

# 10/100/1000 Base-T Single Port, Traditional SMD LAN Transformer



**ALANS10001 Series**

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18.1 x 12.2 x 6.8 mm  
 13.7 x 15.7 x 6.7 mm  
**RoHS/RoHS II Compliant**  
 MSL Level = N/A

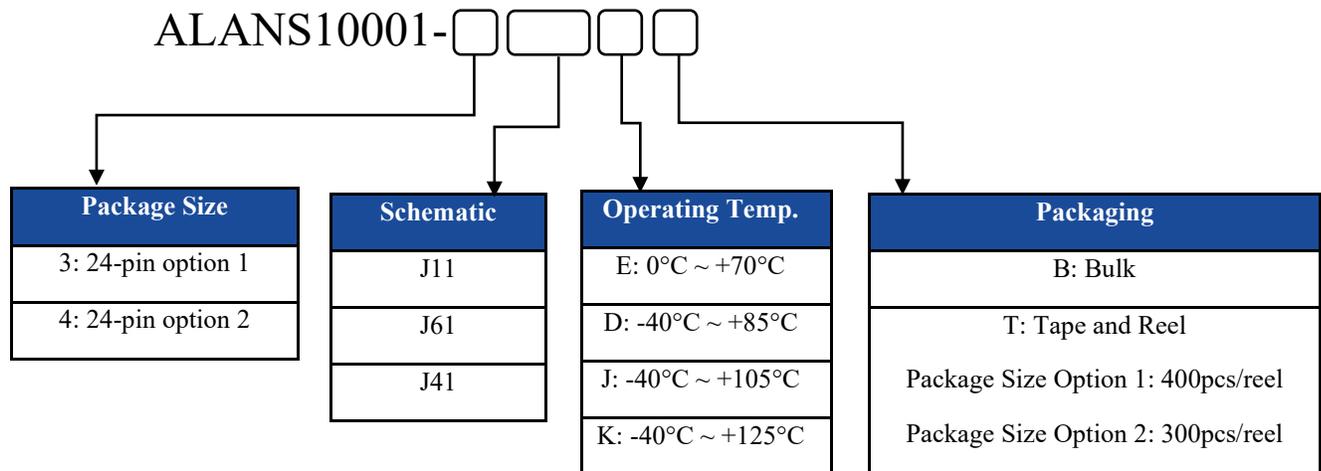
## Features

- Meets IEEE 802.3ab standards
- Compatible with 10 BASE-T, 100 BASE-TX and 1000 BASE-T
- Operating temperature range up to -40°C to +125°C
- RoHS Compliant
- High performance magnetics for EMI suppression and common mode noise rejection
- Multiple schematic and pinout options 0.99mm and 1.27mm pin pitch for the 24-pin package size
- 1CT:1CT TX and RX Transformers

## 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

## Part Identification



12117 Bee Caves Rd, Bldg-3, Suite 200  
 Bee Cave, TX 78738  
 Phone: 512-371-6159 Fax: 512-351-8858  
 For terms and conditions of sales, please visit:  
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## Electrical Specifications

Part Number	Insertion Loss	Return Loss				Crosstalk	CMRR	DCMR
	(dB Max)	(dB Min)				(dB Min)	(dB Min)	(dB Min)
	0.1-100 MHz	1-40 MHz	60 MHz	80 MHz	100 MHz	1-100 MHz	1-100 MHz	1-100 MHz
ALANS10001-3J11	1	-16	-12	-10	-8	-30	-30	-30
ALANS10001-3J61	-1.2	-16	-12	-10	-8	-30	-30	-30
ALANS10001-3J41	1	-18	-16	-14	-10	-30	-30	-30
ALANS10001-4J11	-1.2	-16	-14	-12	-10	-30	-30	-30
ALANS10001-4J61	1	-16	-14	-12	-10	-30	-30	-30
ALANS10001-4J41	1	-16	-14	-12	-10	-30	-30	-30

