

## Features

- Compliant with IEEE 802.3 standards
- Designed for 10/100/1000 Base-T full duplex
- Supports four pairs of Category 5 UTP/6 UTP cables
- Extended operating temperature range
- RoHS compliant\*

## Applications

- Ethernet

# PT61022XL 10/100/1000 Base-T Transformer

### Electrical Specifications @ 25 °C

Turns Ratio (±5 %)	1CT*:1CT*
Inductance	350 μH min. @ 100 KHz, 0.1 Vrms, 8 mA DC Bias
Leakage Inductance	0.5 μH max. @ 100 KHz, 0.1 Vrms
C <sub>ww</sub>	25 pF typ. @ 100 KHz, 0.1 Vrms
DCR	0.9 Ω max.
Insertion Loss	
0.3-100 MHz	-1.1 dB max.
Return Loss	
0.3-30 MHz	-18 dB min.
30-60 MHz	-14 dB min.
60-80 MHz	-12 dB min.
80-100 MHz	-10 dB min.
Common Mode Rejection	
0.3-60 MHz	-35 dB Min.
60-100 MHz	-30 dB Min.
Crosstalk	
0.3-60 MHz	-35 dB Min.
60-100 MHz	-28 dB Min.
Hipot	
1 mA, 60 sec.	1500 Vrms
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +125 °C

\*CT: Center tap

### Material

Terminal Finish ..... Tin

### Packaging Specifications

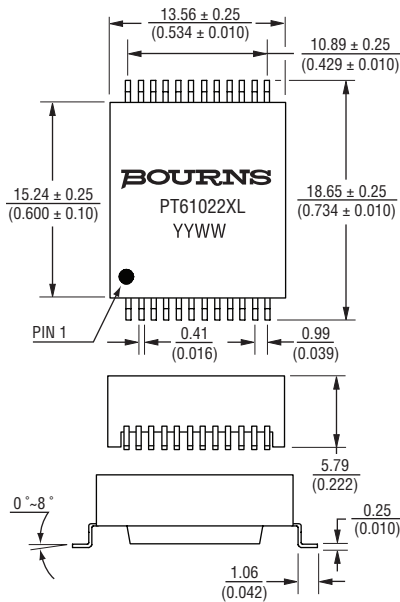
Tape & Reel ..... 500 pcs./reel

### How To Order

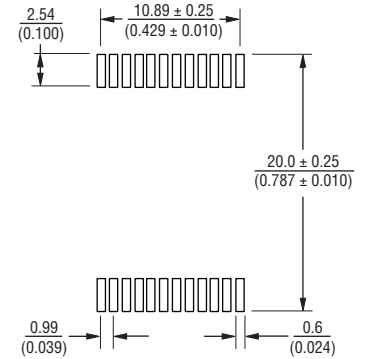
**PT61022 X E L**

Model	_____
Type	_____
X = Extended Temperature Range	
Packaging	_____
E = Tape and Reel (500 pcs./reel)	
Termination	_____
L = Tin only (RoHS Compliant)	

