

Features

- Compliant with IEEE802.3ab Draft Standards for 1000 Base-T
- Designed for Long Haul Gigabit Ethernet 10/100/1000 Base-T Full Duplex applications
- Low profile surface mount packaging designed for reflow process (245 ° peak)
- Supports 4 pairs of Category 5 UTP cables

- RoHS compliant*

Applications

- LAN
- Ethernet

PT61020EL LAN 10/100/1000 Base-T Transformer Modules

Electrical Specifications @ 25 °C

Inductance	350 μ H min.
with 8 mA DC bias @ 100 KHz, 0.2 V	
Leakage Inductance	0.50 μ H max.
@ 100 KHz, 0.2 V	
Interwinding Capacitance	25 pF typ.
@ 100 KHz, 0.2 V	
DC Resistance	0.90 Ω max.
Insertion Loss	0.3-100 MHz
	-1.1 dB max.
Return Loss (dB min.)	
0.3-30 MHz	-18
40 MHz.....	-14.4
50 MHz.....	-13.1
60-80 MHz	-12
Cross Talk (dB min.)	
0.3-30 MHz	-35
60-100 MHz	-28
Common Mode Rejection (dB min.)	
0.3-30 MHz	-40
60 MHz.....	-35
80-100 MHz	-30
Turns Ratio	1 CT:1 \pm 5 %
PoE+ Current	
..... Up to 650 mA for 1000 Base-T	
Isolation Hi-Pot.....	1500 VAC 1 mA 1 sec.
Operating Temperature	
.....	-40° C to +85 °C

PT61020EL is the extended temperature version of PT61024L.

Environmental Specifications

Moisture Sensitivity Level	1
ESD Classification (HBM).....	N/A

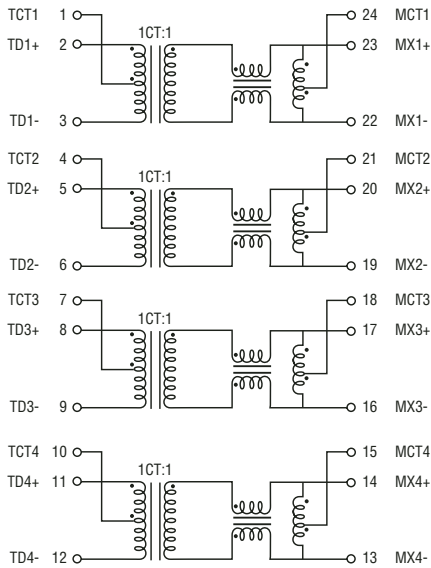
Packaging Specifications

Tape & Reel	350 pcs./reel
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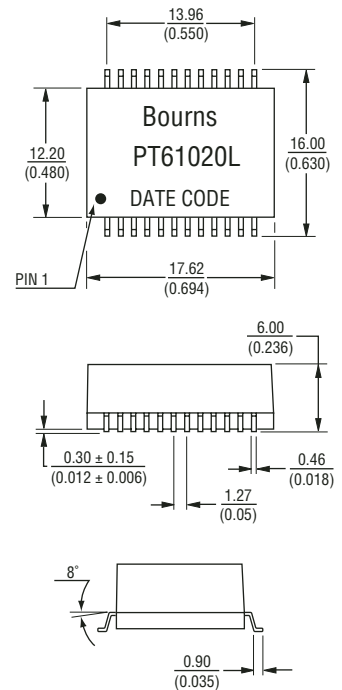
How To Order

Model PT61020E L
 Termination _____
 L = Tin only (RoHS Compliant)

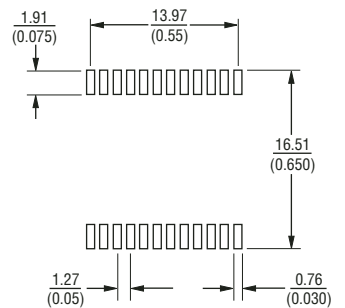
Electrical Schematic



Product Dimensions



Recommended Layout



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

TOLERANCES: $\pm \frac{0.25}{(.010)}$



WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex. Specifications are subject to change without notice.