Part Number	Inductance	Leakage Inductance	Interwinding Capacitance	DC Resistance		Hi Pot
	( $\mu$ H Min)	( $\mu$ H)	(pF Max)	( $\Omega$ Max)		(Vrms)
	@100kHz, 0.1V,	@100kHz, 0.1V,	@100kHz, 0.1V,	Primary	Secondary	1 mA/60 sec.
	8mA DC Bias	Td to Mx	Td to Mx			
ALANS10001-3J11	350	0.35	35	0.9	1.2	1500
ALANS10001-3J61	350	0.35	35	1.2	0.9	1500
ALANS10001-3J41	350	0.35	35	0.9	0.9	1500
ALANS10001-4J11	350	0.35	35	0.9	1.2	1500
ALANS10001-4J61	350	0.35	35	1.2	0.9	1500
ALANS10001-4J41	350	0.35	35	0.9	0.9	1500

**Test Condition: 25°C**

**ALANS10001 series is RoHS/ RoHS II Compliant and Pb free.**

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

**Applicable Standards: IEEE 802.3ab**



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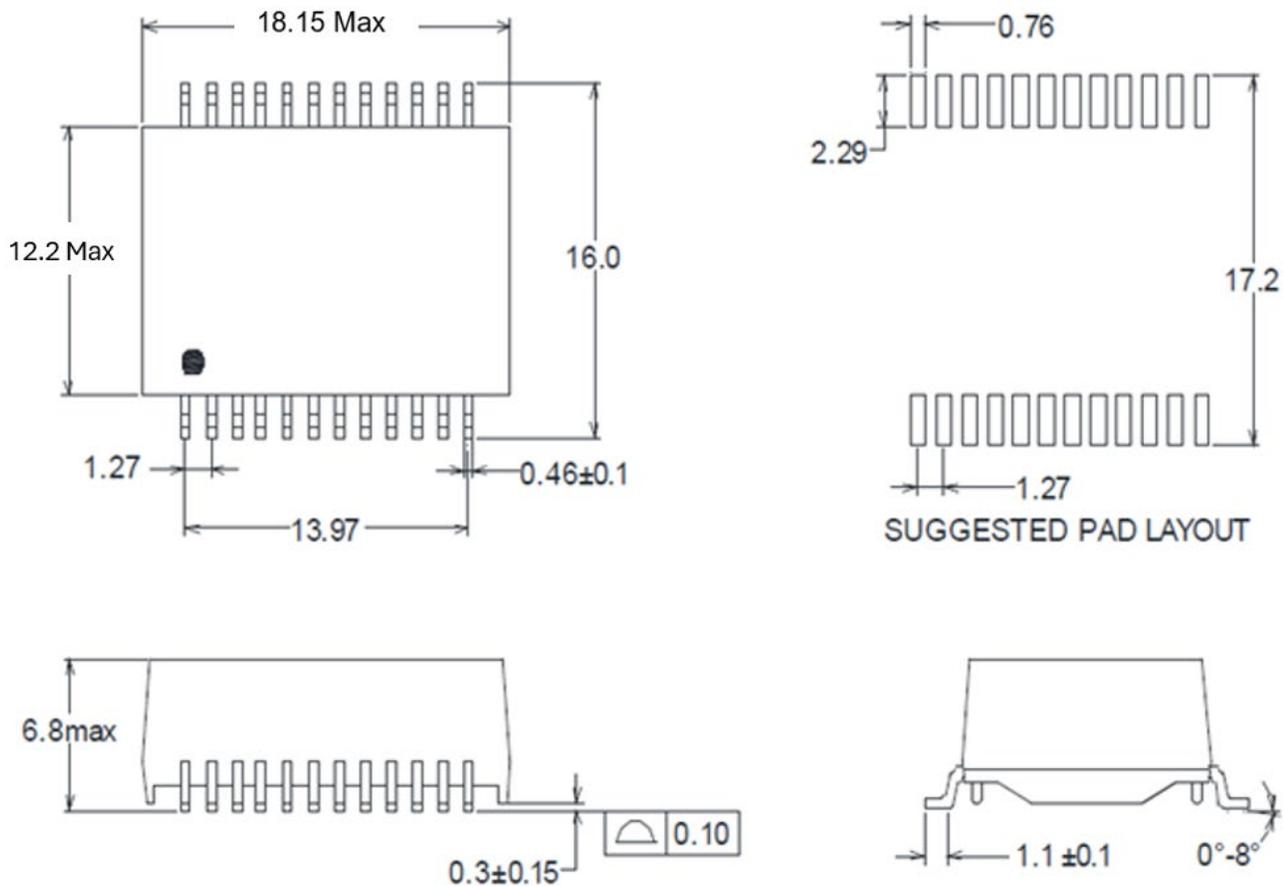
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## Mechanical Specifications

