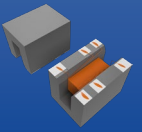


# 2.5G Base-T, SMD PoE LAN Isolation Transformer



ALANC002G

Request Samples



Check Inventory



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 802.3bz standards
- Compatible with 2.5G 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<br>Max) | Return<br>Loss<br>(dB<br>Min) | Hi Pot<br>(VAC) | Turn<br>Ratio |
|------------------|------------------------|-----------------------------------------|-----------------------------|-------------|--------------------------|----------------------------------|-------------------------------|-----------------|---------------|
| Test Condition   | @100kHz,<br>0.1V       | @ 100KHz,<br>0.1V                       | Pins<br>1-2                 | Pins<br>4-5 | Pins 1-2-6<br>Pins 5-4-3 | 1 ~150<br>MHz                    | 1 ~150<br>MHz                 | 1 sec.          | 1-2 : 4-5     |
| ALANC002G1-EADT  | 150                    | 30                                      | 1.5                         | 1.5         | 300                      | -1.5                             | -10                           | 1500            | 1CT:1CT       |
| ALANC002G2- EADT | 150                    | 30                                      | 1.2                         | 1.2         | 600                      | -1.5                             | -10                           | 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.

ALANC002G series is RoHS/ RoHS II Compliant and Pb free.

Moisture Sensitivity Level (MSL) – Level 1.

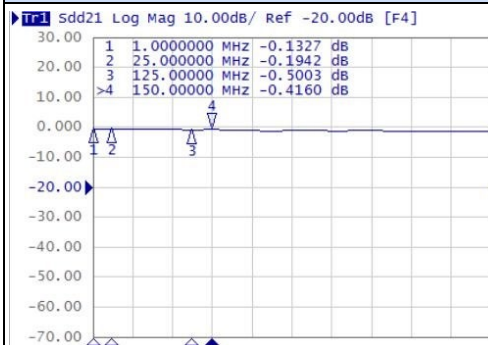
Applicable Standards: IEEE 802.3ab and 802.3bz.

Operating Temperature: -40°C ~ +85°C.

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

## ALANC002G1-EADT

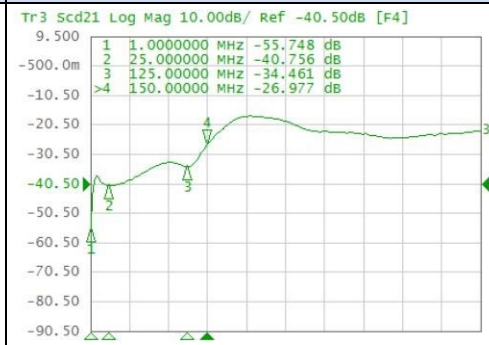
### Insertion Loss (dB)



### Return Loss (dB)



### DCMR (dB)

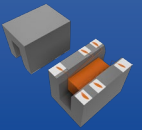


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# 2.5G Base-T, SMD PoE LAN Isolation Transformer



**ALANC002G**

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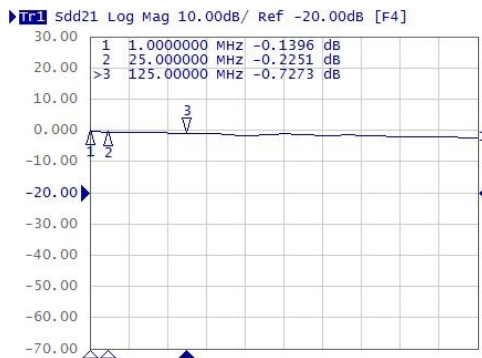
Check Inventory



