



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*

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



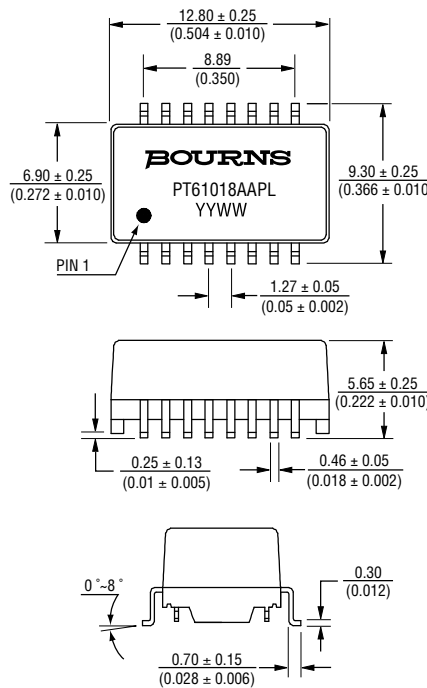
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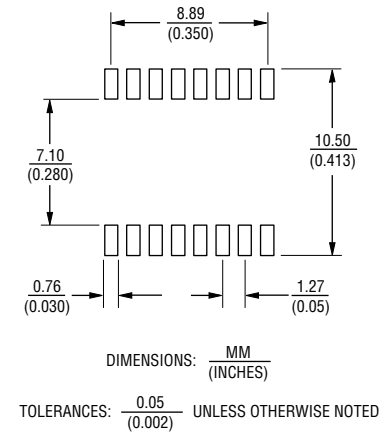
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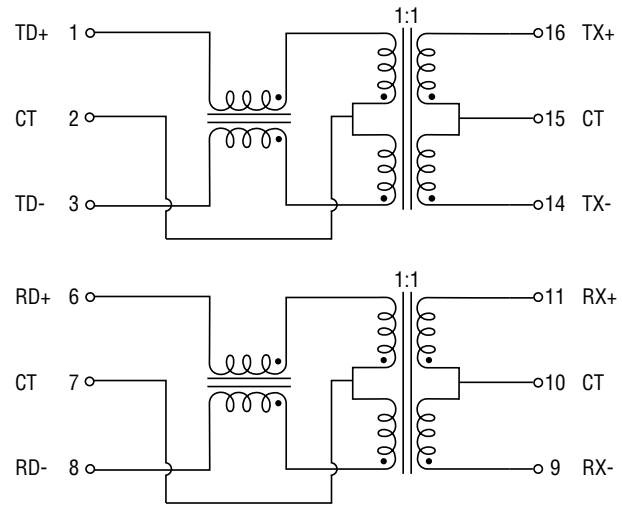
Product Dimensions



Recommended Layout



Electrical Schematic



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

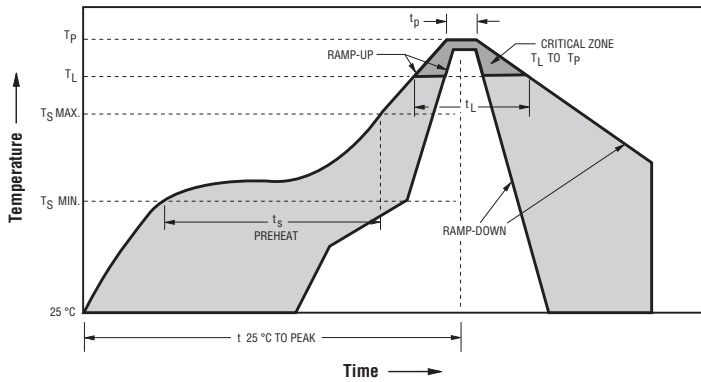
*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

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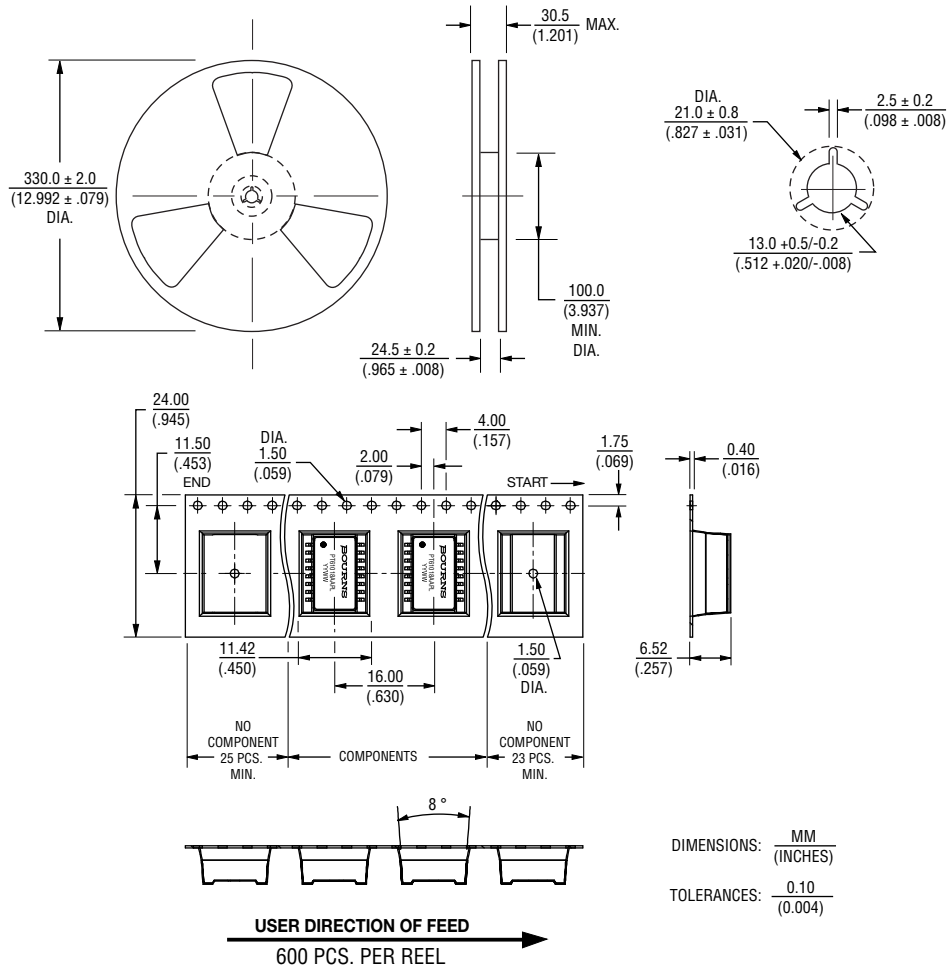
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Solder Profile



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 °C to Peak Temperature = 6 min. max.

Packaging Specifications



DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$
 TOLERANCES: $\frac{0.10}{(0.004)}$

01/17

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