### 3: 24-pin option 1



Unless otherwise specified, all tolerances are  $\pm 0.25$ mm

Dimensions: mm



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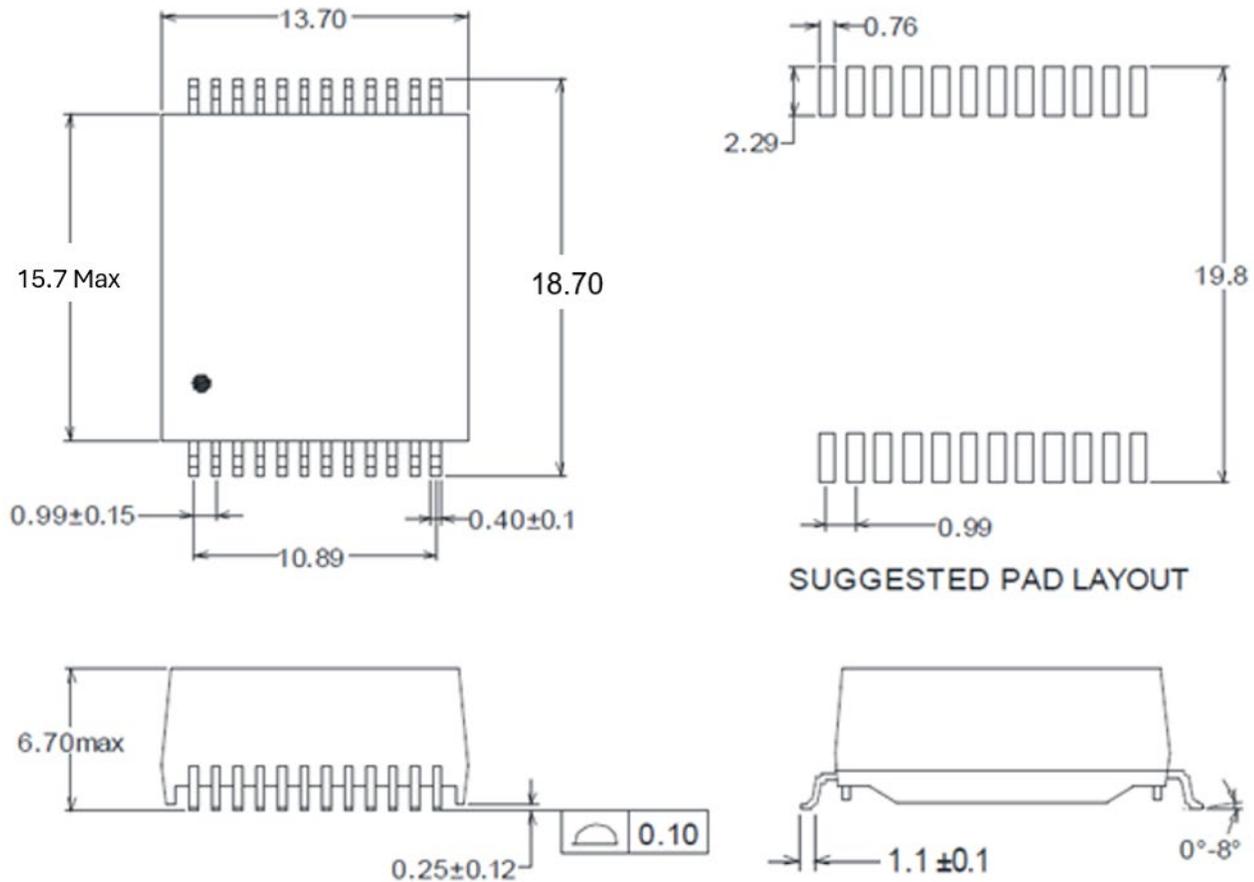


