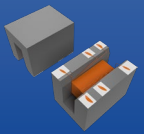


# 10G Base-T, SMD PoE LAN Isolation Transformer



**ALANC010G**

Request Samples



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4.6 x 3.4 x 3.5 mm

RoHS/RoHS II Compliant

MSL Level = 1

## Features

- Uniform transformer windings
- Power over Ethernet (PoE, PoE+) capable.
- Meets IEEE 802.3ab and 802.3an standards
- Compatible with 10G BASE-T
- Symmetric Orientation
- Operating temperature range of -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*    | Inductance<br>(uH Min) | Interwinding<br>Capacitance<br>(pF Max) | DC<br>Resistance<br>(Ω Max) |             | Rated<br>Current<br>(mA) | Insertion<br>Loss<br>(dB Max) | Insertion<br>Loss<br>(dB Max) | Hi Pot<br>(VAC) | Turn<br>Ratio |
|-----------------|------------------------|-----------------------------------------|-----------------------------|-------------|--------------------------|-------------------------------|-------------------------------|-----------------|---------------|
| Test Condition  | @100kHz,<br>0.1V       | @ 100KHz,<br>0.2V                       | Pins<br>1-2                 | Pins<br>4-5 | Pins 1-2-6<br>Pins 5-4-3 | 1 ~200<br>MHz                 | 400 ~500<br>MHz               | 1 sec.          | 1-2 : 4-5     |
| ALANC010G1-EADT | 120                    | 25                                      | 1.5                         | 1.5         | 300                      | -1.5                          | -2.0                          | 1500            | 1CT:1CT       |
| ALANC010G2-EADT | 120                    | 25                                      | 1.2                         | 1.2         | 600                      | -1.5                          | -2.0                          | 1500            | 1CT:1CT       |

\*The “T” at the end of the part numbers refers to “Tape & Reel” packaging. For other options, please refer to the Part Identification section.

ALANC010G series is **RoHS/ RoHS II Compliant and Pb free.**

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

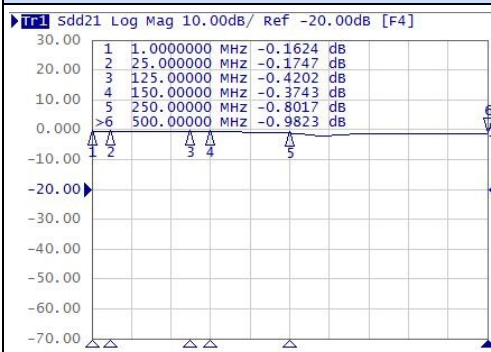
**Applicable Standards: IEEE 802.3ab and 802.3an.**

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

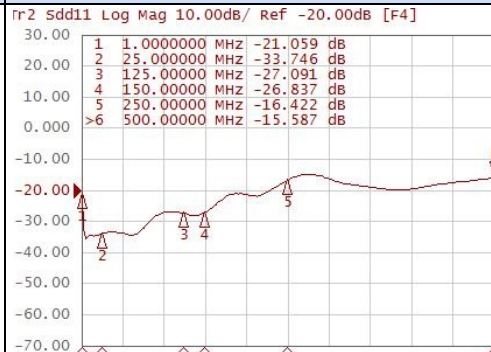
**Storage Condition: -40°C ~ +85°C (on board), 40%-60% RH.**

## ALANC002G1-EADT

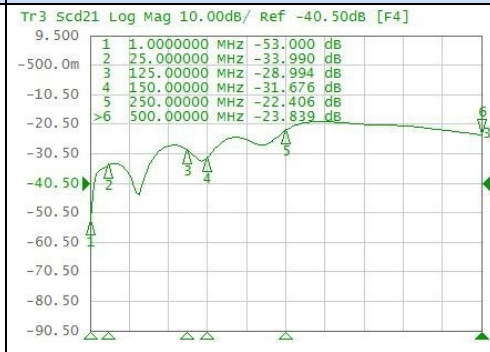
### Insertion Loss (dB)



