



Features

- Fully automated with overmolding process
- High isolation reliability in a compact size
- Working voltage up to 1000 VDC
- Hi-Pot: 4000 VAC, 1 mA, 60 s
- Design construction: Reinforced insulation between primary and secondary per IEC 60664-1 & IEC 62368-1
- Creepage distance >10.0 mm, pollution degree 2, material group CTI I
- Clearance distance >10.0 mm, overvoltage category II
- AEC-Q200 compliant
- RoHS compliant*

SM91872AL BMS Transformer

Additional Information

Click these links for more information:



Electrical Specifications @ 25 °C

OCL (100 kHz / 0.1 V) (-40 °C to +125 °C).....	150~450 μH
Leakage Inductance (100 kHz / 0.1 V)	1.0 μH max.
DCR	
Pri. and Sec. Side	0.9 Ω max.
Turns Ratio	1 : 1 ± 2 %
Insertion Loss	
4 MHz.....	-0.25 dB max.
Return Loss (Z out = 100 Ω)	
4 MHz.....	-16 dB min.
Hi-Pot (1 mA, 60 S)	4000 VAC
Working Voltage	1000 VDC
Impulse Test	8000 V 1.2/50 μs.
Operating Temperature	
.....	-40 °C to +125 °C
Storage Temperature (Component)	
.....	-25 °C to +85 °C
Moisture Sensitivity Level	1
ESD Classification (HBM).....	N/A

Packaging Specification

Tape & Reel..... 400 pcs. per 13-inch reel

BOURNS®

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

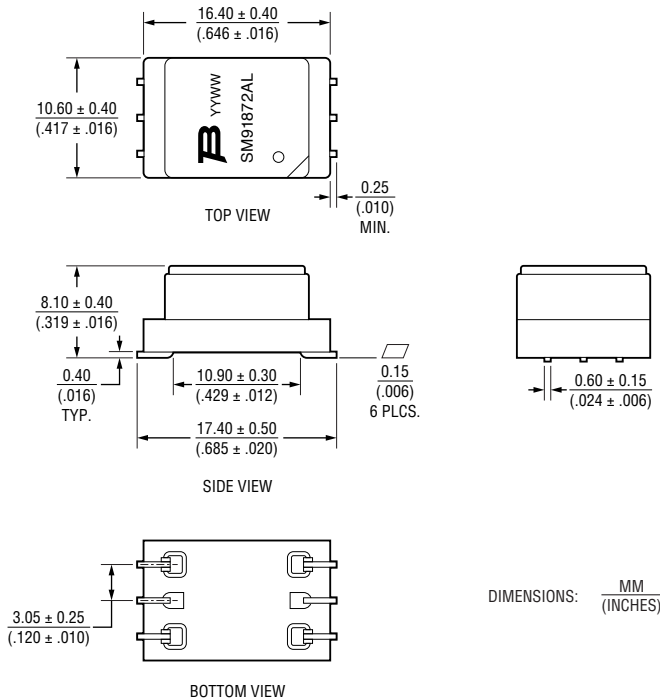
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Email: mexicus@bourns.com

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

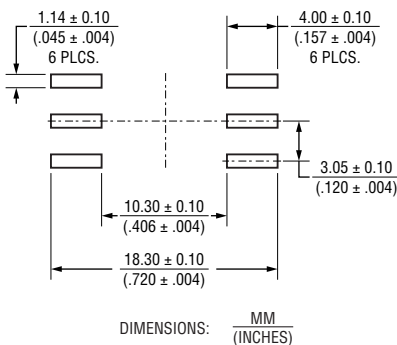
EMEA: Tel: +36 88 885 877
Email: eurocus@bourns.com

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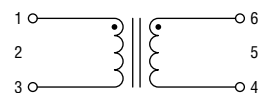
Product Dimensions



Recommended Layout



Electric Schematic



How To Order

Model **SM91872 A L - E**

AEC-Q200 Compliancy Designator

Termination L = Tin (RoHS Compliant)

Packaging E = 400 pcs. per 13-inch Reel



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.

