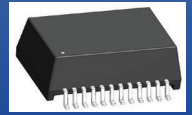


# 10/100/1000 BASE-T Single Port SMD LAN Transformer Module



ALANS10001



18.1 x 12.2 x 6.8 mm  
13.7 x 15.3 x 6.7 mm  
RoHS/RoHS II Compliant  
MSL = 1

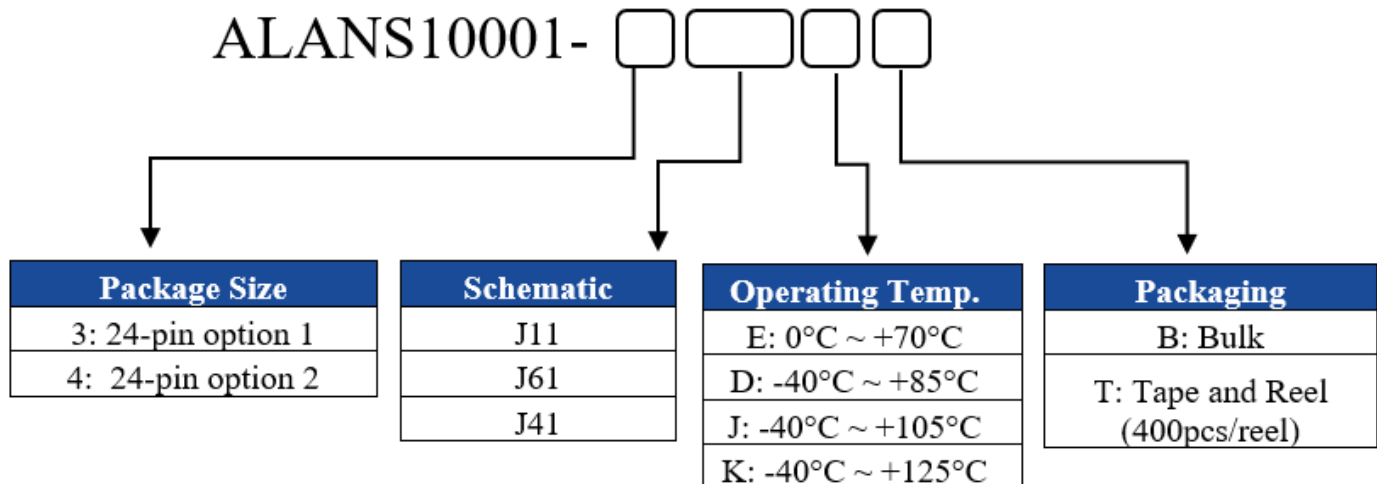
## Features

- 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

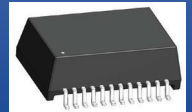
## Applications

- 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



# 10/100/1000 BASE-T Single Port SMD LAN Transformer Module



ALANS10001



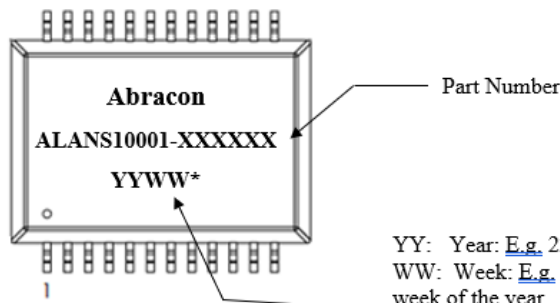
18.1 x 12.2 x 6.8 mm  
13.7 x 15.3 x 6.7 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Electrical Specifications at 25°C

Part Number	Insertion Loss (dB Max)	Return Loss (dB Min)				Crosstalk (dB Min)			CMRR (dB Min)			DCMR (dB Min)		
		0.1-100 MHz	1-40 MHz	60 MHz	80 MHz	100 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz
ALANS10001-3J11	1.0	18	15	12	10	42	38	34	40	36	32	46	38	31
ALANS10001-3J61	1.0	18	15	12	10	42	38	34	40	36	32	46	38	31
ALANS10001-3J41	1.0	18	15	12	10	42	38	34	40	36	32	46	38	31
ALANS10001-4J11	1.0	18	15	12	10	42	38	34	40	36	32	46	38	31
ALANS10001-4J61	1.0	18	15	12	10	42	38	34	40	36	32	46	38	31
ALANS10001-4J41	1.0	18	15	12	10	42	38	34	40	36	32	46	38	31