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## 4: 24-pin option 2



Unless otherwise specified, all tolerances are  $\pm 0.25$ mm

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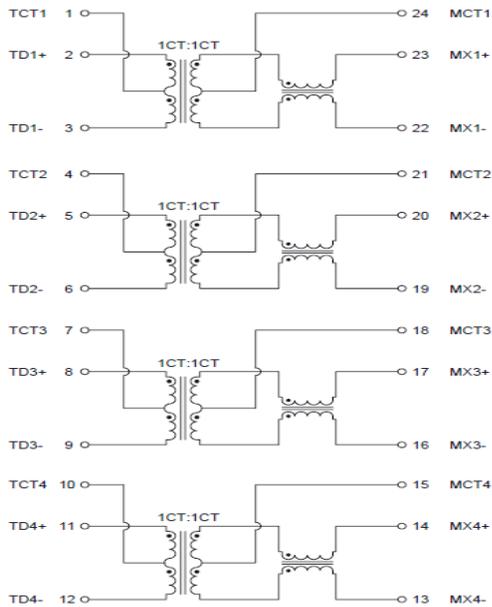


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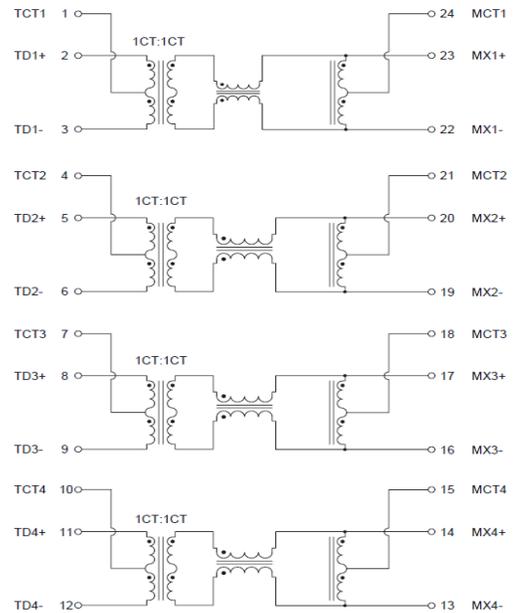
## Schematics

### 24-Pin

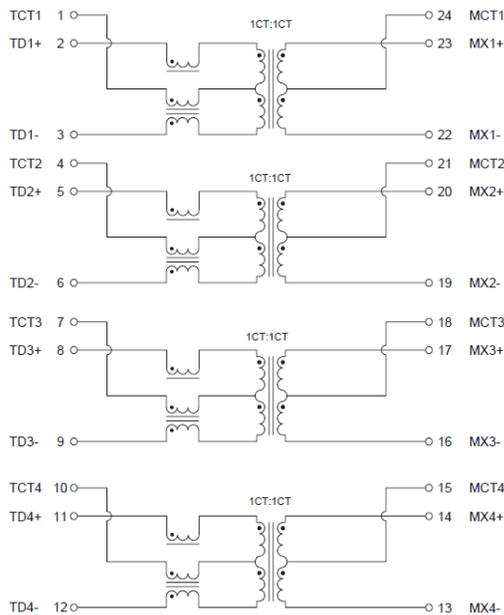
#### J11



#### J41



#### J61



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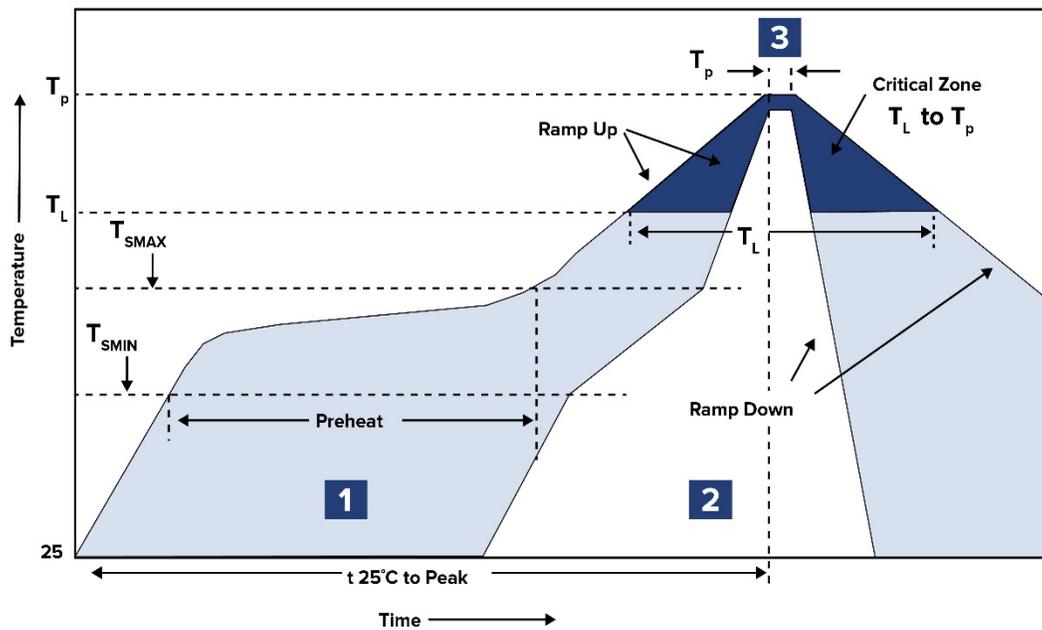