### Return Loss (dB)



### DCMR (dB)

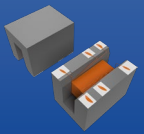


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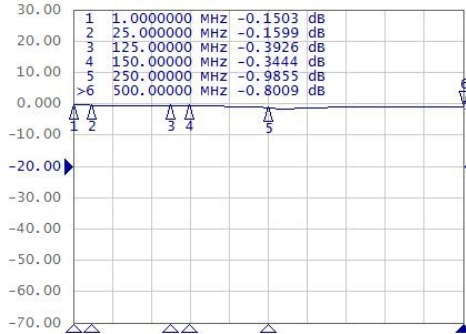


**4.6 x 3.4 x 3.5 mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## ALANC002G1-EADT

### Insertion Loss (dB)

Tr1 Sdd21 Log Mag 10.00dB/ Ref -20.00dB [F4]



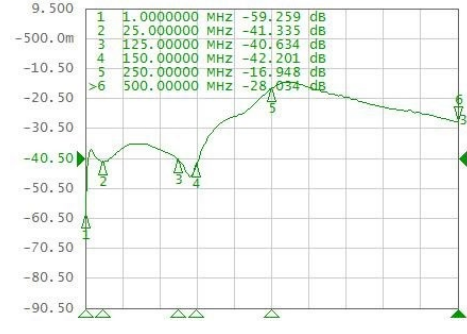
### Return Loss (dB)

Tr2 Sdd11 Log Mag 10.00dB/ Ref -20.00dB [F4]



### DCMR (dB)

Tr3 Sdd21 Log Mag 10.00dB/ Ref -40.50dB [F4]



## Part Identification

ALANC010G

| Power Over Ethernet | Package  | Schematic   | Operating Temp.  | Packaging      |
|---------------------|----------|-------------|------------------|----------------|
| PoE: 1              | E: 6-pin | A: Standard | D: -40°C ~ +85°C | T: Tape & reel |
| PoE+: 2             |          |             |                  | B: Bulk        |

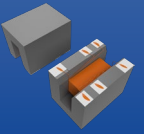


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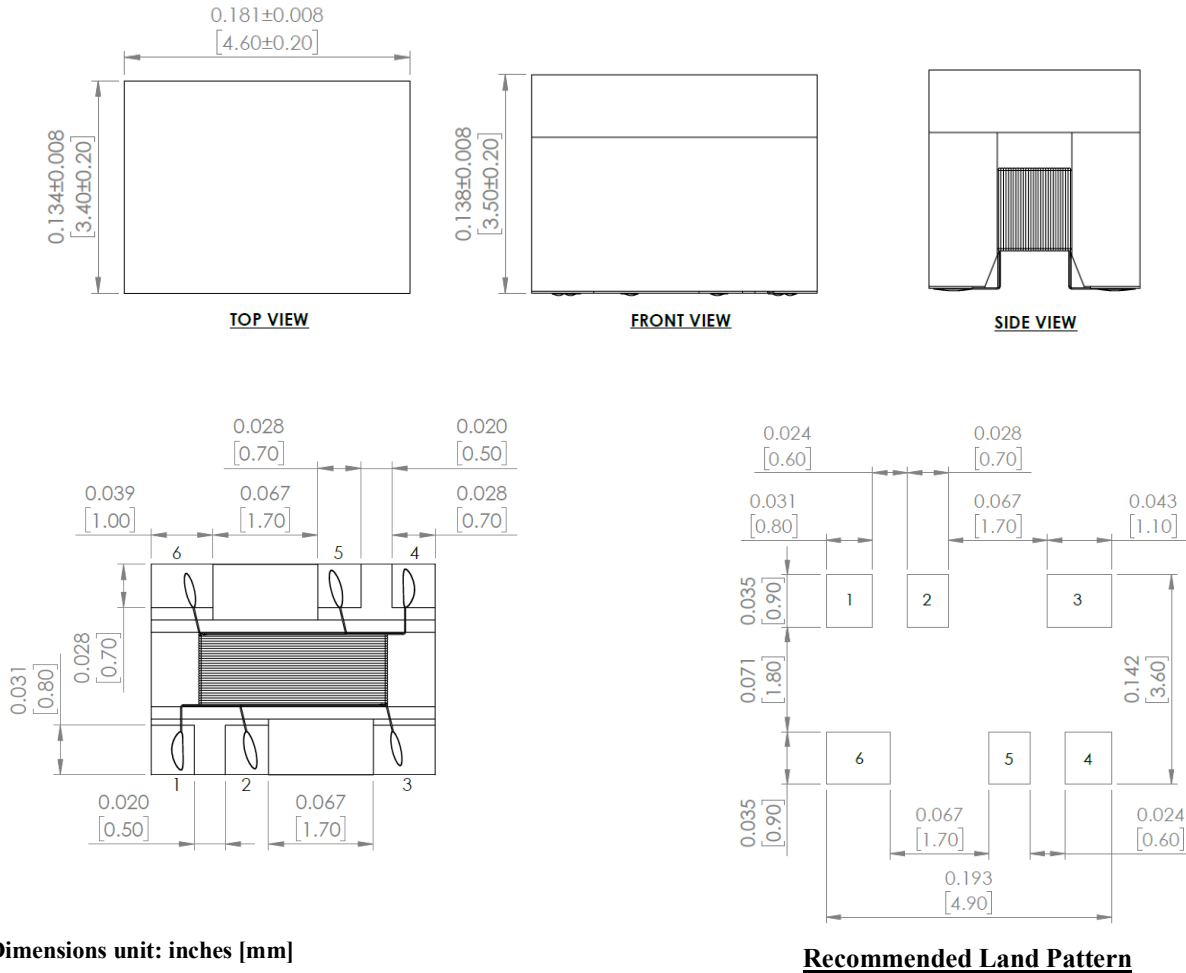
Check Inventory