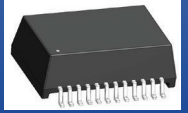
Part Number	Inductance (uH Min)	Leakage Inductance (uH Max)	Interwinding Capacitance (pF Max)	DC Resistance (Ω Max)		Hi Pot (VDC)
				Primary	Secondary	
	@100kHz, 0.1V, 8mA DC Bias	@100kHz, 0.1V TD to MX	@100kHz, 0.1V TD to MX			0.5mA/6 sec.
ALANS10001-3J11	350	0.35	35	0.9	1.2	2500
ALANS10001-3J61	350	0.35	35	1.2	0.9	2500
ALANS10001-3J41	350	0.35	35	0.9	0.9	2500
ALANS10001-4J11	350	0.35	35	0.9	1.2	2500
ALANS10001-4J61	350	0.35	35	1.2	0.9	2500
ALANS10001-4J41	350	0.35	35	0.9	0.9	2500

## Product Marking



YY: Year: E.g. 22 for 2022  
WW: Week: E.g. 05 for the 5<sup>th</sup> week of the year.  
Date codes with \* indicates varnish is used to coat the toroids, otherwise coating is RTV silicone.

# 10/100/1000 BASE-T Single Port SMD LAN Transformer Module



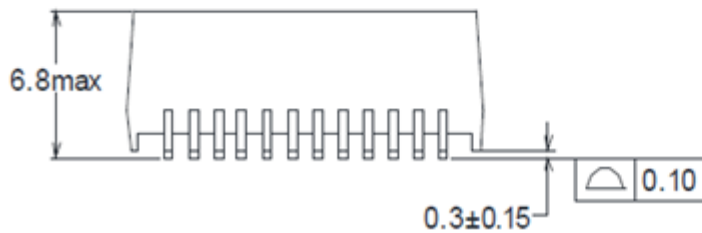
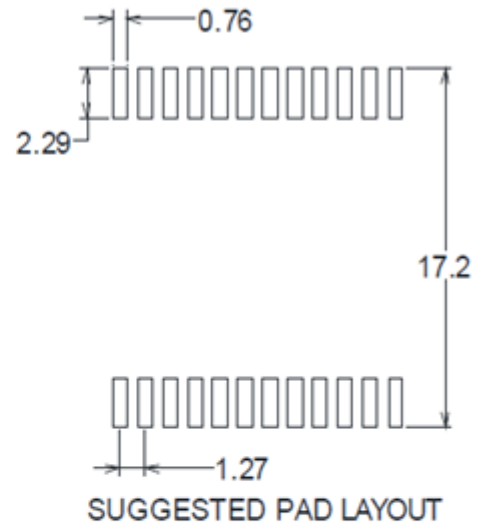
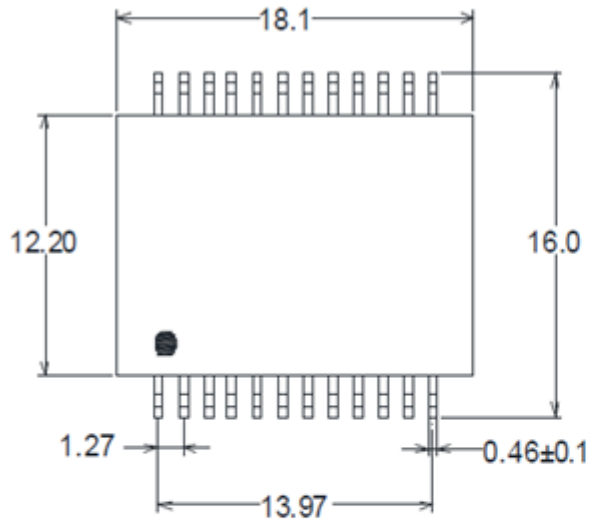
ALANS10001



