

# 10/100/1000 Base-T, Magnetic Coupled SMD LAN Transformer



**ALANC10001**

Request Samples



Check Inventory



4.6 x 3.4 x 3.5 mm  
**RoHS/RoHS II Compliant**  
 MSL Level = 1

## Features

- Uniform transformer windings
- Fully automated production lines
- Meets IEEE 802.3u and 802.3ab standards
- Compatible with 10 BASE-T, 100 BASE-TX and 1000 BASE-T
- Symmetric Orientation
- Operating temperature range up to -40°C to +85°C
- RoHS Compliant
- 1CT:1CT Transformer

## Applications

- Fast and gigabit Ethernet
- Servers, switches and routers
- IP cameras, surveillance, and phone
- Access points
- Industrial computers and robotics
- Networking and communications
- Broadcast video
- Set top box

## Electrical Specifications @25°C

| Part Number     | Insertion Loss (dB Max) |            | Return Loss | (dB Min)   |
|-----------------|-------------------------|------------|-------------|------------|
|                 | 1-100 MHz               | 100-200MHz | 1-40 MHz    | 40 -200MHz |
| ALANC10001-EEB3 | 0.8                     | 1.2        | 25          | 14.5       |

| Part Number           | Inductance (uH Min)               | Leakage Inductance (uH) | Interwinding Capacitance (pF Max) | DC Resistance (Ω Max) |          | Hi Pot (VAC)   | Weight (g)       |
|-----------------------|-----------------------------------|-------------------------|-----------------------------------|-----------------------|----------|----------------|------------------|
|                       |                                   |                         |                                   | Pins 1-2              | Pins 4-5 |                |                  |
| <b>Test Condition</b> | <b>@100kHz, 0.1V, 0mA DC Bias</b> | <b>@ 100KHz, 0.1V</b>   | <b>@ 100KHz, 0.2V</b>             |                       |          | <b>60 sec.</b> | <b>Per Piece</b> |
| ALANC10001-EEB3       | 150                               | 0.5                     | 35                                | 1.2                   | 1.2      | 1500           | 0.228            |

**ALANC10001 series is RoHS/ RoHS II Compliant and Pb free.**

**Moisture Sensitivity Level (MSL) – Level 1**

**Applicable Standards: IEEE 802.3u and 802.3ab**

**Operating Temperature: -40°C ~ +85°C**

**Storage Condition: -40°C ~ +85°C (on board),**



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](http://www.abracon.com)

**REVISION A : 5/18/2023**

ABRACON IS  
 ISO9001-2015  
 CERTIFIED

# 10/100/1000 Base-T, Magnetic Coupled SMD LAN Transformer



**ALANC10001**

Request Samples

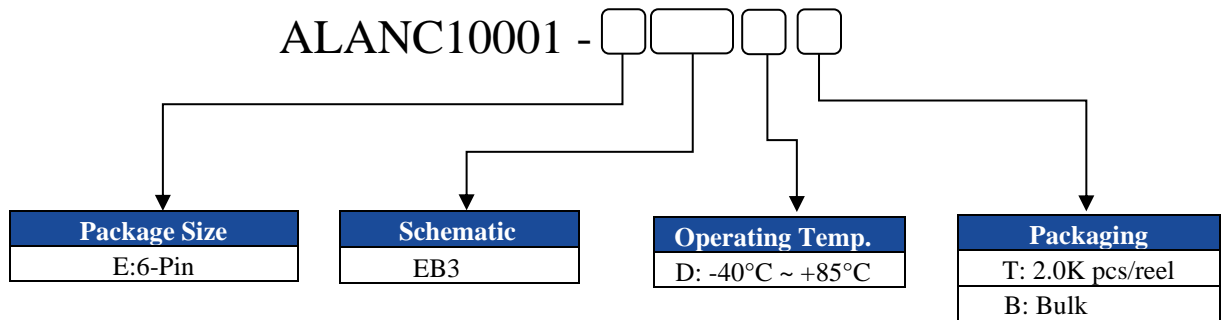


Check Inventory



4.6 x 3.4 x 3.5 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

## Part Identification



## Polarity Marking



Marking Method = Ink Marking



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](http://www.abracon.com)