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

## Mechanical Specifications

### Package E: 6-pin

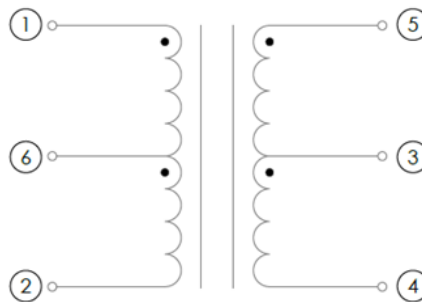


Dimensions unit: inches [mm]

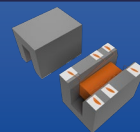
### Recommended Land Pattern

## Schematic

### A: Standard



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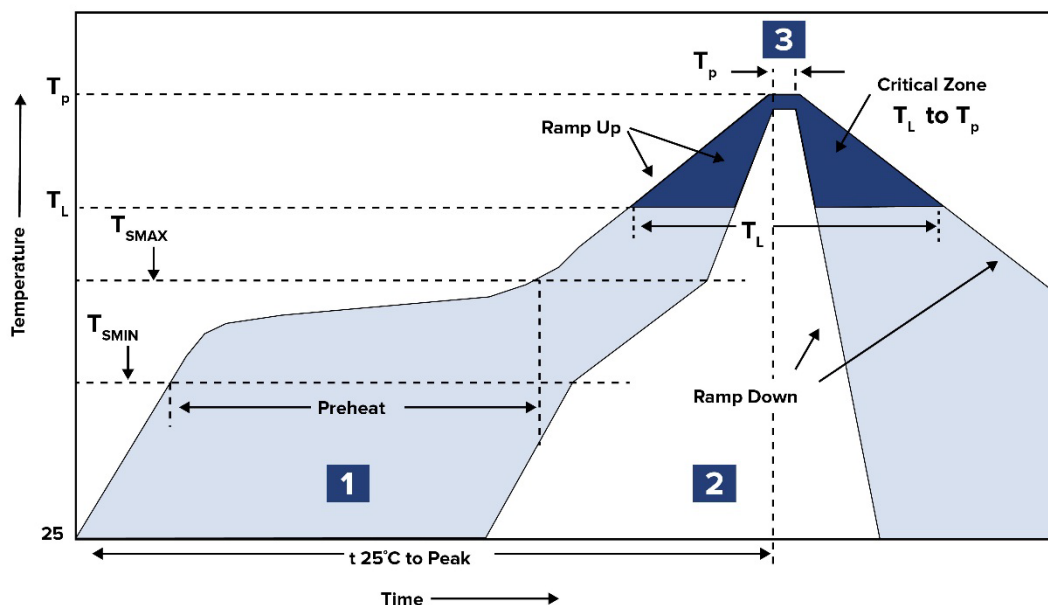