18.1 x 12.2 x 6.8 mm  
13.7 x 15.3 x 6.7 mm  
RoHS/RoHS II  
Compliant  
MSL = 1

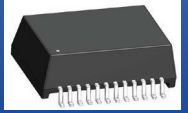
## Mechanical Dimensions

### 3: 24-pin option 1



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

# 10/100/1000 BASE-T Single Port SMD LAN Transformer Module



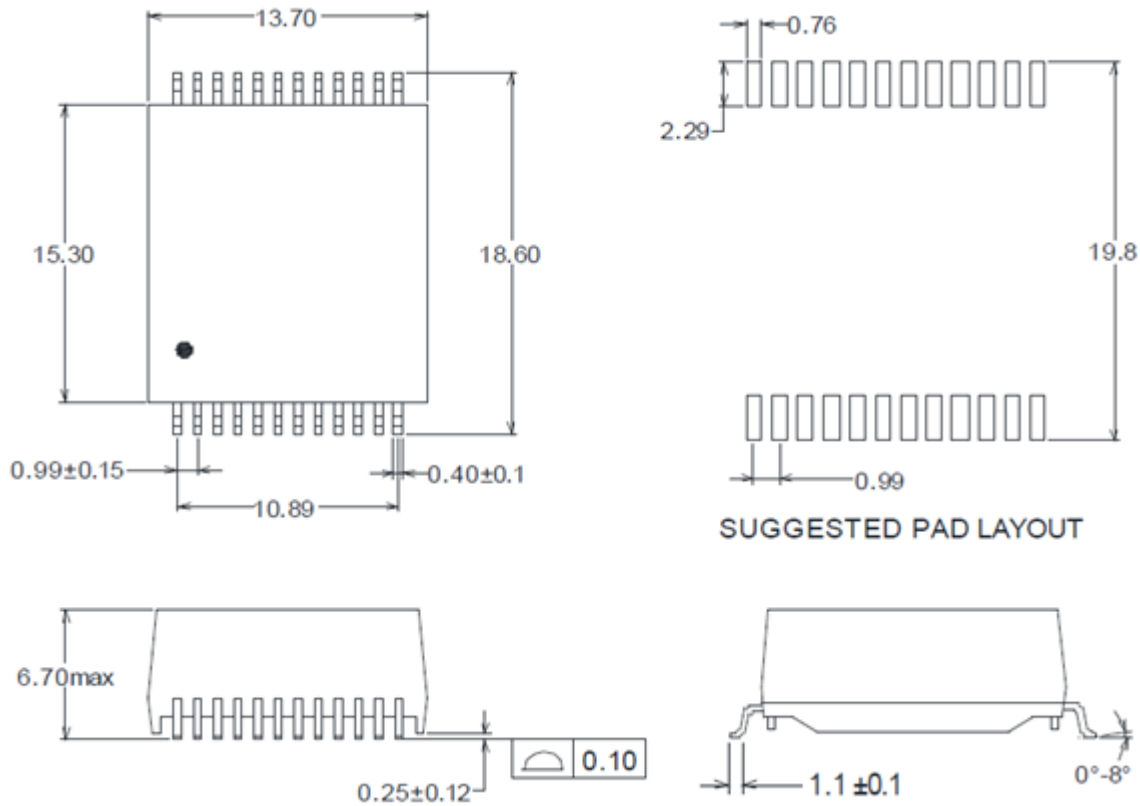
ALANS10001



18.1 x 12.2 x 6.8 mm  
13.7 x 15.3 x 6.7 mm  
RoHS/RoHS II Compliant  
MSL = 1

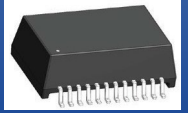
## Mechanical Dimensions

### 4: 24-pin option 2



Unless otherwise specified, all tolerances are ±0.25 in mm  
Dimensions: mm

# 10/100/1000 BASE-T Single Port SMD LAN Transformer Module



ALANS10001

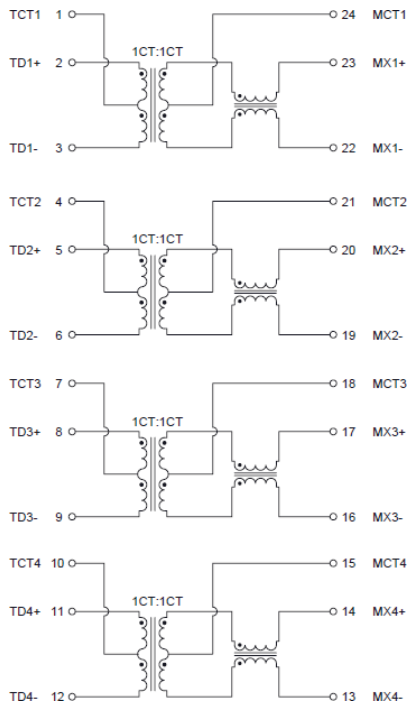


18.1 x 12.2 x 6.8 mm  
 13.7 x 15.3 x 6.7 mm  
 RoHS/RoHS II Compliant  
 MSL = 1

