



## Features

- IEEE 802.3 Ethernet compatible
- Fully integrated for adapter, hub and motherboard applications
- Extended temperature range: -40 to +85 °C
- AEC-Q200 Qualified.
- RoHS compliant\*

## PT61018AAPL-S - 10/100 Base-T Transformer

### Electrical Specifications @ 25 °C

Inductance - OCL	350 $\mu$ H min. @ 100 kHz, 0.1 Vrms, 8 mA DC Bias
Turns Ratio ( $\pm 5\%$ )	1CT*:1CT*
DCR	1.2 $\Omega$ Max.
Insertion Loss	
1-100 MHz	-1.15 dB Max.
Return Loss	
1-30 MHz	-18 dB Min.
30-60 MHz	-13 dB Min.
60-80 MHz	-12 dB Min.
Common Mode Rejection	
1-60 MHz	-37 dB Min.
60-100 MHz	-28 dB Min.
Cross Talk	
1-60 MHz	-40 dB Min.
60-100 MHz	-35 dB Min.
Hipot	
@ 1 mA, 60 sec.	1.5k Vrms
Operating Temperature	-40 to +85 °C
Storage Temperature	-40 to +125 °C

\*CT: Center tap

### Material

Termination.....Cu/Ni/Sn

### Packaging Specifications

Tape & Reel..... 600 pcs./reel

### How To Order

**PT61018A A P E L-S**

Model	PT61018A
AEC-Q200 Qualified	A
Automotive Grade	P
Construction	E
P = Potted	
Packaging	L
E = Tape and Reel (600 pcs./reel)	
Termination	S
L = Cu/Ni/Sn (RoHS Compliant)	
Version	
-S = Standard Version	

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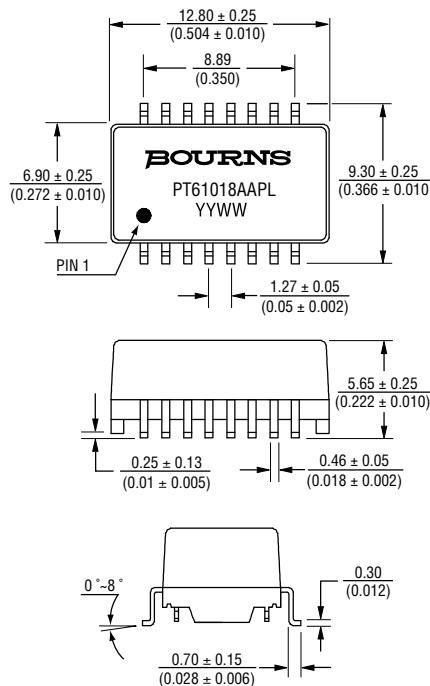
Tel: +36 88 520 390  
Email: eurocus@bourns.com

#### The Americas:

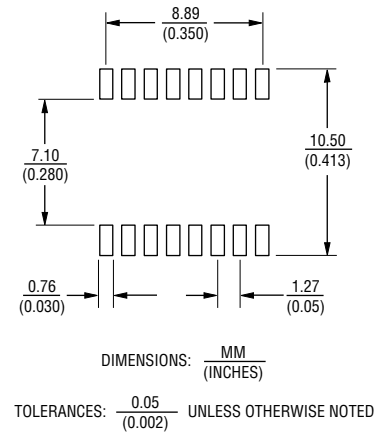
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Email: americus@bourns.com

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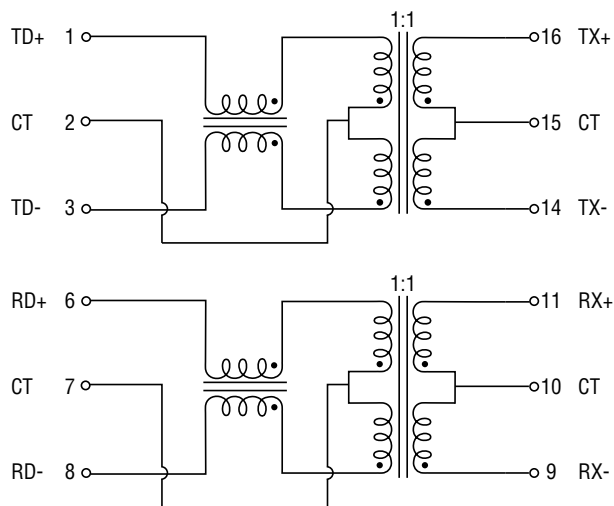
### Product Dimensions