Check Inventory



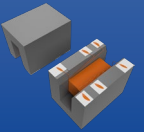
4.6 x 3.4 x 3.5 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

## Reflow Profile



| Zone | Description | Temperature                               | Times         |
|------|-------------|-------------------------------------------|---------------|
| 1    | Preheat     | $T_{SMIN} \sim T_{SMAX}$<br>150°C ~ 200°C | 60 ~ 180 sec. |
| 2    | Reflow      | $T_L$<br>217°C                            | 60 ~ 150 sec. |
| 3    | Peak heat   | $T_P$<br>260°C                            | 10 sec. MAX   |

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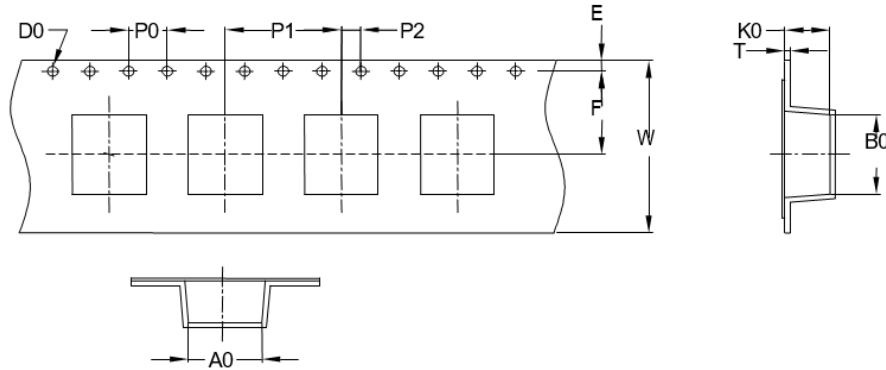
Check Inventory



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

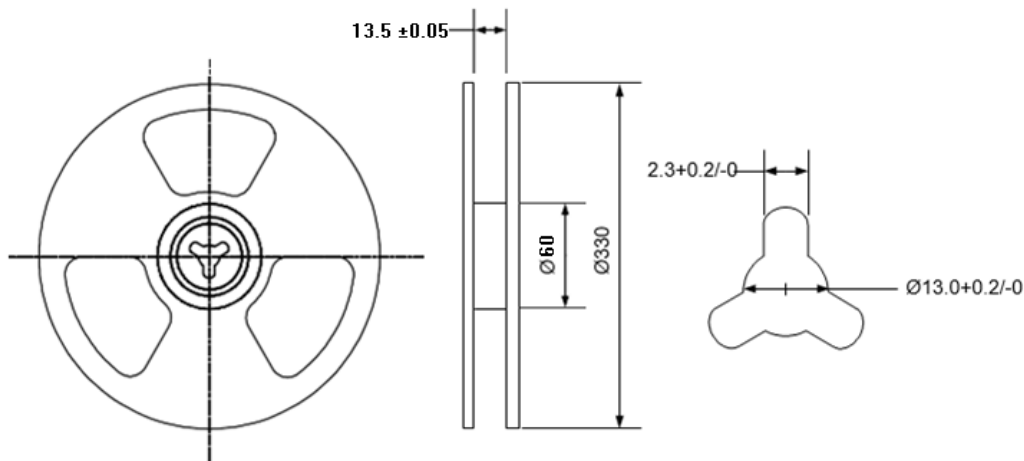
## Packaging

**Tape and Reel: 2,000 pcs/reel**



| A0   | B0   | W     | E    | F    | P0   | P1   | P2   | D0         | T          | K0  |
|------|------|-------|------|------|------|------|------|------------|------------|-----|
| 3.60 | 4.90 | 12.00 | 1.75 | 5.50 | 4.00 | 8.00 | 2.00 | 1.50 ±0.05 | 0.40 ±0.05 | 3.0 |

**Tolerance:** ±0.1 (unless otherwise noted)



**Dimensions unit: 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.



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