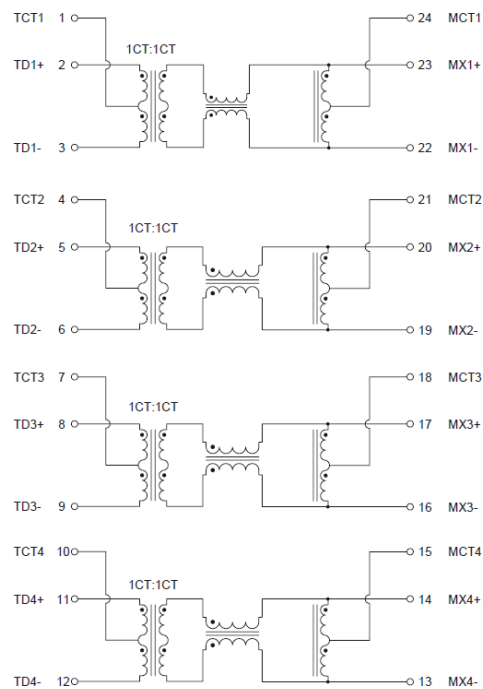
## Schematics

### 24-Pin

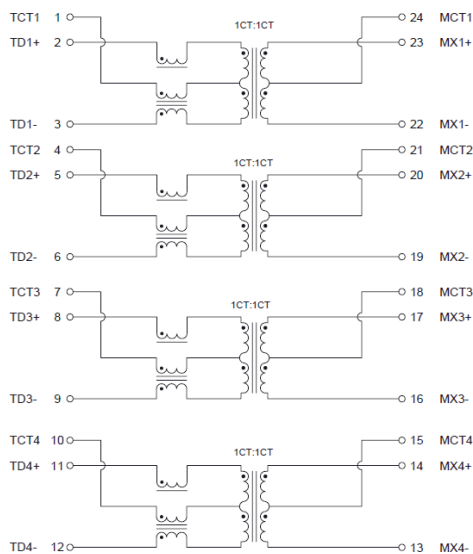
#### J11



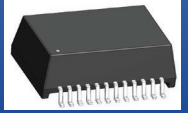
#### J41



#### J61



# 10/100/1000 BASE-T Single Port SMD LAN Transformer Module

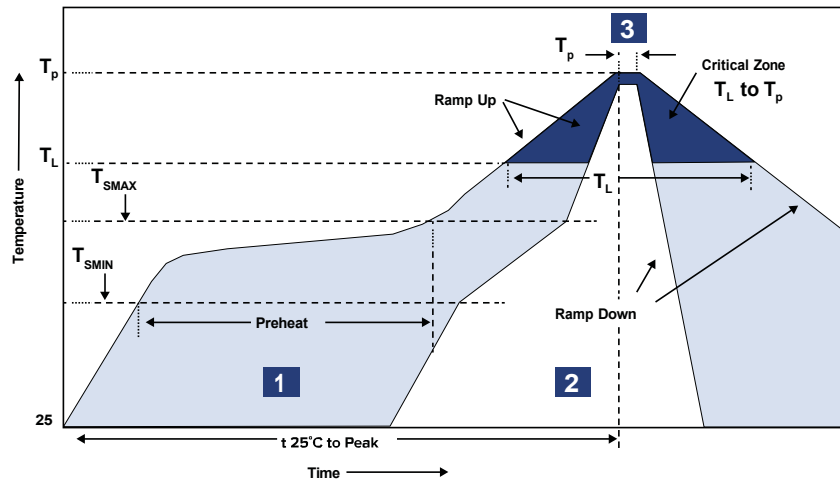


ALANS10001



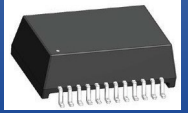
18.1 x 12.2 x 6.8 mm  
 13.7 x 15.3 x 6.7 mm  
 RoHS/RoHS II Compliant  
 MSL = 1

## Reflow Profile



Zone	Description	Temperature	Time
1	Preheat / Soak	$T_{SMIN} \sim T_{SMAX}$ $150^{\circ}C \sim 180^{\circ}C$	60 ~ 120 sec.
2	Reflow	$T_L$ $217^{\circ}C$	30 ~ 40 sec.
3	Peak heat	$T_P$ $245^{\circ}C \pm 5^{\circ}C$	10 sec. MAX