REVISION A : 5/18/2023

ABRACON IS  
ISO9001-2015  
CERTIFIED

# 10/100/1000 Base-T, Magnetic Coupled SMD LAN Transformer



**ALANC10001**

Request Samples



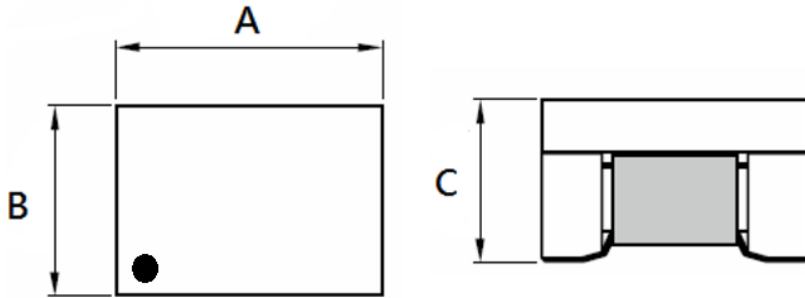
Check Inventory



4.6 x 3.4 x 3.5 mm  
**RoHS/RoHS II Compliant**  
 MSL Level = 1

## Mechanical Specifications

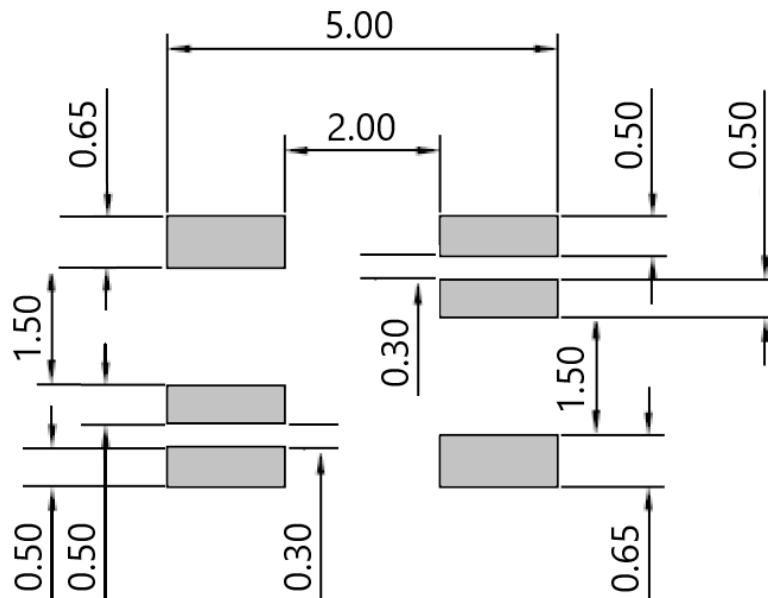
**E: 6-pin**



| A          | B          | C          |
|------------|------------|------------|
| 4.60 ±0.20 | 3.40 ±0.20 | 3.50 ±0.20 |

