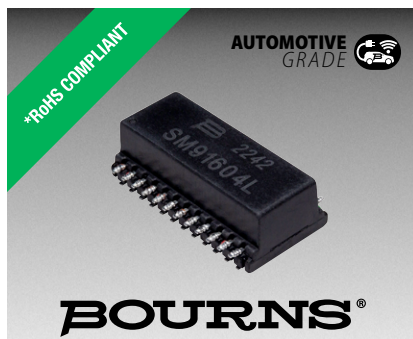




Features

- Single port Gigabit Ethernet
- Working voltage: 800 V
- Hi-Pot: 4680 VDC
- Design construction: Reinforced insulation per IEC 60664-1 and IEC 62368-1 requirements
- Creepage distance > 8 mm, pollution degree 2, material group CTI I
- Clearance distance > 8 mm, overvoltage category II
- RoHS compliant*

SM91604L LAN Transformer

Additional Information

Click these links for more information:



Electrical Specifications @ 25 °C

OCL (100 kHz / 0.1 V, 8 mA DC Bias)
(-40 °C to +105 °C)..... 350 μ H min.
Leakage Inductance (100 kHz/0.1 V)
..... 0.35 μ H max.

DCR

Transformer Side 0.90 Ω max.
CM Choke Side 1.30 Ω max.
Turns Ratio 1 : 1 $\pm$ 2 %
Insertion Loss

1~60 MHz..... -1.0 dB max.
60~100 MHz..... -1.5 dB max.
100~125 MHz..... -2.0 dB max.

Return Loss (Z out = 100 Ω)

1~30 MHz..... -13.0 dB min.
30~45 MHz..... -10.0 dB min.
45~60 MHz..... -8.0 dB min.
60~80 MHz..... -6.0 dB min.
80~100 MHz..... -5.0 dB min.
100~125 MHz..... -4.0 dB min.

Common Mode Rejection

1~100 MHz..... -25.0 dB min.

Cross Talk (Between each channel):

1 MHz..... -58 dB min.
5~100 MHz..... -30+20*LOG₁₀
(f/20 MHz) dB min.

Hi-POT (1 mA, 60 S) 4680 VDC

Working Voltage up to 800 V

Operating Temperature

..... -40 °C to +105 °C

Storage Temperature (Component)

