

Features

- Single port Gigabit Ethernet
- Working voltage: 500 V
- Hi-Pot: 4680 VDC
- Design construction: Reinforced insulation per IEC 60664-1 and IEC 62368-1 requirements
- RoHS compliant*



This model is currently available but not recommended for new designs. [Please contact the product line for a possible replacement.](#)

- Creepage distance 5 mm min., Clearance distance 5 mm min., pollution degree 2, material group CTI I

SM91602L LAN Transformer

Additional Information

Click these links for more information:



General Specifications

OCL (100 kHz / 0.1 V, 8 mA DC Bias)	350 μ H min.
Leakage Inductance (100 kHz/0.1 V)	1.0 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 MHz	-1.0 dB max.
5~80 MHz	-3.0 dB max.
125 MHz	-5.0 dB max.
Return Loss (Z out = 100 Ω)	
1~30 MHz	-8.5 dB min.
30~45 MHz	-6.0 dB min.
45~60 MHz	-4.5 dB min.
Cross Talk (Between each Channel):	
1 MHz	-58 dB min.
5~100 MHz	-30+20*LOG ₁₀ (f/20 MHz) dB min.
Hi-pot (1 mA, 60 S)	4680 VDC
Working Voltage	up to 500 V
Operation Temperature	0 °C to +85 °C
Storage Temperature (Component)	-50 °C to +125 °C
Moisture Sensitivity Level	1
ESD Classification (HBM)	N/A

Packaging Specification

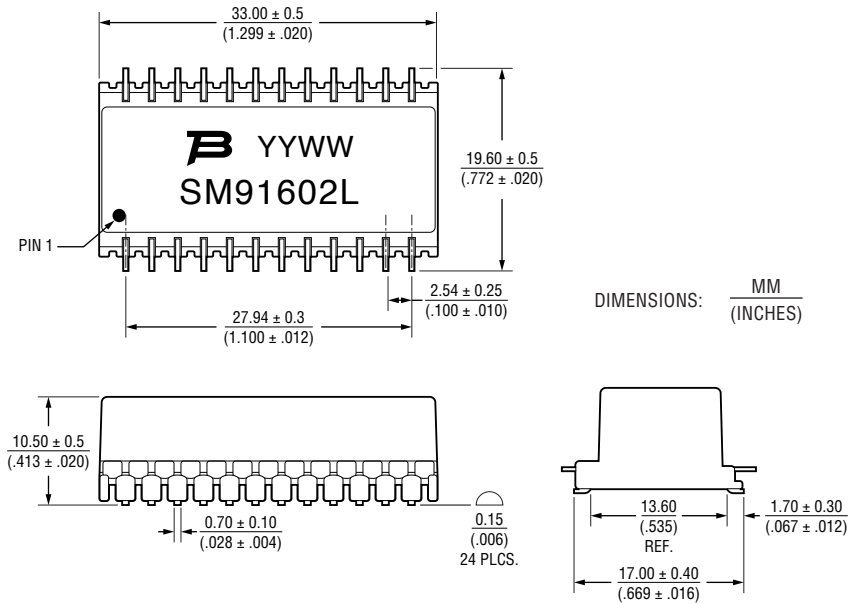
Tape & Reel..... 200 pcs. per 13-inch reel

How To Order

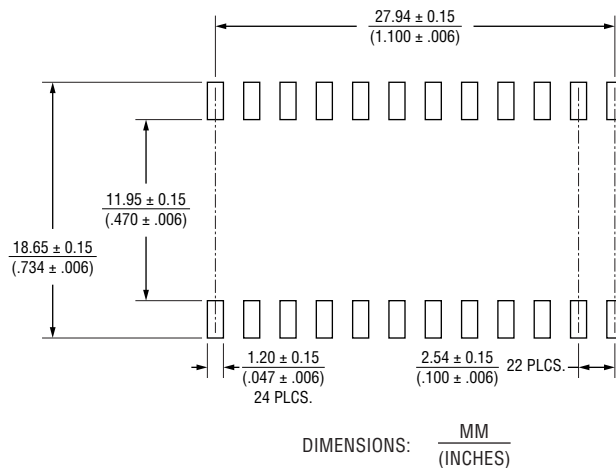
SM91602 L - E

Model _____
 RoHS Compliancy Designator _____
 Packaging _____
 E = 200 pcs. per 13-inch Reel,
 2 Reels per Box

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.

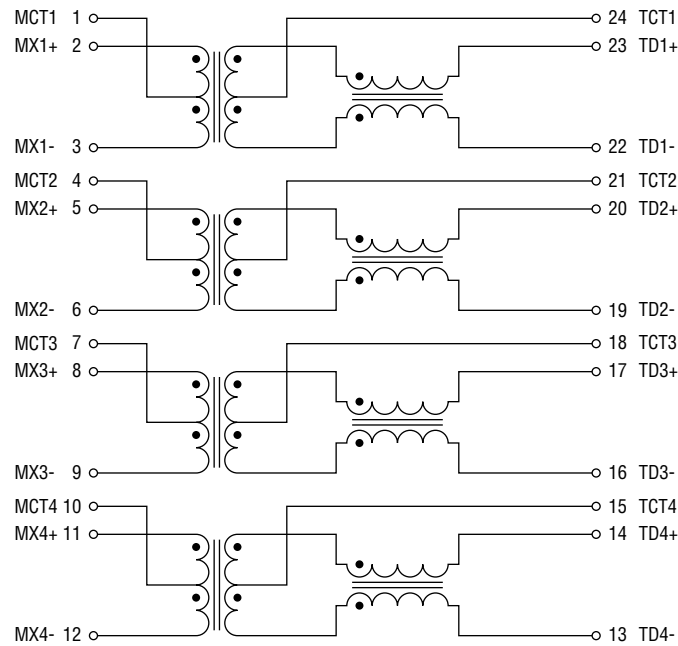
Users should verify actual device performance in their specific applications.