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## Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 180°C	60 ~ 120 sec.
2	Reflow	$T_L$ 217°C	30 ~ 40 sec.
3	Peak heat	$T_P$ 245°C±5°C	10 sec. MAX



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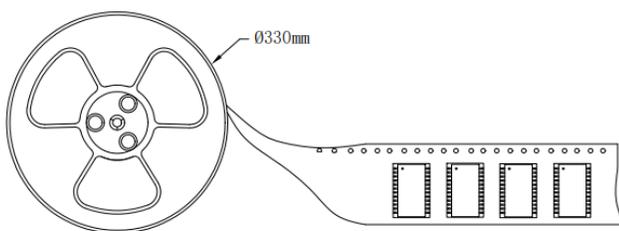
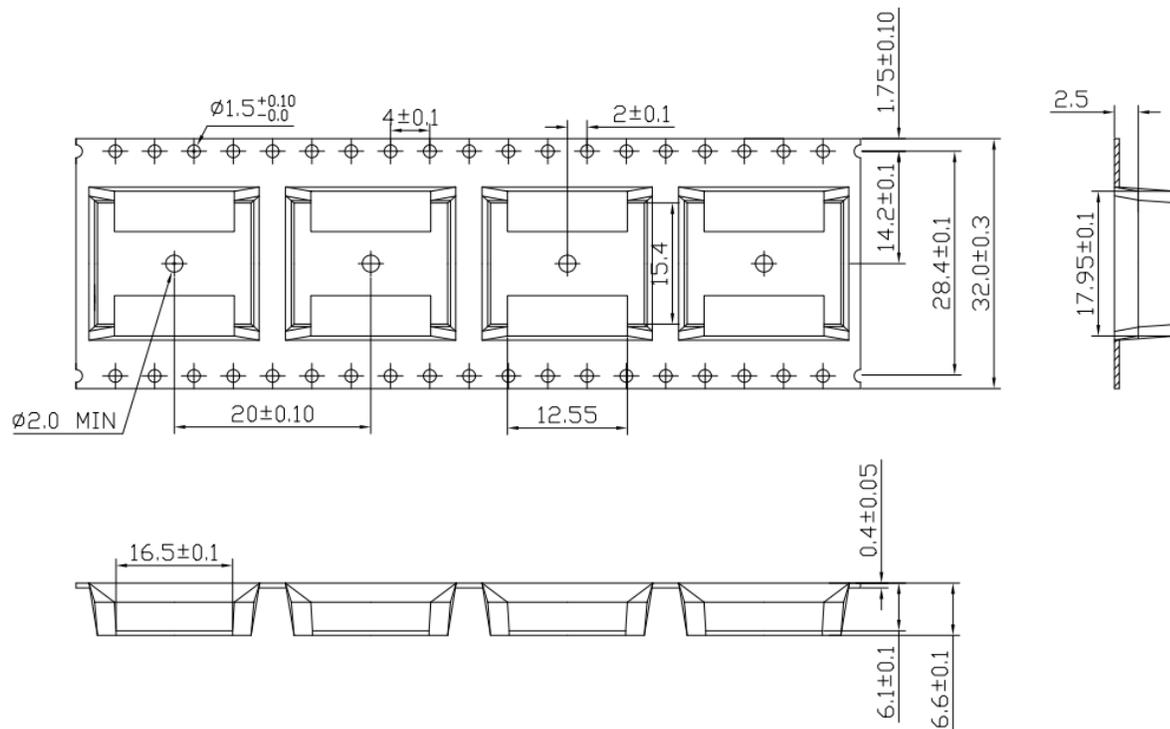


