



## Features

- Working voltage up to 1000 VDC
- Hi-Pot: 3000 VAC
- Developed for use with the NXP Model 33771C and Analog Device's Model LTC6804/681X
- Design construction per GB/T 16935.1, IEC 60664-1 & IEC 62368-1
- Creepage distance 10 mm minimum, pollution degree 2, material group CTI I
- Clearance distance 10 mm minimum, Overvoltage Category II, up to 5000 m above sea level
- AEC-Q200 compliant
- RoHS compliant\*

## SM91536AL BMS Transformer

### Additional Information

Click these links for more information:



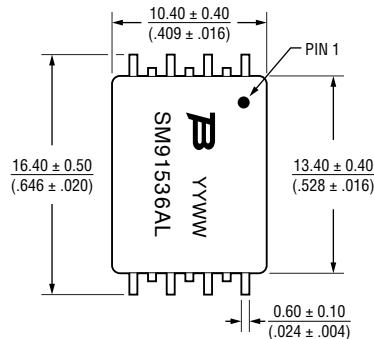
### Electrical Specifications @ 25 °C

OCL (100 kHz / 0.1 V)  
(-40 °C to +125 °C) ..... 150-450  $\mu$ H  
Leakage Inductance (100 kHz/0.1 V)  
..... 1.0  $\mu$ H max.  
DCR  
Transformer Side ..... 0.45  $\Omega$  max.  
Turns Ratio ..... 1 : 1  $\pm$  2 %  
Insertion Loss  
4 MHz ..... -0.30 dB max.  
Return Loss (Z out = 100  $\Omega$ )  
4 MHz ..... -20 dB min.  
Hi-pot (1 mA, 60 S) ..... 3000 VAC  
Working Voltage ..... up to 1000 VDC  
System Voltage ..... up to 600 VAC  
Operating Temperature  
..... -40 °C to +125 °C  
Storage Temperature (Component)  
..... -50 °C to +125 °C  
Moisture Sensitivity Level ..... 1  
ESD Classification (HBM) ..... N/A

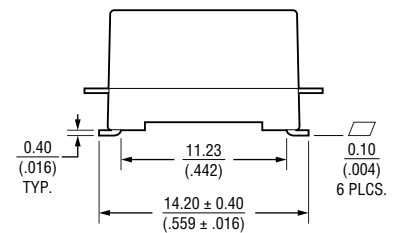
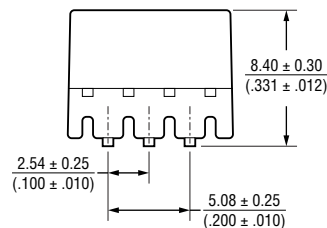
### Packaging Specification

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

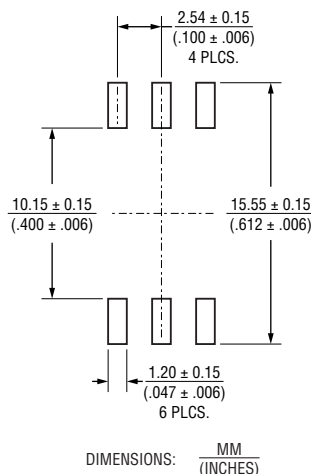
### Product Dimensions



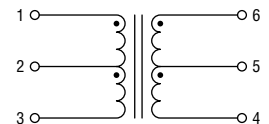
DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$



### Recommended Layout



### Electric Schematic



### How To Order

Model **SM91536 A L - E**  
AEC-Q200 Compliant \_\_\_\_\_  
Termination \_\_\_\_\_  
L = Tin (RoHS Compliant)  
Packaging \_\_\_\_\_  
E = Tape and Reel



**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

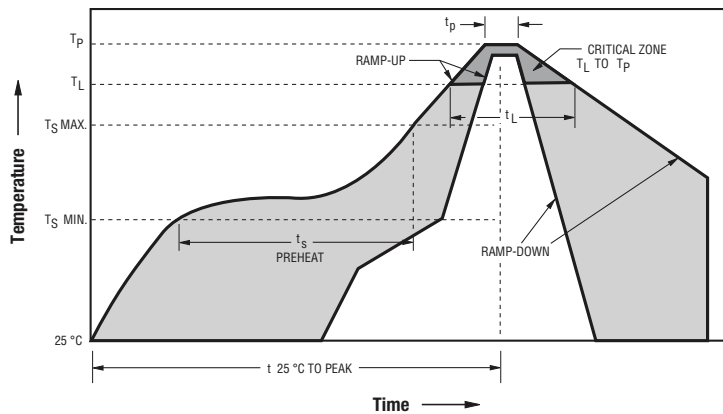
\*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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## Solder Profile