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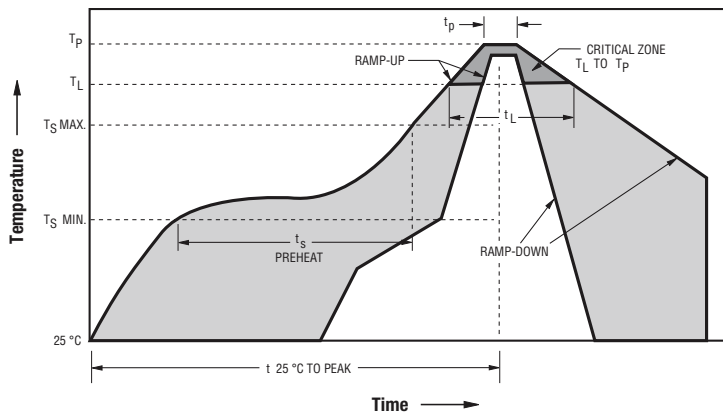
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Electrical Schematic



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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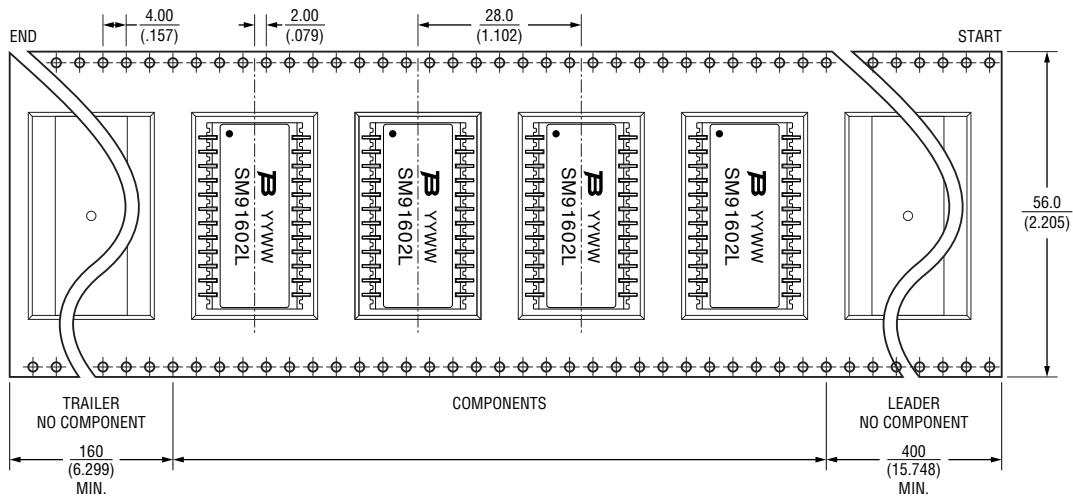
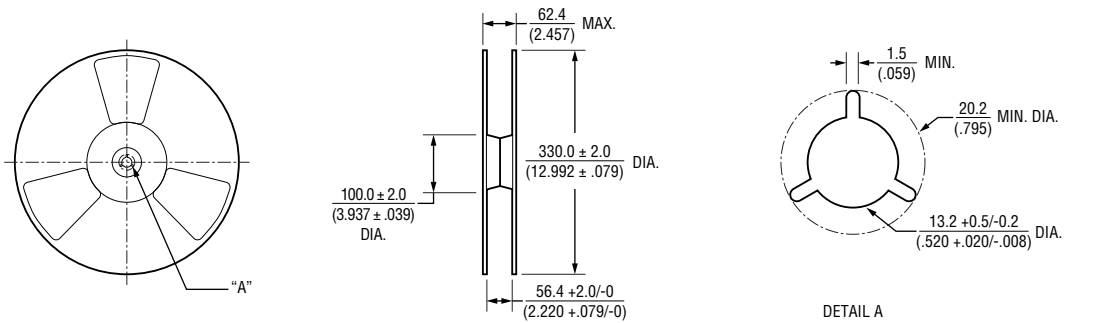
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SM91602L LAN Transformer

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Packaging Specifications

Specifications and tolerances comply with EIA-481 requirements.



USER DIRECTION OF FEED
 QTY: 200 PCS. PER REEL

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

BOURNS®

Asia-Pacific: Tel: +886-2 2562-4117 • Email: asiacus@bourns.com

EMEA: Tel: +36 88 885 877 • Email: eurocus@bourns.com

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

www.bourns.com

REV. 07/23

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