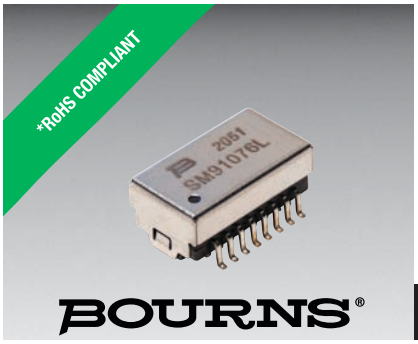


BOURNS®

Features

- IEEE 802.3u (100Base-T) compliant
- MECHATROLINK-III compliant
- Hi-Pot: 2250 VDC or 1500 VAC
- Additional metal shield for surge immunity and superior EMC performance
- Compliant to IEC 61000-4-5 surge immunity test level 3 (2000 V)
- RoHS compliant*

SM91076L - 10/100 Base-T Transformer

Electrical Specifications @ 25 °C

OCL (-40 ~ +125 °C)
..... 350 μH min @ 100 kHz, 0.1 V, 8 mA DC bias
Leakage Inductance
..... 0.5 μH max. @ 100 kHz, 0.1 V
DCR
Transformer Side ..... 1.0 Ω max.
CM Choke Side ..... 1.4 Ω max.
Cww (TCT to CMT, RCT to CMT)
..... 20 pF max.
Turns Ratio ..... 1:1 ± 2 %
Insertion Loss
1~100 MHz..... -1.4 dB max.
Return Loss (Z out = 100 Ω)
1~40 MHz..... -16 dB min.
40~100 MHz
..... -10+20*log (f/80 MHz) dB min.
Cross Talk (between each channel)
1~60 MHz..... -40 dB min.
60~100 MHz..... -35 dB min.
Common Mode Rejection Ratio
1~60 MHz..... -37 dB min.
60~100 MHz..... -30 dB min.
Differential to Common Mode Rejection Ratio
30 MHz..... -35 dB min.
60 MHz..... -35 dB min.
Hi-Pot (1 mA, 60 s)
..... 2250 VDC or 1500 VAC
Operating Temperature
..... -40 °C to +125 °C
Storage Temperature
..... -40 °C to +125 °C
Moisture Sensitivity Level 1
ESD Classification (HBM)..... N/A

Packaging Specifications

Tape & Reel..... 500 pcs./reel

How To Order

SM91076 L - E

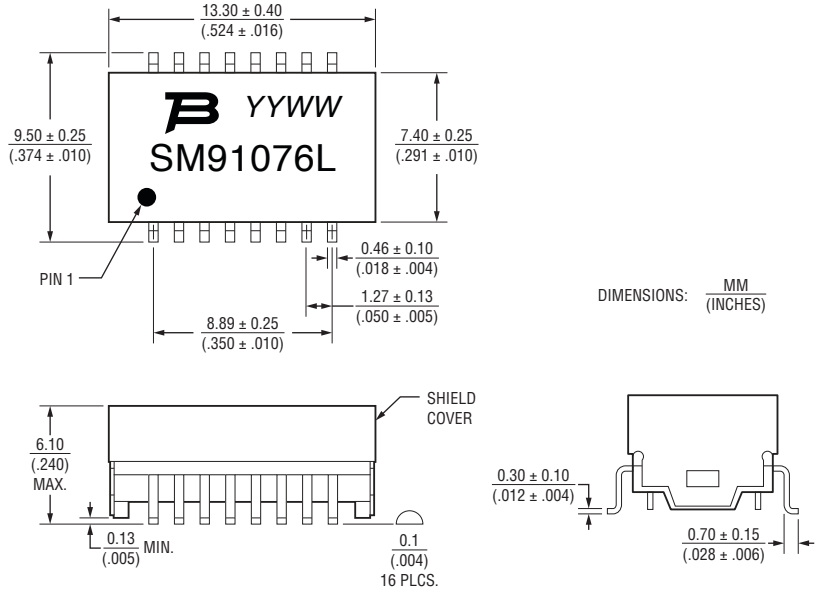
Model
Termination
L = Tin (RoHS Compliant)
Packaging
E = Tape and Reel

Additional Information

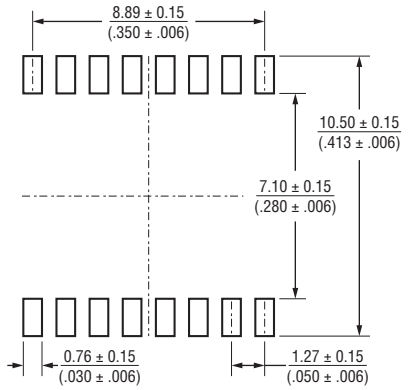
Click these links for more information:

PRODUCT | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

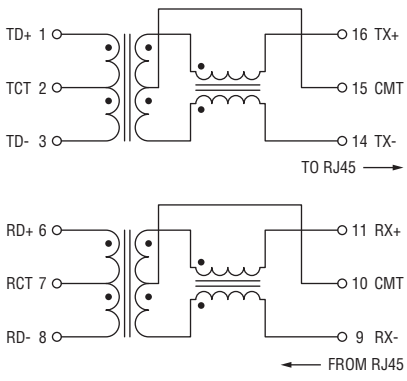
Product Dimensions



Recommended Layout



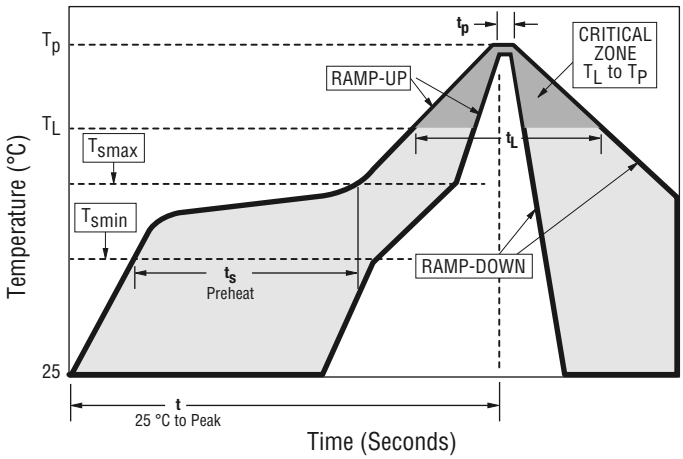
Electric Schematic



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

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
**MMA is a group of product developers and users promoting the use of the open field network MECHATROLINK.
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Solder Profile

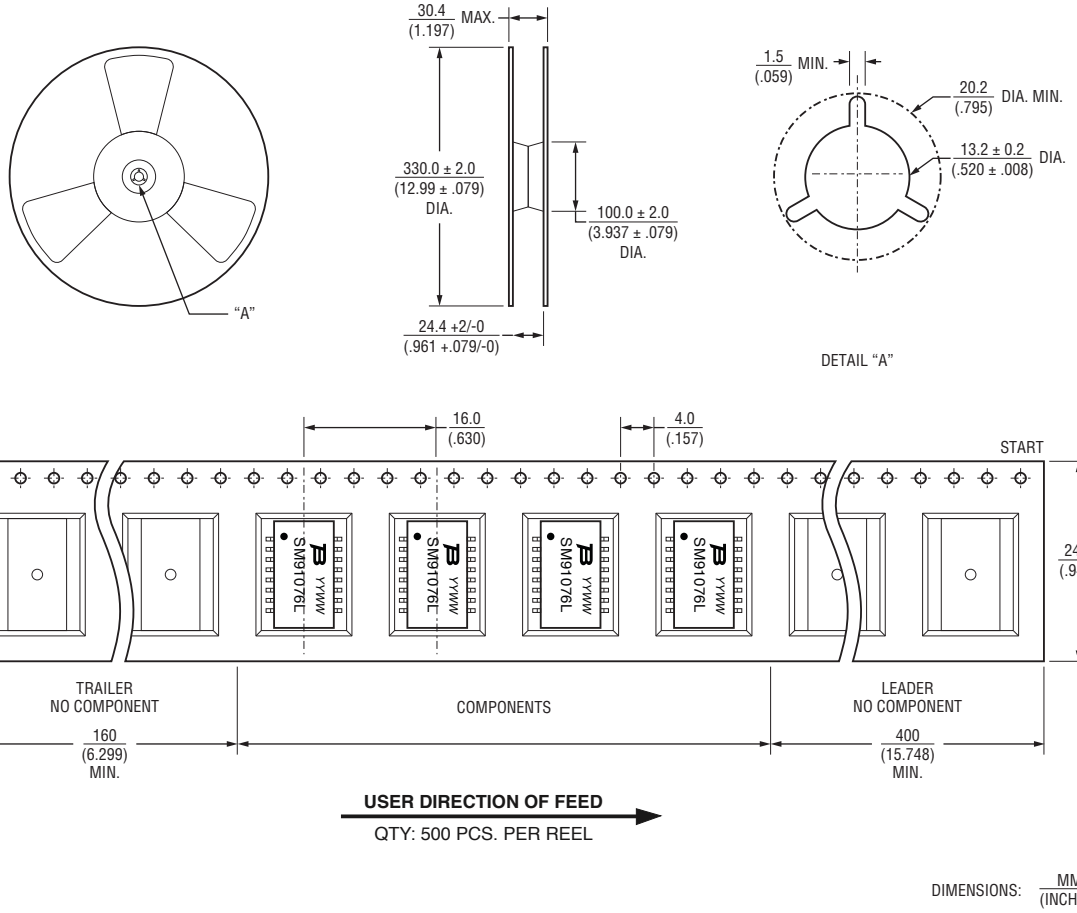


Reflow Condition		Pb-free Assembly
Average Ramp-up Rate		3 °C / second max.
Preheat	Temperature Min. (T_{smin})	150 °C
	Temperature Max. (T_{smax})	200 °C
	Time (T_{smin} to T_{smax})	60 ~ 180 seconds
Liquidus Temperature (T_L)		217 °C
Time above Liquidus Temperature (t_L)		60 ~ 150 seconds
Peak Temperature (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 from 25 °C to Peak Temperature (T_p)		8 minutes max.
Do not Exceed		260 ° C

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Packaging Specifications

Specifications and tolerances comply with EIA-481 requirements.



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08/21

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