### Recommended Layout



### 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.

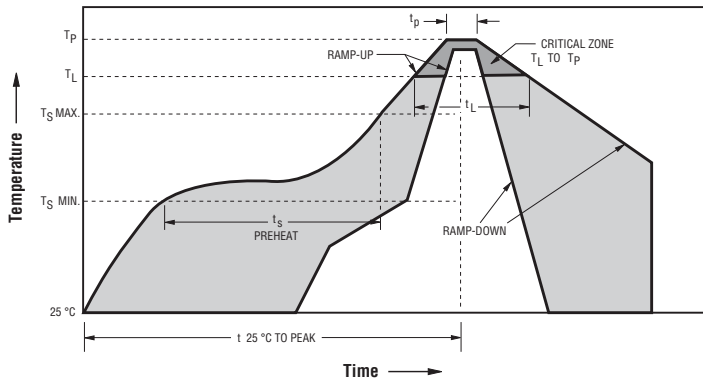
Users should verify actual device performance in their specific applications.

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# PT61018AAPEL-S - 10/100 Base-T Transformer

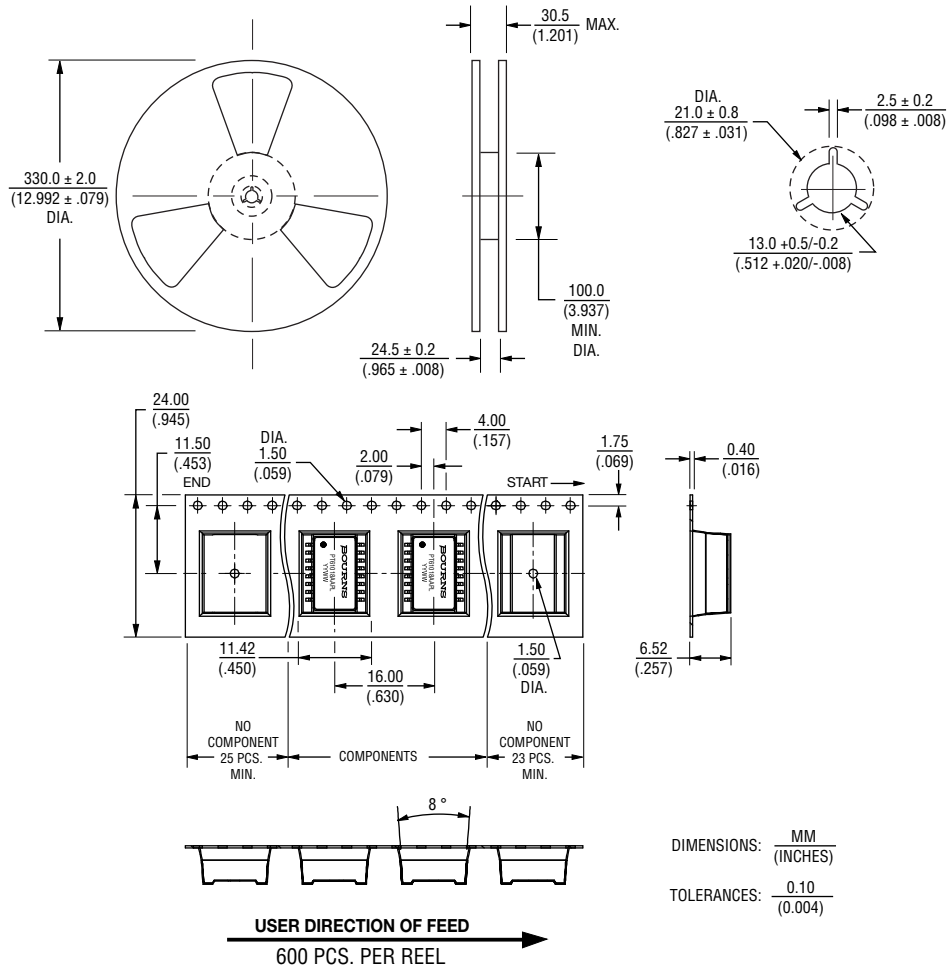
**BOURNS®**

## Solder Profile



Ramp-up rate = 3 °C/sec. max.  
 Ramp-down rate = 6 °C/sec. max.  
 $T_L = 217\text{ °C}$   $t_L = 60\text{-}150\text{ sec.}$   
 $T_P = 245\text{ °C} \pm 5\text{ °C}$   
 Time within 5 °C of actual Peak Temp ( $t_p$ ) = 20-40 sec.  
 $T_S\text{ min} = 150\text{ °C}$   $T_S\text{ max} = 200\text{ °C}$   
 $T_S\text{ min to } T_S\text{ max} = 60\text{-}180\text{ sec.}, 25\text{ °C to Peak Temperature} = 6\text{ min. max.}$

## Packaging Specifications



01/17

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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