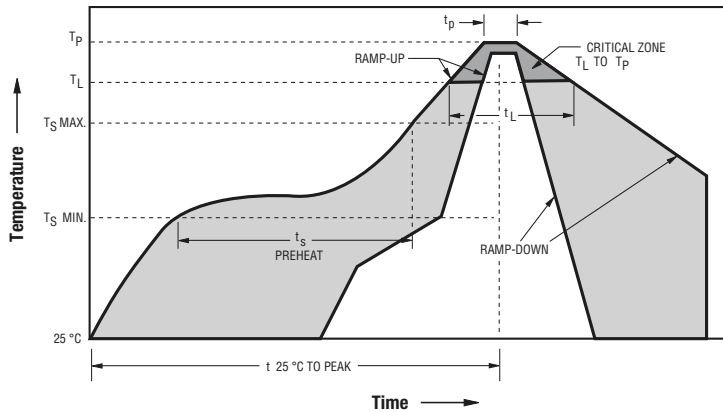
Users should verify actual device performance in their specific applications.

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SM91872AL BMS Transformer



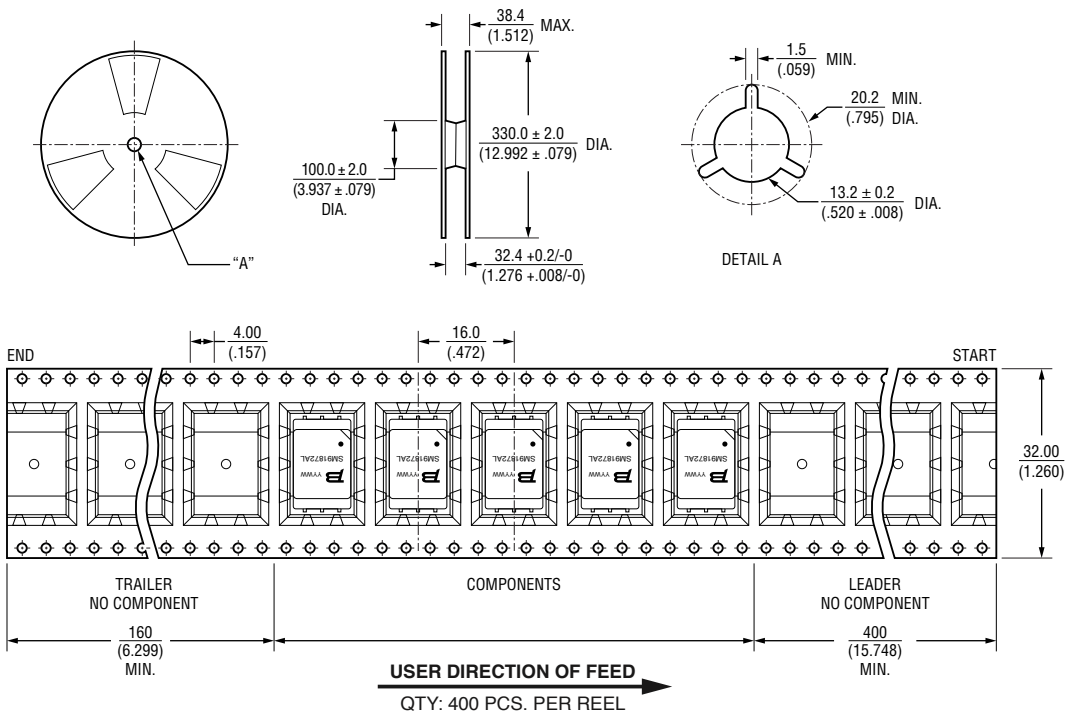
Solder Profile



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

Packaging Specifications

Specifications and tolerances comply with EIA-481 requirements.



REV. 08/08/24

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