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## Packaging

### Package size option 1:

Tape and Reel: 400 pcs/reel  
Pieces per Carton: 4000  
T&R per Carton: 10



Dimensions: mm



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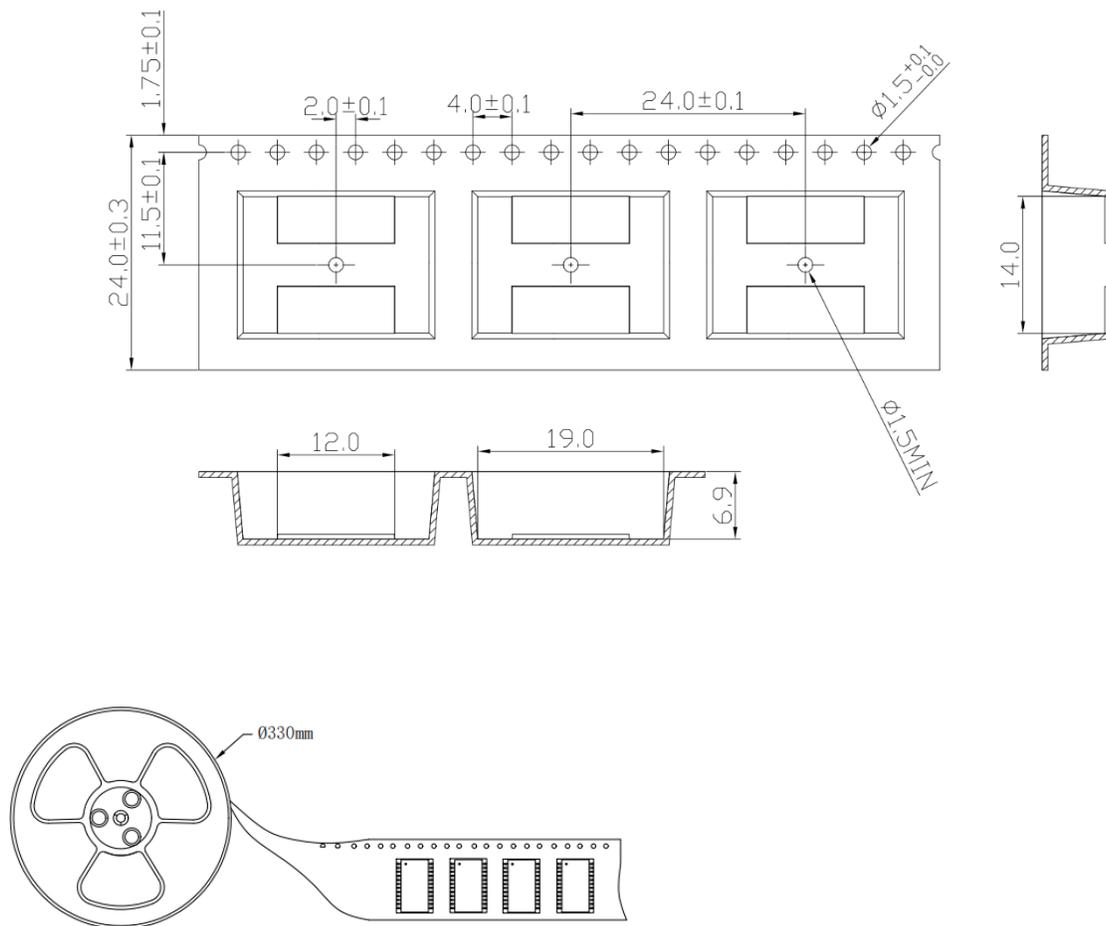
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## Package size option 2:

Tape and Reel: 300 pcs/reel

Pieces per Carton: 1800pcs

T&R per Carton: 6



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.



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