# Metal Alloy SMD Power Inductor

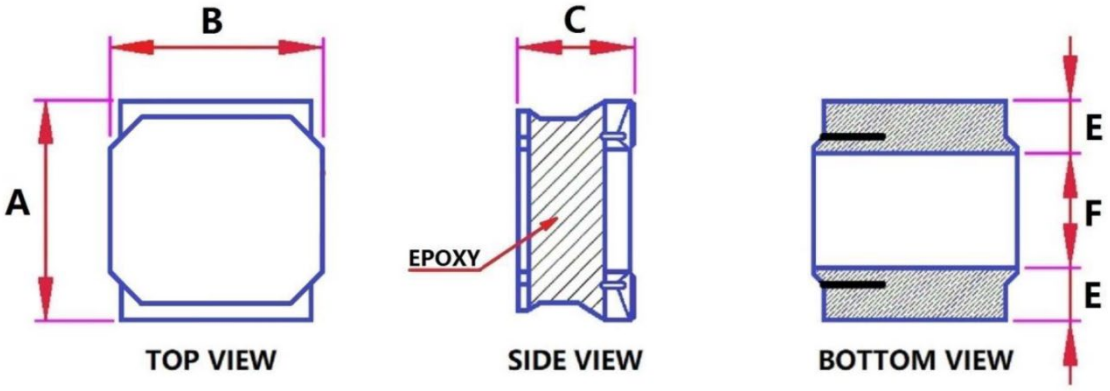



## ASPI-M3015 Series

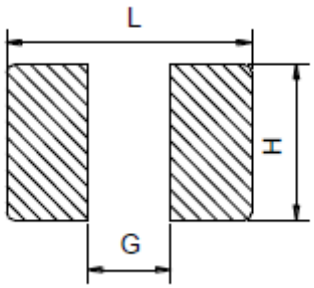
Request Samples Check Inventory

**3.0 x 3.0 x 1.5/1.6 mm**
**RoHS/RoHS II Compliant**
**MSL Level = 1**

## Mechanical Specifications




| Parts | A | B | C | E (ref) | F (ref) |
|---|---|---|---|---|---|
| **ASPI-M3015-R68** | 3.0±0.2 | 3.0±0.2 | 1.60 MAX | 0.80 | 1.3 |
| **All others** | 3.0±0.2 | 3.0±0.2 | 1.50 MAX | 0.95 | 1.20 |




| Parts | L (ref) | G (ref) | H (ref) |
|---|---|---|---|
| **ASPI-M3015-R68** | 3.4 | 0.8 | 2.7 |
| **All others** | 3.1 | 1.2 | 2.7 |

Dimensions: mm

ABRACON

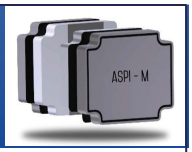
5101 Hidden Creek Ln, Spicewood TX 78669
Phone: 512-371-6159 Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

**REVISION B : 4/16/2026**

ABRACON IS
ISO9001-2015
CERTIFIED

Downloaded from Arrow.com.

# Metal Alloy SMD Power Inductor

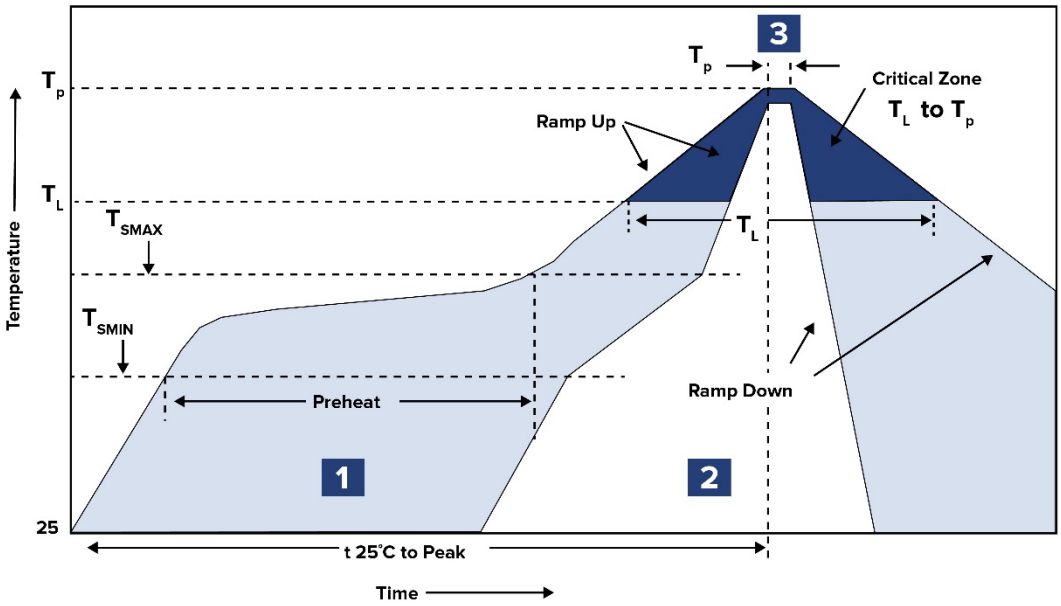



**ASPI-M3015 Series**

Request Samples Check Inventory

**3.0 x 3.0 x 1.5/1.6 mm**
**RoHS/RoHS II Compliant**
**MSL Level = 1**

## Reflow Profile




| Zone | Description | Temperature | Times |
|---|---|---|---|
| 1 | Preheat | $T_{SMIN}$ ~ $T_{SMAX}$<br>150°C ~ 170°C | 60 ~ 120 sec. |
| 2 | Reflow | $T_L$<br>230°C | 30 ~ 40 sec. |
| 3 | Peak heat | $T_P$<br>250°C±5°C | 10 sec. MAX |

