



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 μ H min. @ 100 kHz,
	0.1 Vrms, 8 mA DC Bias
Turns Ratio ($\pm 5\%$)	1CT*:1CT*
DCR	1.2 Ω 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	

BOURNS®

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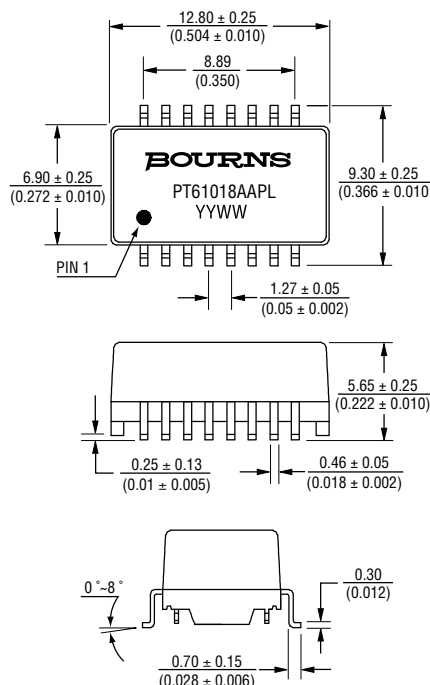
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Email: eurocus@bourns.com

The Americas:

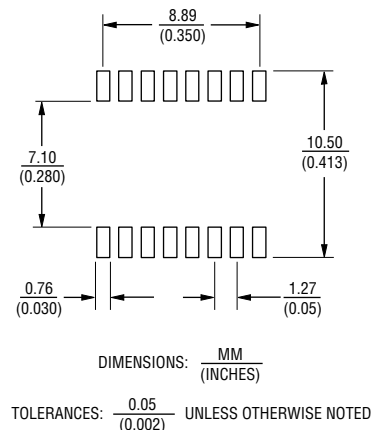
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Email: americus@bourns.com

www.bourns.com

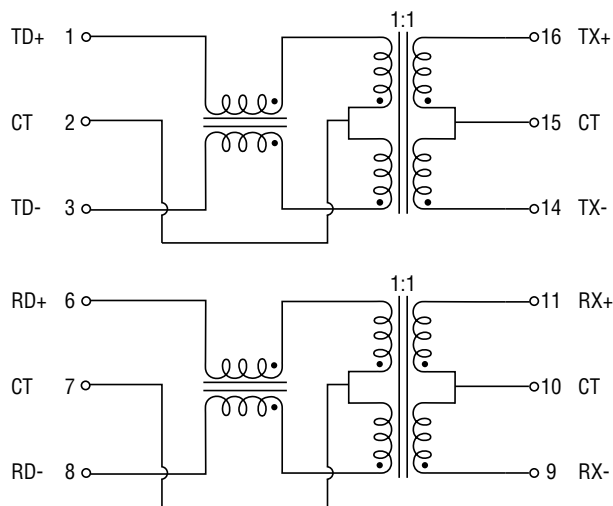
Product Dimensions



Recommended Layout



Electrical Schematic



WARNING Cancer and Reproductive Harm - 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.

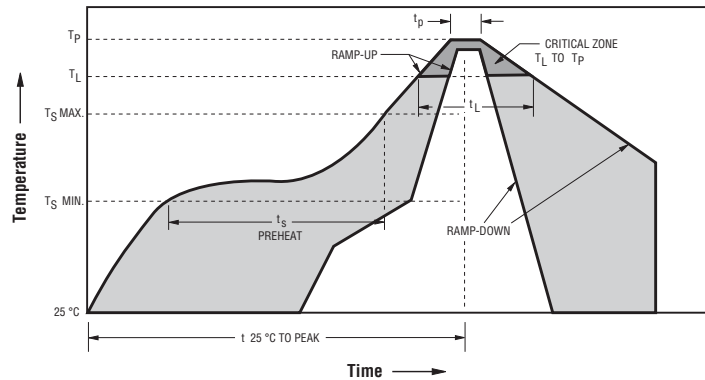
Users should verify actual device performance in their specific applications.

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PT61018AAPEL-S - 10/100 Base-T Transformer

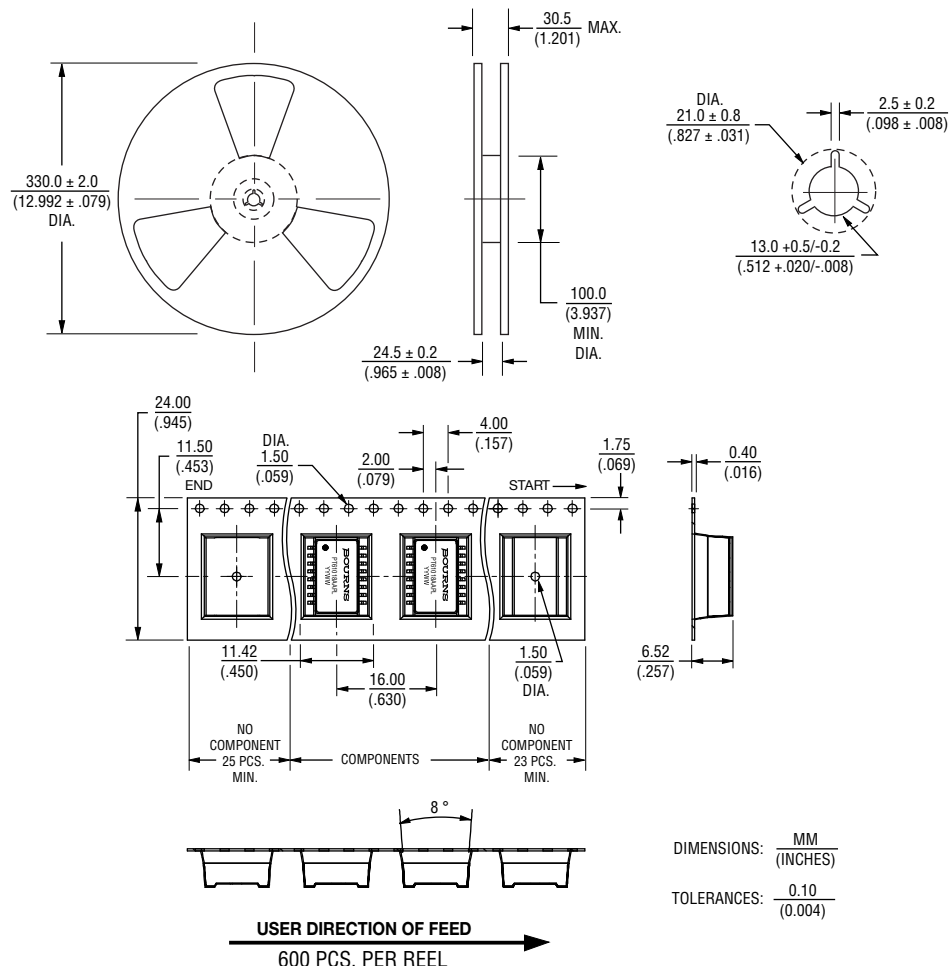
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Solder Profile



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

Packaging Specifications



01/17

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