### Product Dimensions



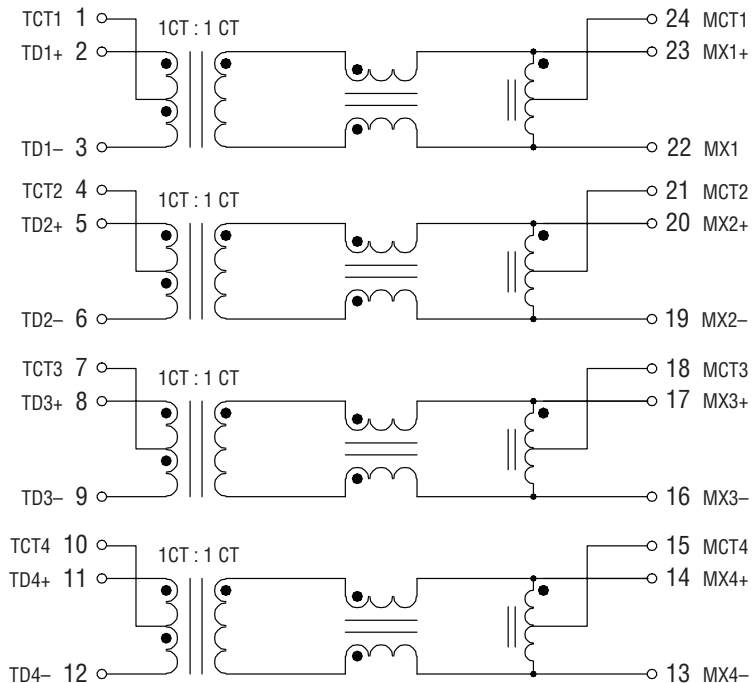
### Recommended Layout



DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

TOLERANCES:  $\frac{0.05}{(0.002)}$  UNLESS OTHERWISE NOTED

### Electrical Schematic



**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice.

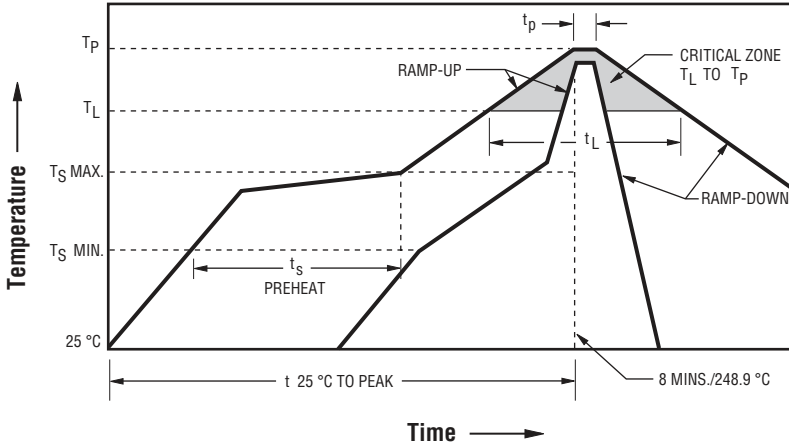
Users should verify actual device performance in their specific applications.

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# PT61022XEL 10/100/1000 Base-T Transformer

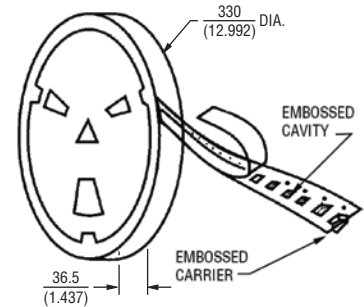
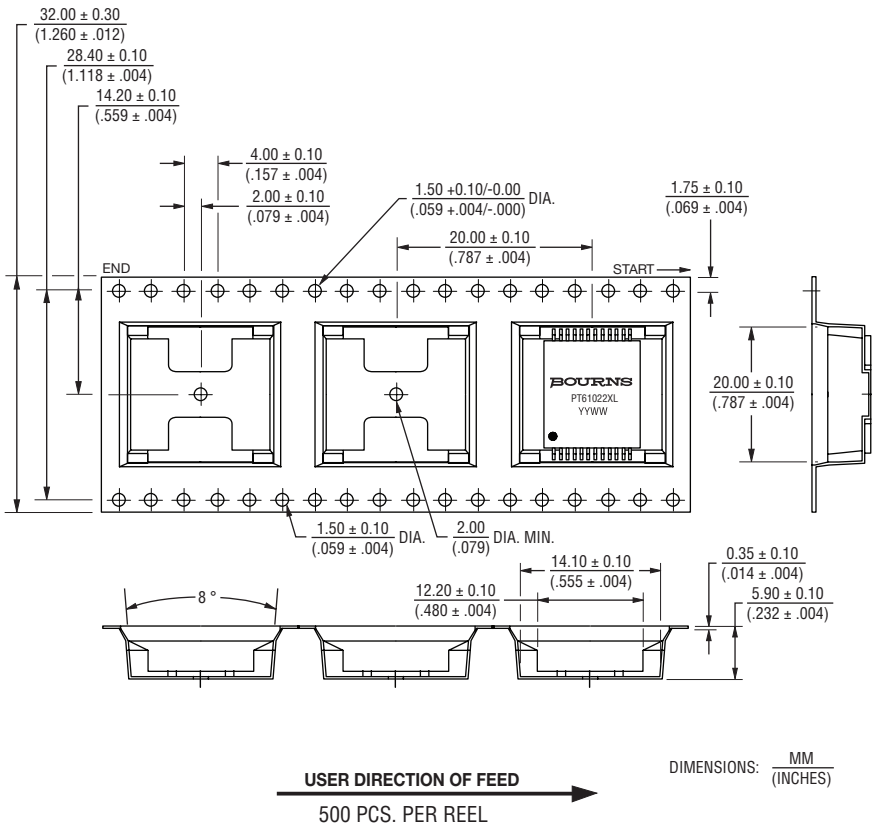
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## Soldering Profile



Ramp up rate = 3 °C/second max.  
 Ramp down rate = 6 °C/second max.  
 $T_L = 217\text{ °C}$   
 $t_L = 60\text{ seconds to }150\text{ seconds}$   
 $T_P = 250 \pm 3\text{ °C}$   
 Time within 5 °C of Actual Peak Temperature ( $t_p$ ) = 20-40 seconds  
 $T_{S\text{ min}} = 150\text{ °C}$   
 $T_{S\text{ max}} = 200\text{ °C}$   
 $T_{S\text{ min}}\text{ to }T_{S\text{ max}} = 60\text{ seconds to }180\text{ seconds}$   
 25 °C to Peak Temperature = 8 minutes max.

## Packaging Specifications



REV. 12/18

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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