| Coplanarity |
|-------------|
| 0.10 MAX    |

## Recommended Land Pattern



Dimensions: mm

# 10/100/1000 Base-T, Magnetic Coupled SMD LAN Transformer



ALANC10001

Request Samples



Check Inventory

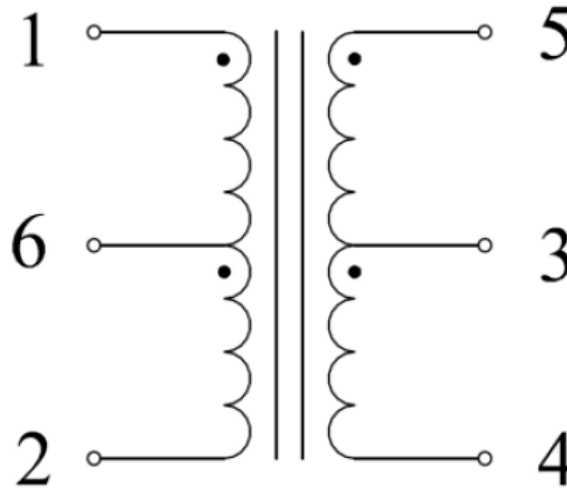


4.6 x 3.4 x 3.5 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

## Schematic

### 6 - Pin

EB3



# 10/100/1000 Base-T, Magnetic Coupled SMD LAN Transformer



**ALANC10001**

Request Samples

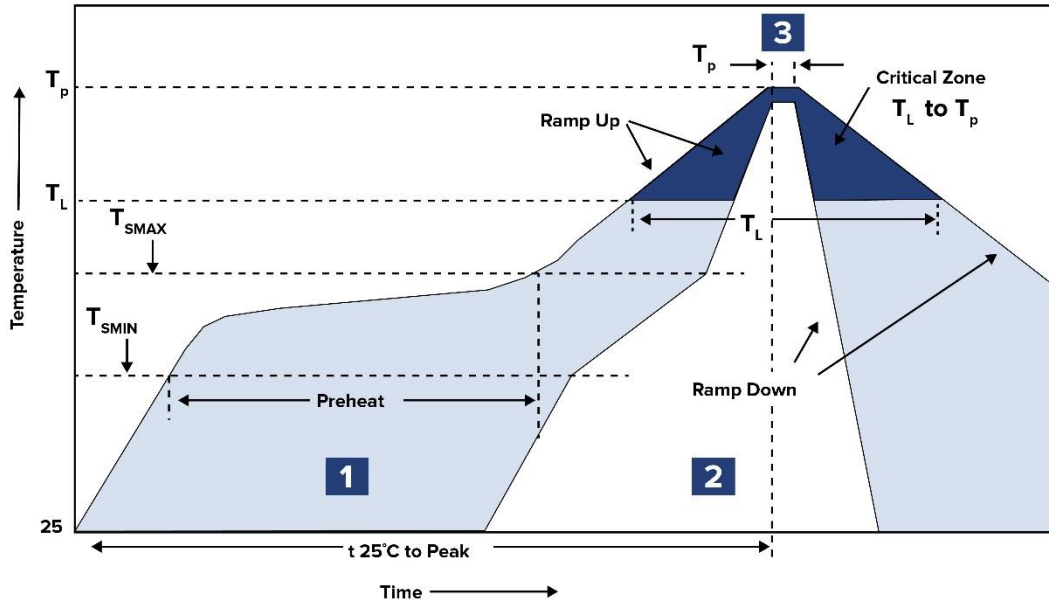


Check Inventory



4.6 x 3.4 x 3.5 mm  
**RoHS/RoHS II Compliant**  
 MSL Level = 1

## Reflow Profile



| Zone | Description | Temperature                               | Times            |
|------|-------------|---|------------------|
| 1    | Preheat     | $T_{SMIN} \sim T_{SMAX}$<br>150°C ~ 200°C | 60 ~ 120 sec.    |
| 2    | Reflow      | $T_L$<br>217°C                            | 60 ~ 150 sec.    |
| 3    | Peak heat   | $T_P$<br>260°C                            | 20 ~ 40 sec. MAX |

# 10/100/1000 Base-T, Magnetic Coupled SMD LAN Transformer



**ALANC10001**

Request Samples



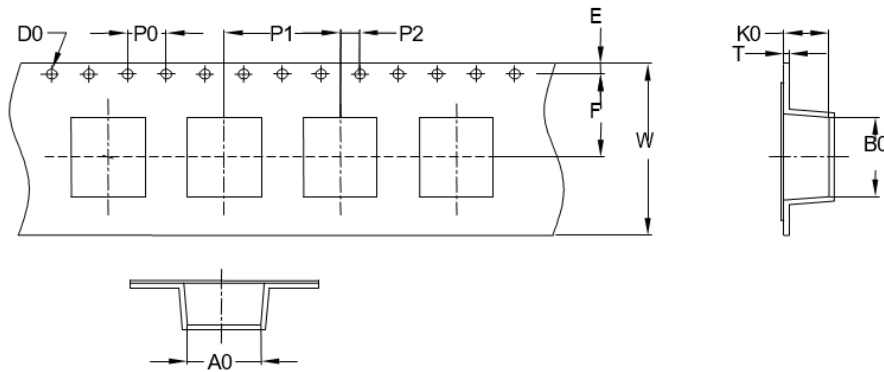
Check Inventory



**4.6 x 3.4 x 3.5 mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**

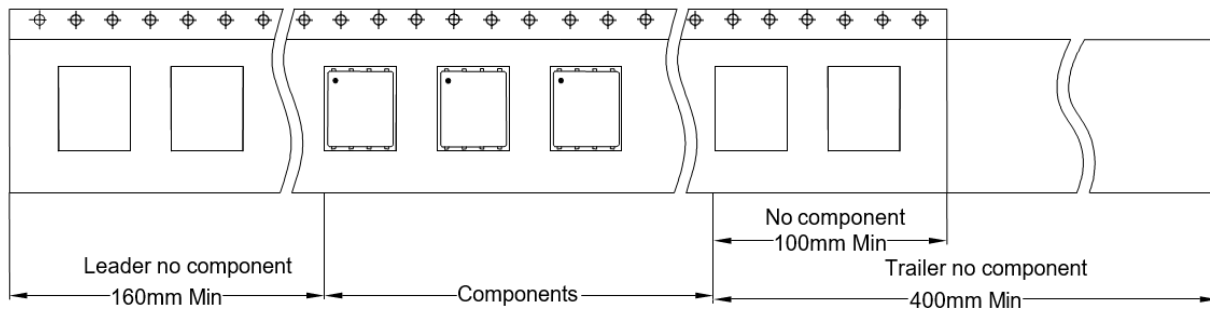
## Packaging

**Tape and Reel:** 2,000 pcs/reel  
**Pieces Per Carton:** 20,000 pcs  
**Weight Per Carton:** 6 kg (approx.)  
**Dimensions of Carton:** 345 x 345 x 220 mm



| A0   | B0   | W     | E    | F    | P0   | P1   | P2   | D0   | T    | K0   |
|------|------|-------|------|------|------|------|------|------|------|------|
| 3.70 | 4.90 | 12.00 | 1.75 | 5.50 | 4.00 | 8.00 | 2.00 | 1.50 | 0.40 | 3.70 |