# 10/100/1000 BASE-T Single Port SMD LAN Transformer Module



ALANS10001



18.1 x 12.2 x 6.8 mm  
13.7 x 15.3 x 6.7 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Packaging

### Package size option 3:

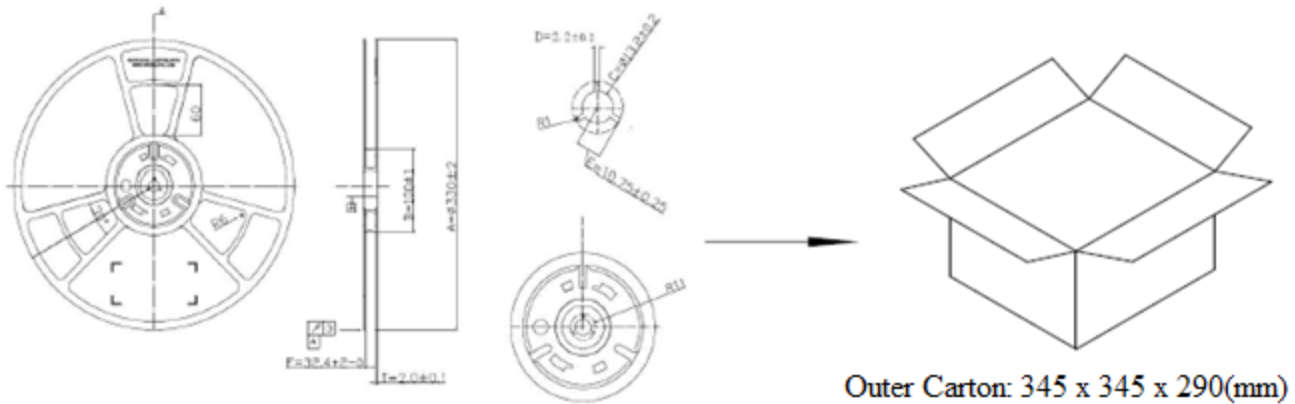
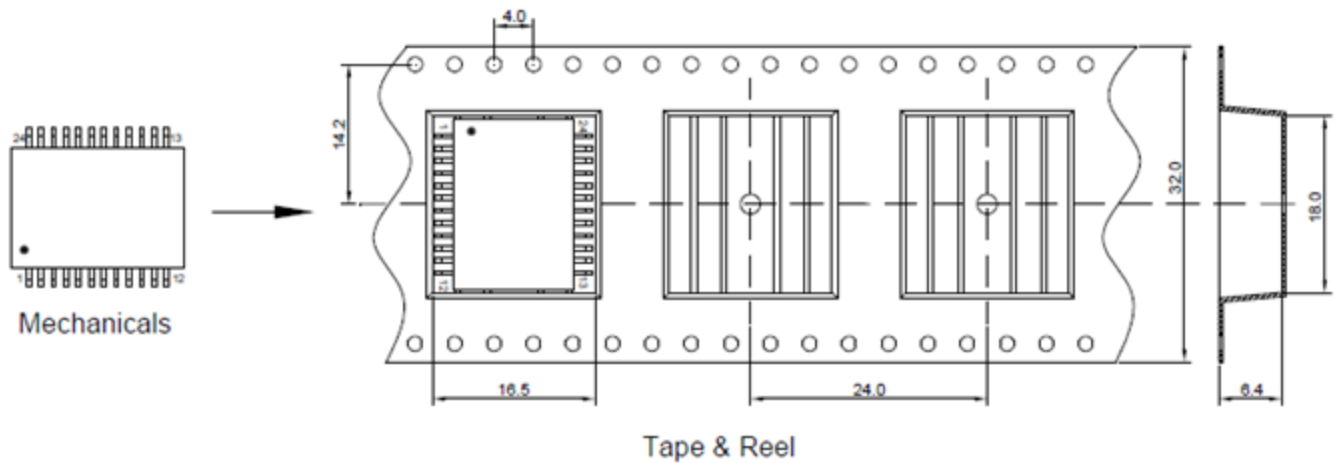
Tape and Reel: 400 pcs/reel

Pieces per Carton: 2800

T&R per Carton: 7

Weight per Carton: 9.0kg

Weight per Piece: 1.47g



Dimensions: mm

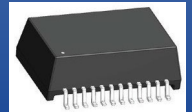


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# 10/100/1000 BASE-T Single Port SMD LAN Transformer Module



