



Features

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

Applications

- Automotive
- LAN
- Ethernet

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
-S = Standard Version	

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Asia-Pacific:

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Email: asiacus@bourns.com

Europe:

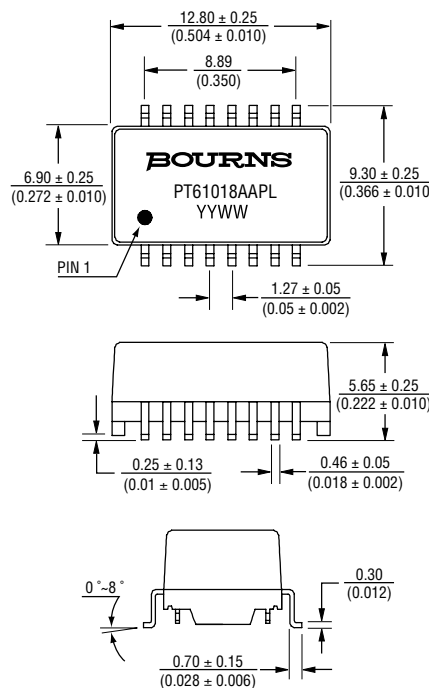
Tel: +36 88 520 390
Email: eurocus@bourns.com

The Americas:

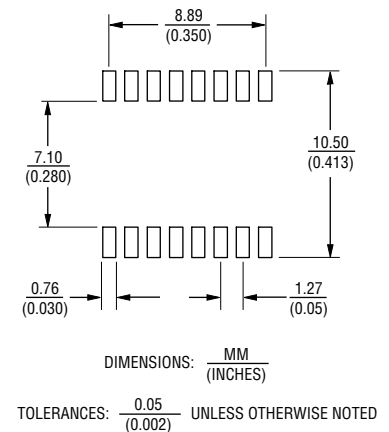
Tel: +1-951 781-5500
Email: americus@bourns.com

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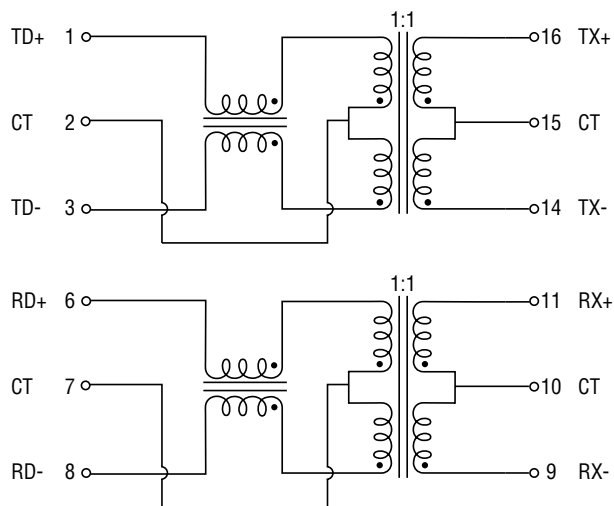
Product Dimensions



Recommended Layout



Electrical Schematic



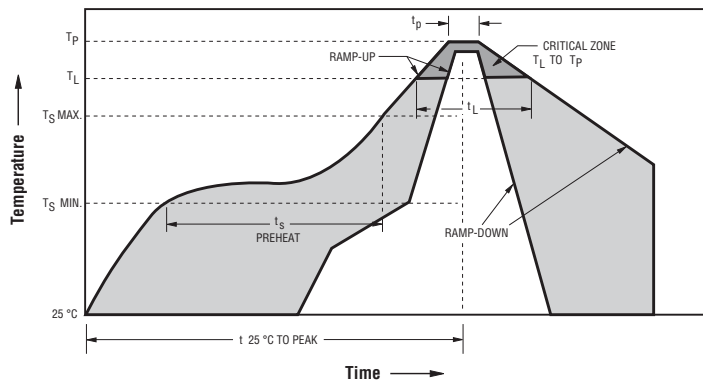
*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice.

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.

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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