**Dimensions: mm**



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](http://www.abracon.com)

**REVISION A : 5/18/2023**

ABRACON IS  
 ISO9001-2015  
 CERTIFIED

# 10/100/1000 Base-T, Magnetic Coupled SMD LAN Transformer



**ALANC10001**

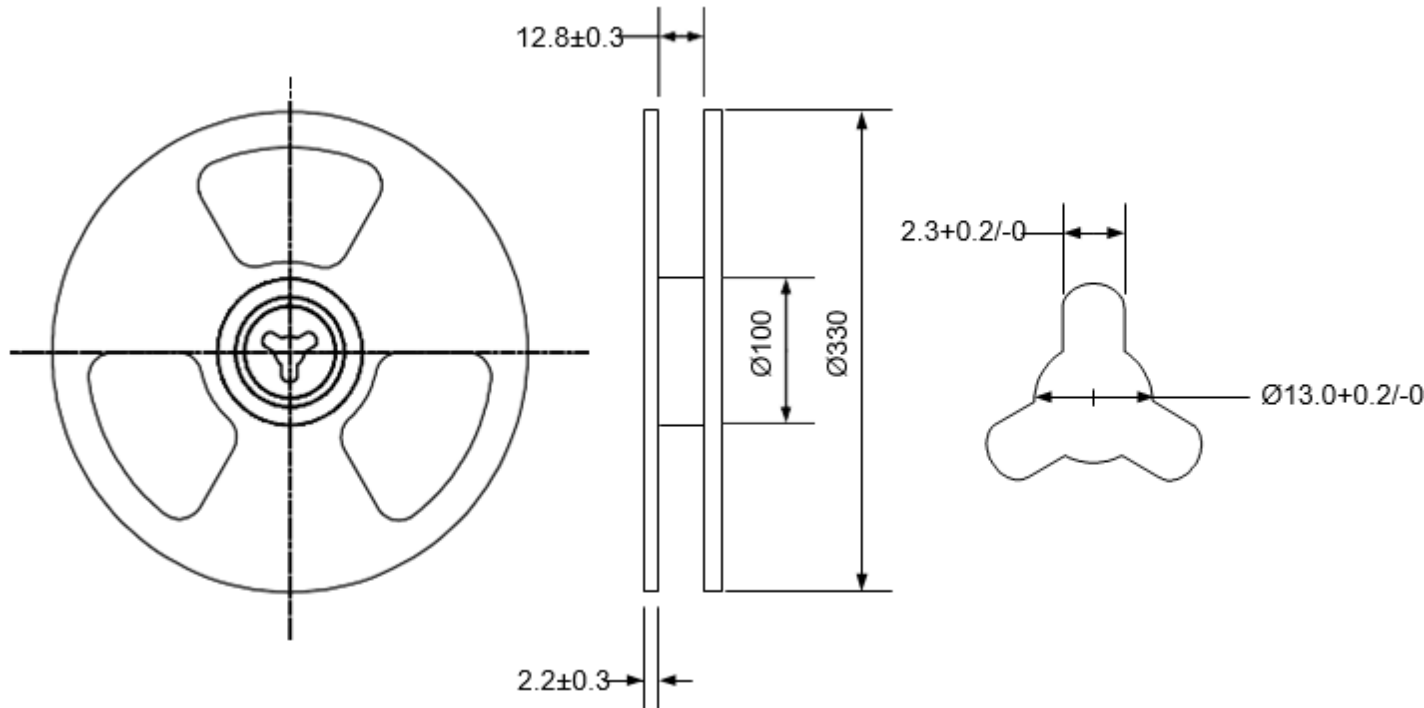
Request Samples



Check Inventory



**4.6 x 3.4 x 3.5 mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**



**Dimensions: mm**

**ATTENTION:** Abracon LLC's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependent Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon LLC is required. Please contact Abracon LLC for more information.



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](http://www.abracon.com)

**REVISION A : 5/18/2023**

ABRACON IS  
ISO9001-2015  
CERTIFIED