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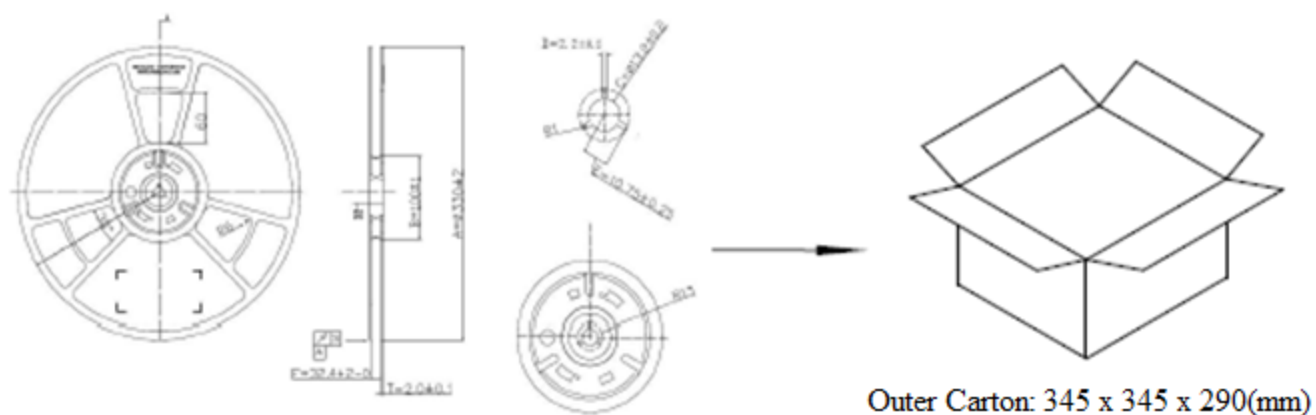
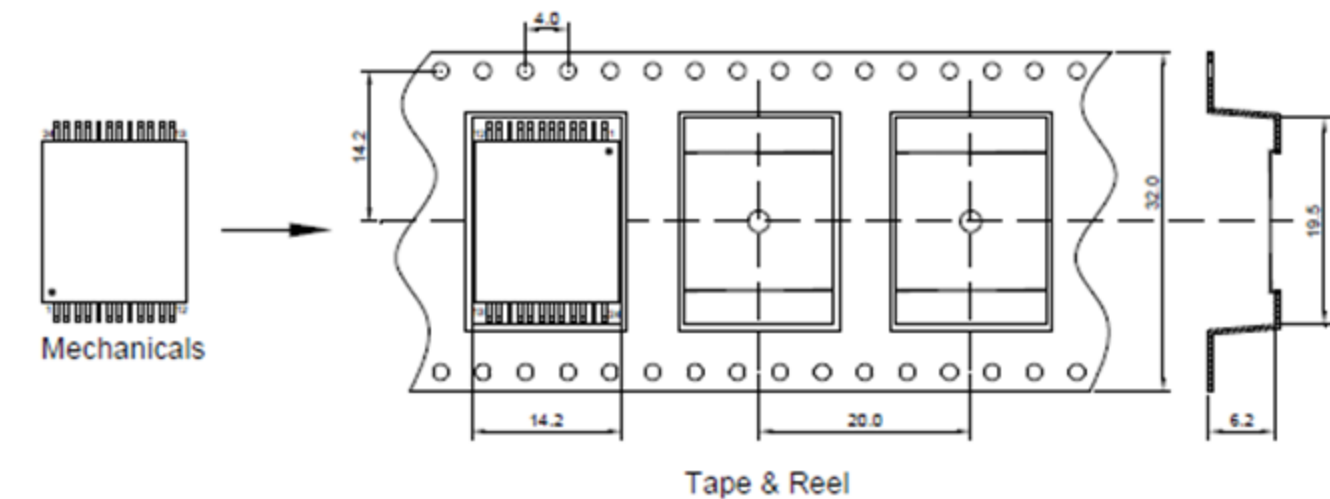


18.1 x 12.2 x 6.8 mm  
13.7 x 15.3 x 6.7 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Packaging

### Package size option 4:

Tape and Reel: 400 pcs/reel  
Pieces per Carton: 2800pcs  
T&R per Carton: 7  
Weight per Carton: 9.5kg  
Weight per Piece: 1.62g



Dimensions: mm

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