..... -25 °C to +85 °C

Moisture Sensitivity Level 1

ESD Classification (HBM)..... N/A

Packaging Specification

Tape & Reel..... 200 pcs. per 13-inch reel

How To Order

SM91604 L - E

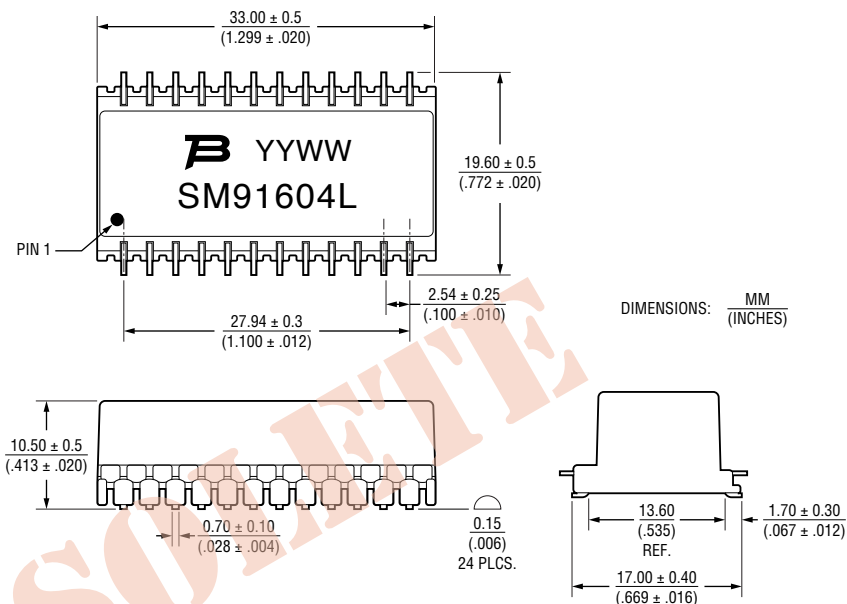
Model _____

RoHS Compliancy Designator _____

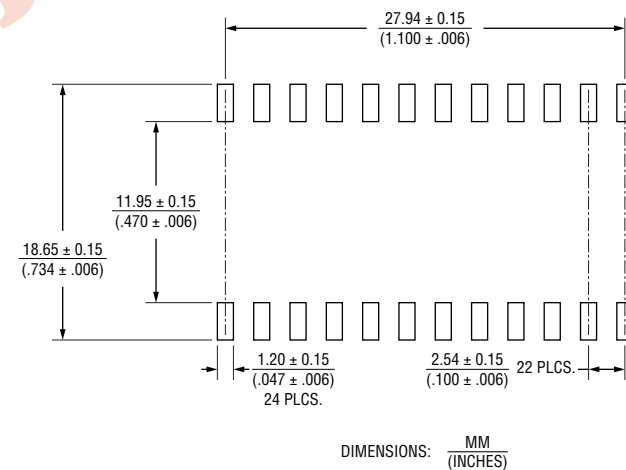
Packaging _____

E = 200 pcs. per 13-inch Reel

Product Dimensions



Recommended Layout



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.

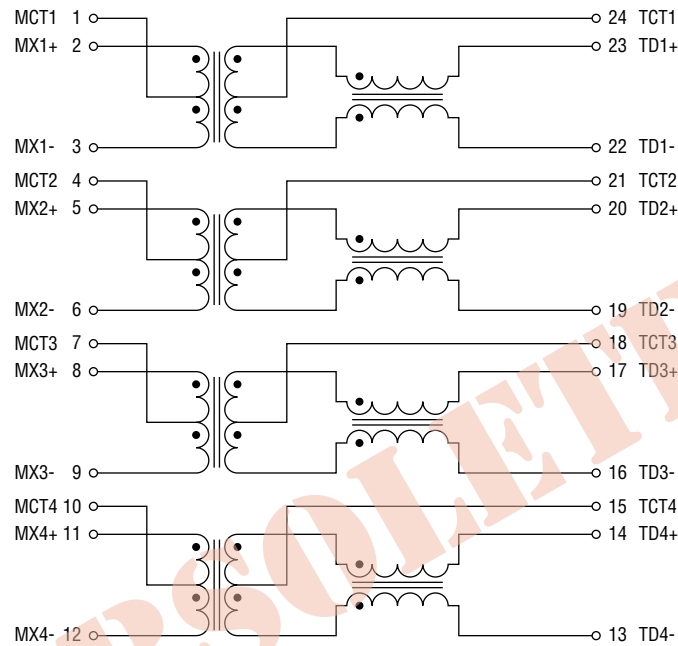
Users should verify actual device performance in their specific applications.

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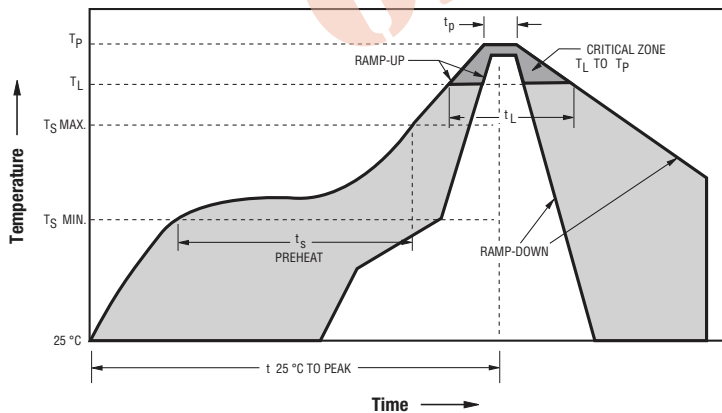
SM91604L LAN Transformer

BOURNS®

Electrical Schematic



Reflow Solder Profile



Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate	3 °C / second max.
PREHEAT: Temperature Min. (T_{smin}) Temperature Max. (T_{smax}) Time (T_{smin} to T_{smax})	150 °C 200 °C 60~180 seconds
Liquidus Temperature (T_L)	217 °C
Time Above Liquidus Temperature (t_L)	60~150 seconds
Peak Temperature (T_p)	245-250 °C
Time within 5 °C of Actual Peak Temperature (t_p)	20~40 seconds
Ramp-Down Rate from Peak Temperature	6 °C / second max
Time 25 °C to Peak Temperature (T_p)	8 minutes max.
Do Not Exceed	250 °C