ABRACON

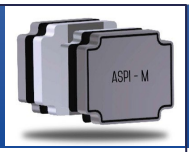
5101 Hidden Creek Ln, Spicewood TX 78669
Phone: 512-371-6159 Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

**REVISION B : 4/16/2026**

ABRACON IS
ISO9001-2015
CERTIFIED

Downloaded from Arrow.com.

# Metal Alloy SMD Power Inductor



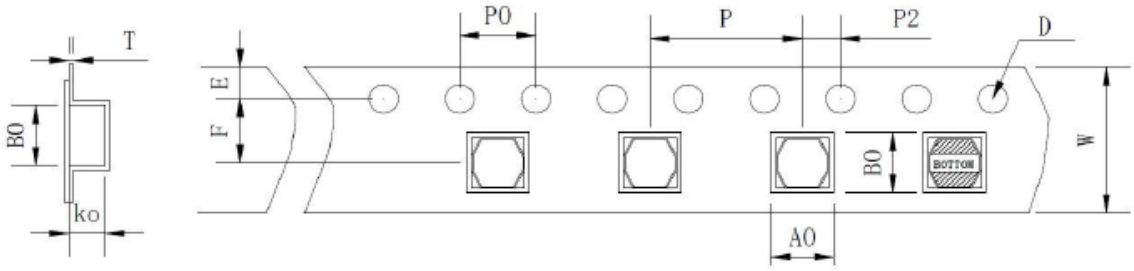

## ASPI-M3015 Series

Request Samples Check Inventory

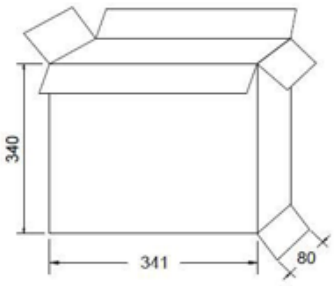
**3.0 x 3.0 x 1.5/1.6 mm**
**RoHS/RoHS II Compliant**
**MSL Level = 1**

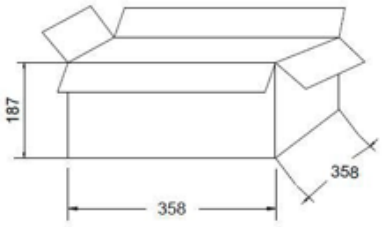
## Packaging

### Tape & Reel: 2,000 pcs/reel

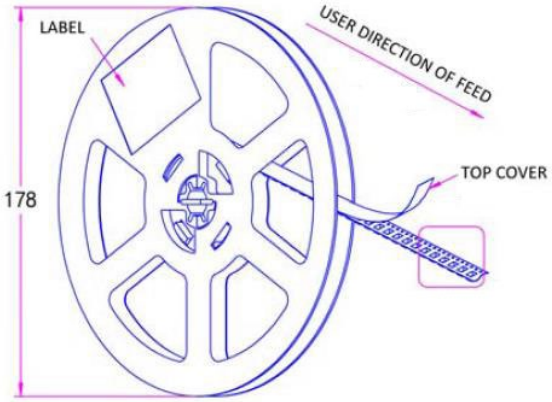



| W | A0 | B0 | K0 | D | F | E | P | P0 | P2 | T |
|---|---|---|---|---|---|---|---|---|---|---|
| 8.0±0.3 | 3.3±0.1 | 3.3±0.1 | 1.9±0.1 | 1.5+0.1/-0 | 3.5±0.05 | 1.75±0.1 | 4.0±0.15 | 4.0±0.1 | 2.0±0.1 | 0.25±0.03 |




| Quantity (pcs) | | |
|---|---|---|
| Reel | Box | Carton |
| 2,000 | 10,000 | 50,000 |
| 1 Reel | 5 Reels / box | 5 boxes/ carton |




Dimensions: mm

ATTENTION: Abracon LLC's products are Commercial-Off-The-Shelf (COTS, which are designed, intended and validated for use in commercial, industrial and automotive applications. The customer is responsible for testing and verifying the performance of an Abracon solution to meet their system-level requirements.

ABRACON

5101 Hidden Creek Ln, Spicewood TX 78669
Phone: 512-371-6159 Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

**REVISION B : 4/16/2026**

ABRACON IS
ISO9001-2015
CERTIFIED

Downloaded from Arrow.com.