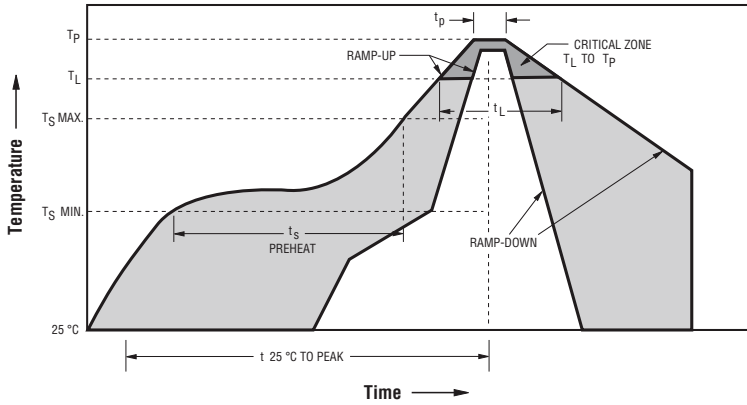
Users should verify actual device performance in their specific applications.

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PT61020EL LAN 10/100/1000 Base-T Transformer Modules

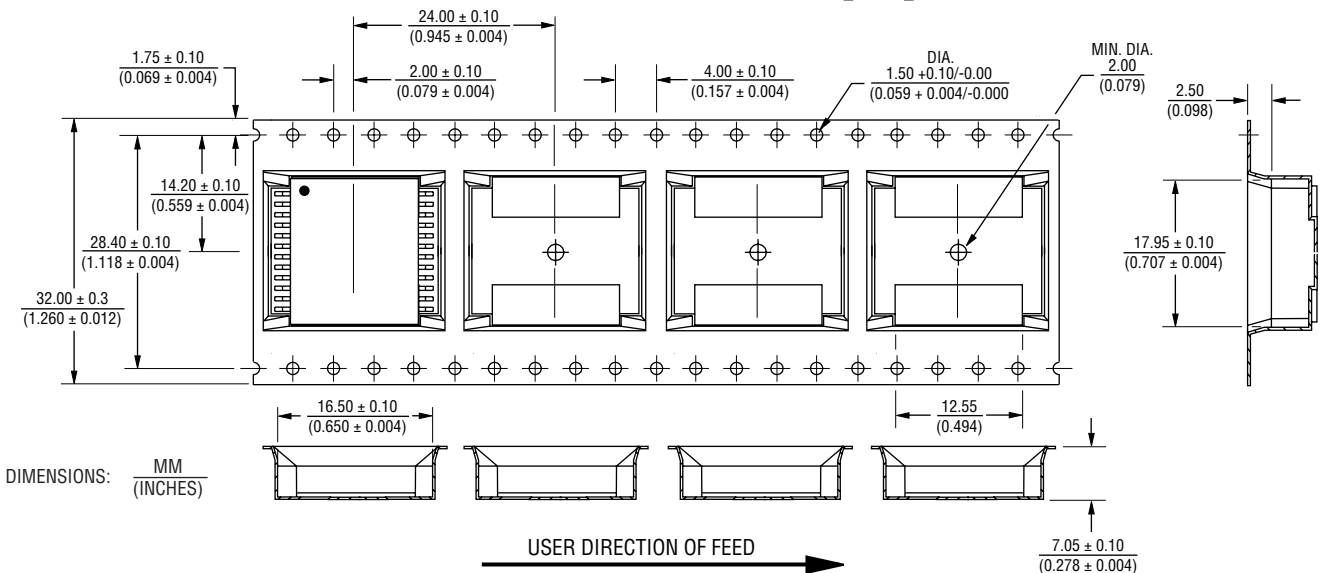
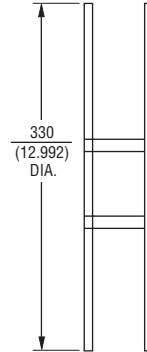
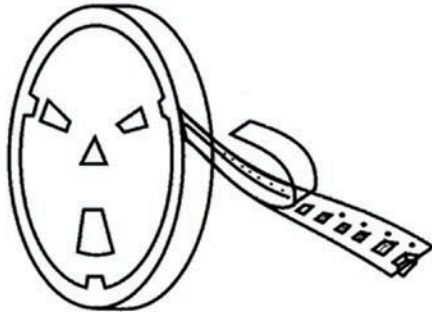
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Solder Profile



Ramp-up rate = 3 °C/sec. max.
 Ramp-down rate = 6 °C/sec. max.
 T_L = 217 °C t_L = 60-150 sec.
 T_P = 250 °C ±3 °C
 Time within 5 °C of actual Peak Temp (t_p)₂ = 20-40 sec.
 T_S min = 150 °C T_S max = 200 °C
 T_S min to T_S max = 60-180 sec., 25 °C to Peak Temperature = 8 min. max.

Packaging Specifications



REV. 03/20

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