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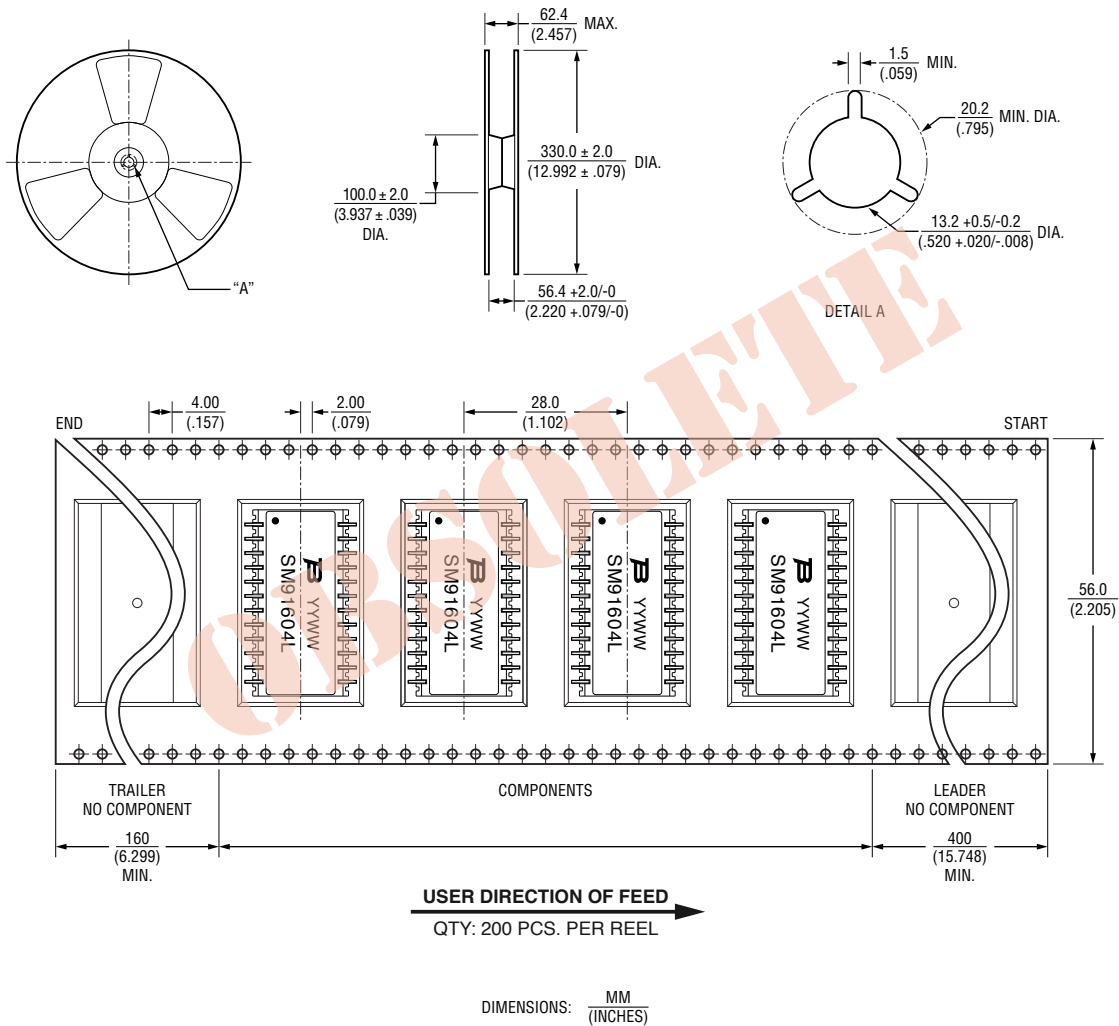
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SM91604L LAN Transformer

BOURNS®

Packaging Specifications

Specifications and tolerances comply with EIA-481 requirements.



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