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

## ALANC002G2-EADT

### Insertion Loss (dB)



### Return Loss (dB)

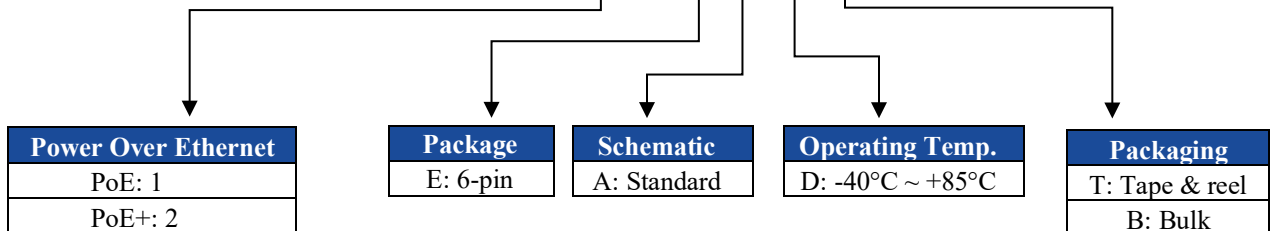


### DCMR (dB)



## Part Identification

ALANC002G -

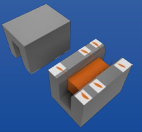


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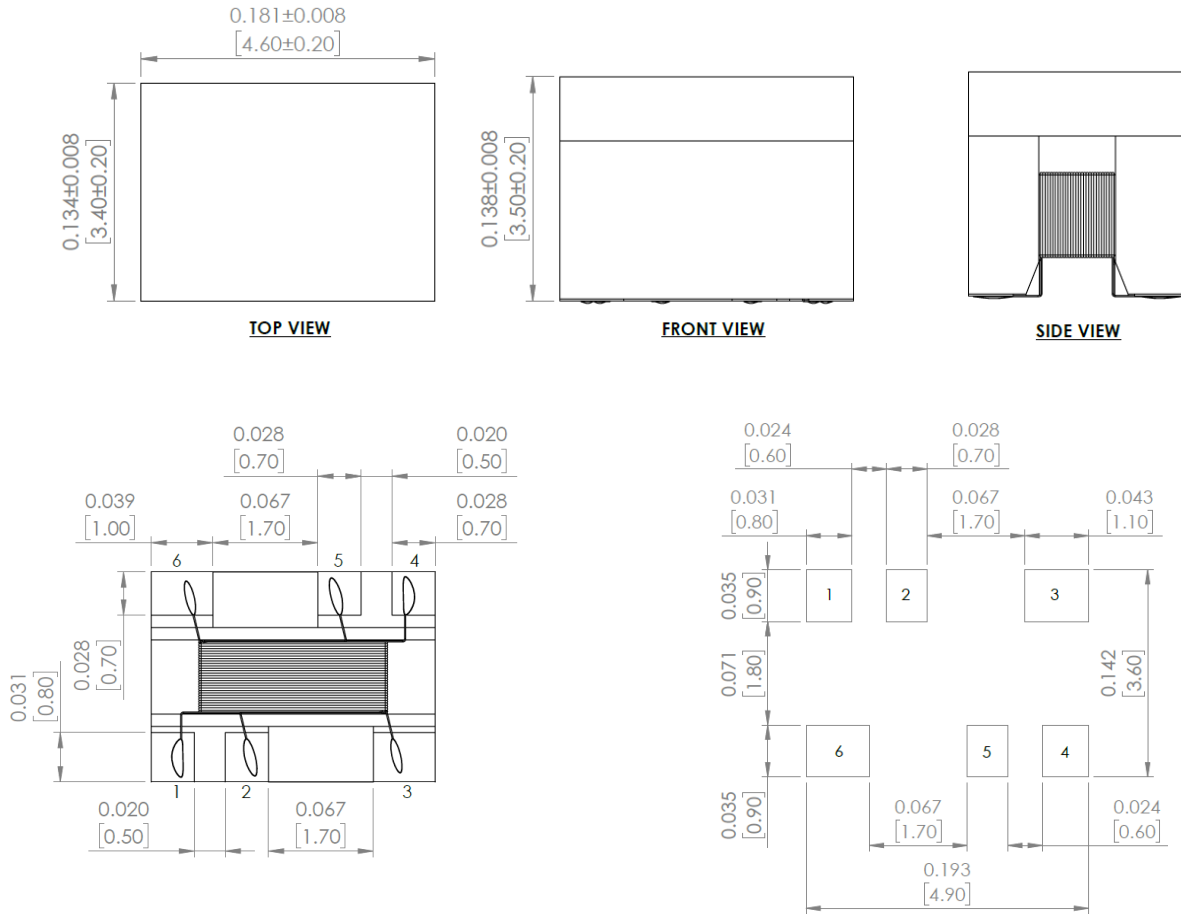
Check Inventory



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

## Mechanical Specifications

### Package E: 6-pin

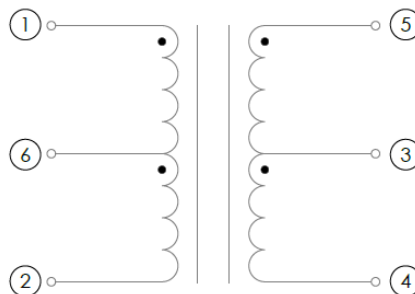


Dimensions unit: inches [mm]