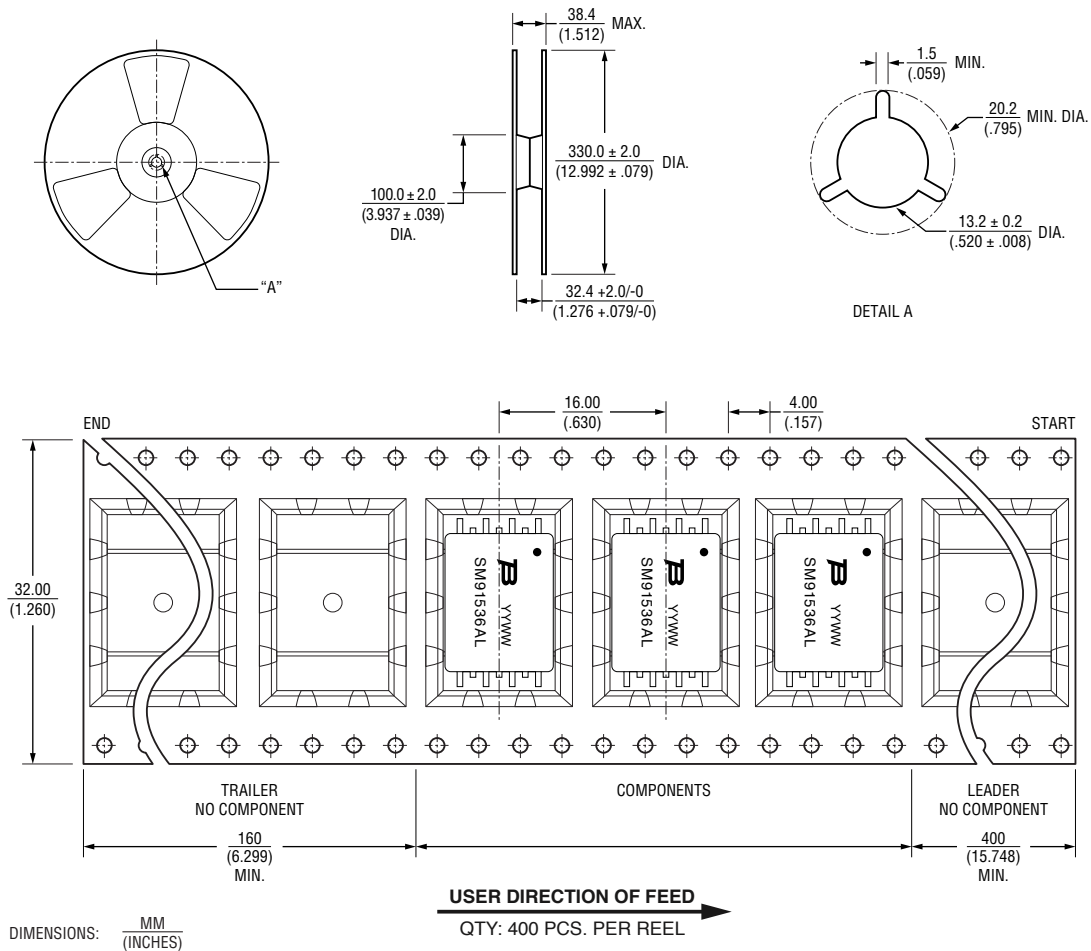
Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate	3 °C / second max.
PREHEAT: Temperature Min. ( $T_{smin}$ ) Temperature Max. ( $T_{smax}$ ) Time ( $T_{smin}$ to $T_{smax}$ )	150 °C 200 °C 60~180 seconds
Liquidus Temperature ( $T_L$ )	217 °C
Time Above Liquidus Temperature ( $t_L$ )	60~150 seconds
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

# SM91536AL BMS Transformer

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## Packaging Specifications

Specifications and tolerances comply with EIA-481 requirements.



**BOURNS®**

Asia-Pacific: Tel: +886-2 2562-4117 • Email: [asiacus@bourns.com](mailto:asiacus@bourns.com)

EMEA: Tel: +36 88 885 877 • Email: [eurocus@bourns.com](mailto:eurocus@bourns.com)

The Americas: Tel: +1-951 781-5500 • Email: [americus@bourns.com](mailto:americus@bourns.com)

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