

Features

- Compliant with IEEE 802.3 standards
- Designed for 10/100/1000 Base-T full duplex
- Supports four pairs of Category 5 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*
Inductance350 μ H min. @ 100 KHz, 0.1 Vrms, 8 mA DC Bias
Leakage Inductance0.5 μ H max. @ 100 KHz, 0.1 Vrms
Cww25 pF typ. @ 100 KHz, 0.1 Vrms
DCR0.9 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

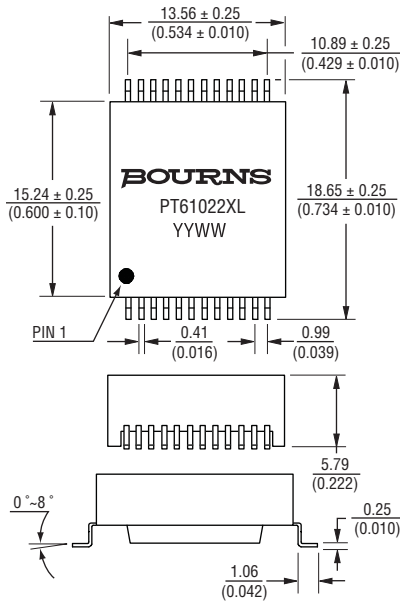
Tape & Reel 500 pcs./reel

How To Order

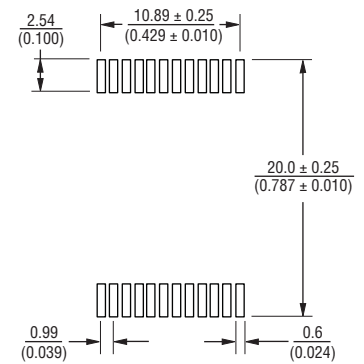
PT61022 X E L

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

Product Dimensions



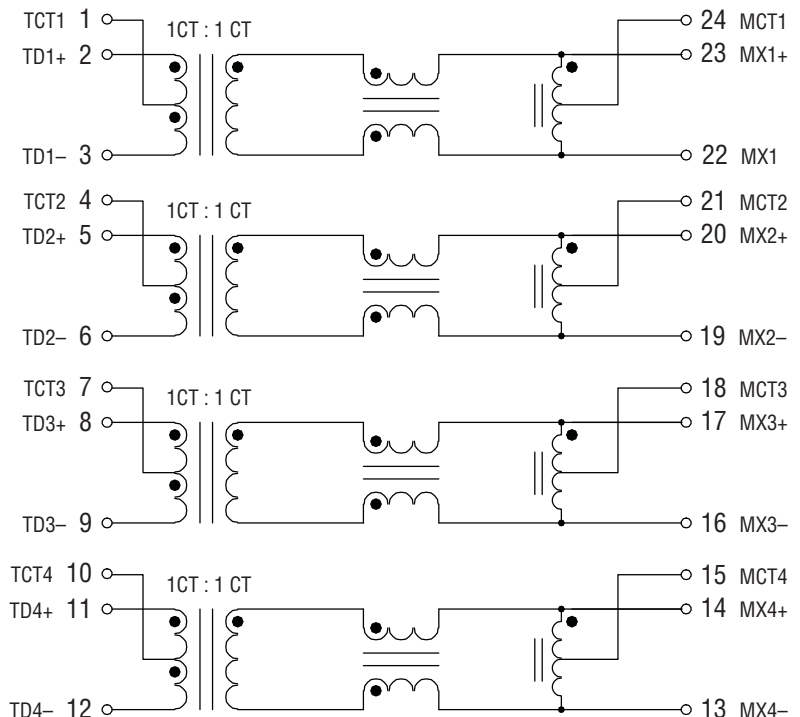
Recommended Layout



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

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

Electrical Schematic



*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.