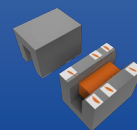
### Recommended Land Pattern

## Schematic

### A: Standard



## 2.5G Base-T, SMD PoE LAN Isolation Transformer



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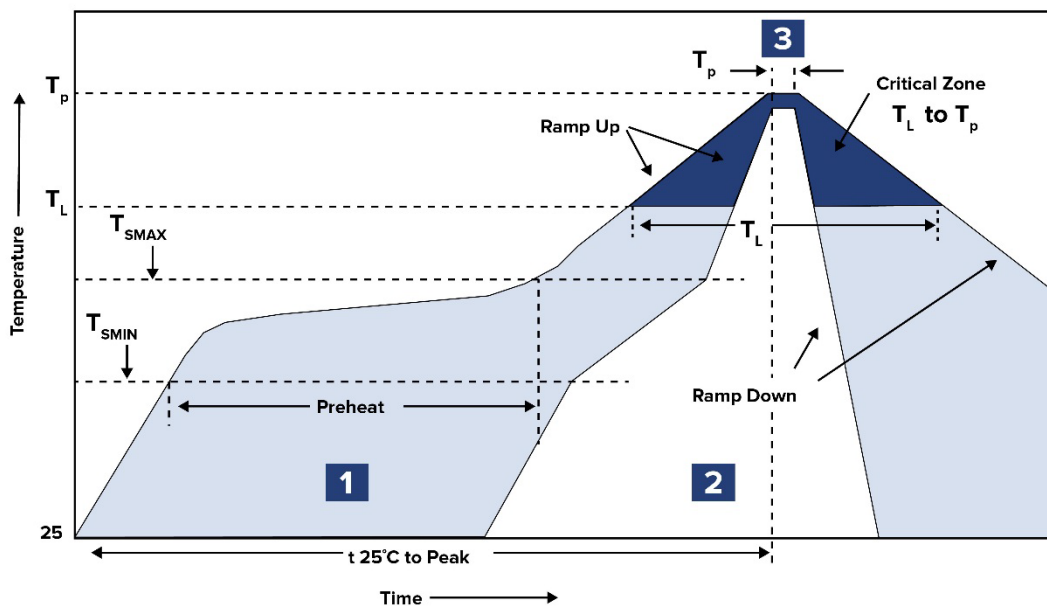


Check Inventory



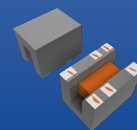
4.6 x 3.4 x 3.5 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

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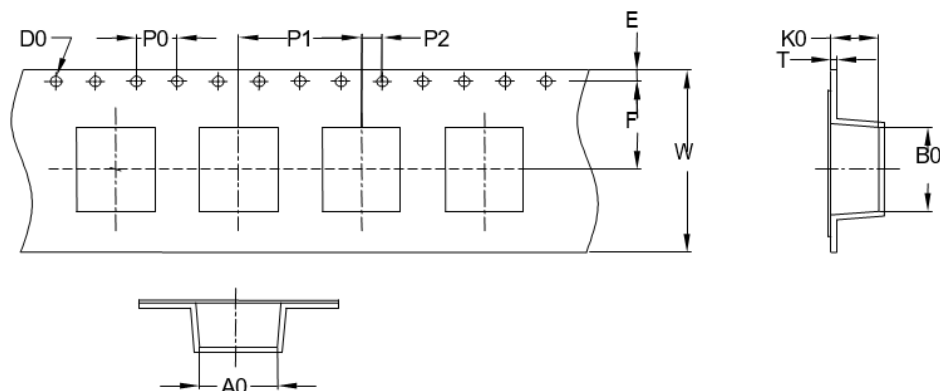
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4.6 x 3.4 x 3.5 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

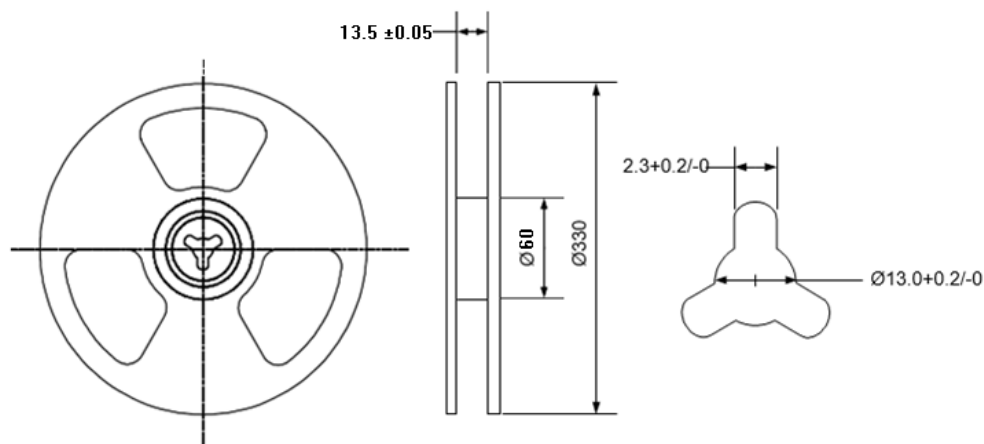
## Packaging

**Tape and Reel: 2000 pcs/reel**



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