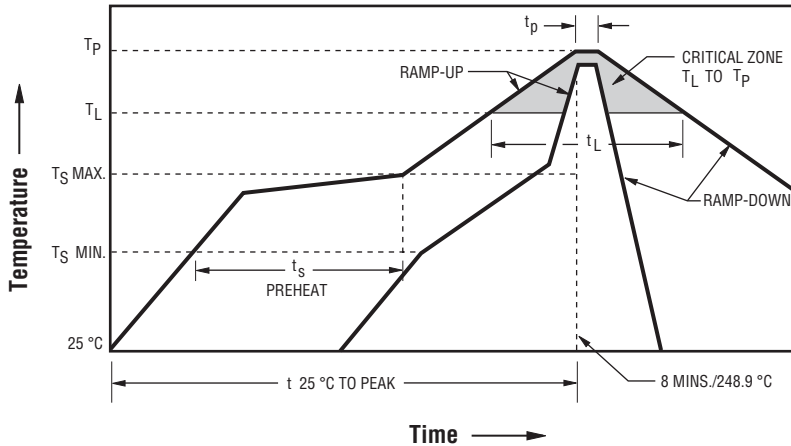
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.

PT61022XEL 10/100/1000 Base-T Transformer

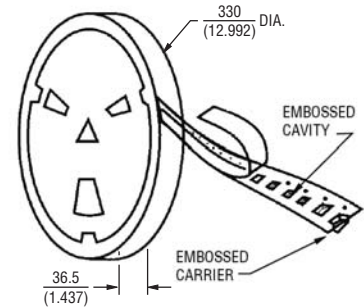
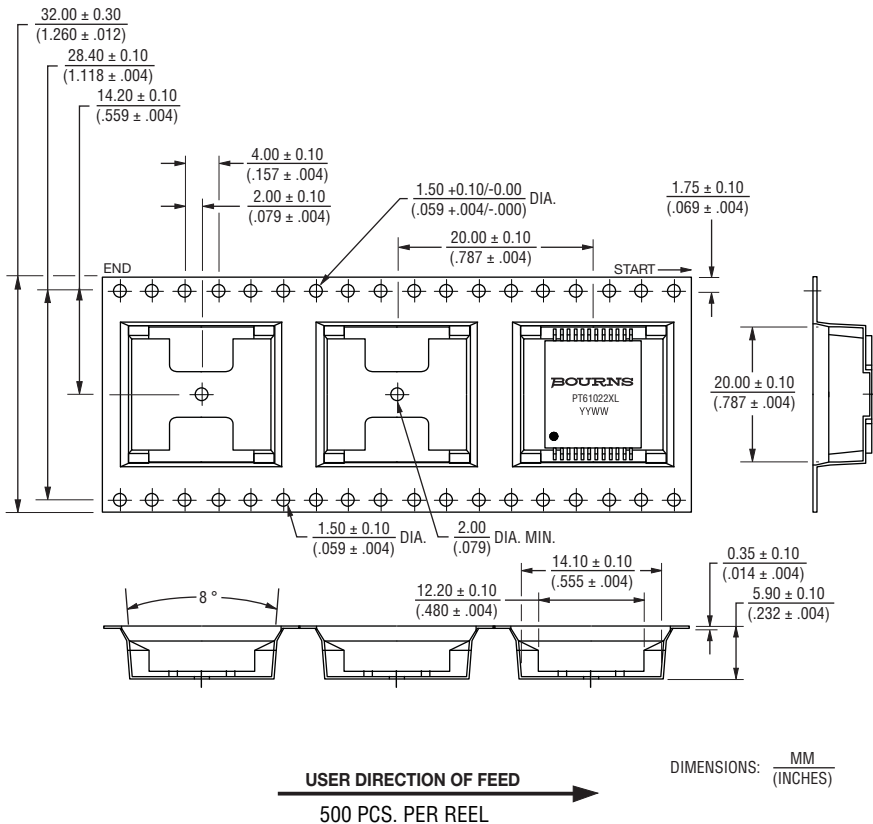
BOURNS®

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
 $T_S \text{ min} = 150 \text{ °C}$
 $T_S \text{ max} = 200 \text{ °C}$
 $T_S \text{ min to } T_S \text{ max: } 60 \text{ seconds to } 180 \text{ seconds}$
 25 °C to Peak Temperature = 8 minutes max.

Packaging Specifications



BOURNS®

Asia-Pacific:
 Tel: +886-2 2562-4117
 Fax: +886-2 2562-4116

EMEA:
 Tel: +36 88 520 390
 Fax: +36 88 520 211

The Americas:
 Tel: +1-951 781-5500
 Fax: +1-951 781-5700

www.bourns.com