



## 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: Reinforced insulation per GB/T 16935.1, IEC 60664-1 & IEC 62368-1 requirements
- Creepage distance 10 mm minimum, pollution degree 2, material group CT1 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:



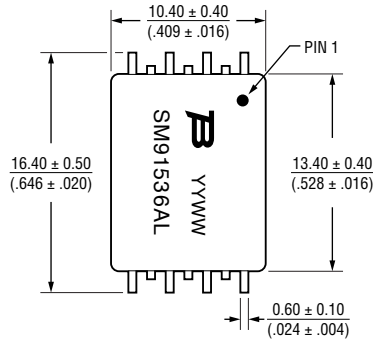
### Electrical Specifications @ 25 °C

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

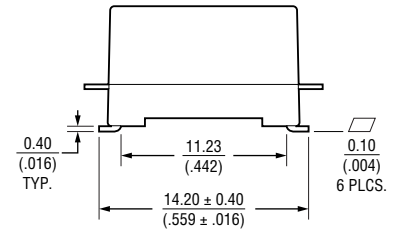
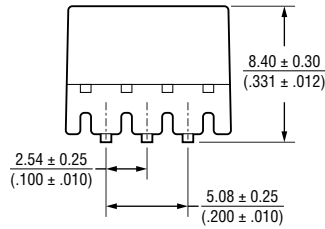
### Packaging Specification

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

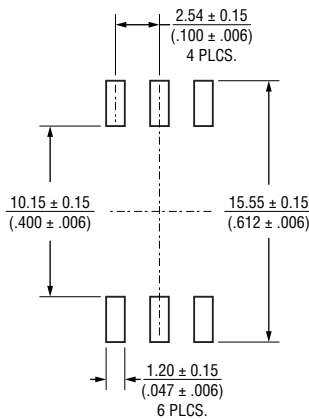
### Product Dimensions



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

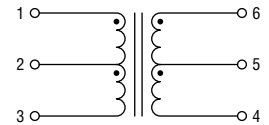


### Recommended Layout



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

### Electric Schematic



### How To Order

**SM91536 A L - E**  
 Model \_\_\_\_\_  
 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)**

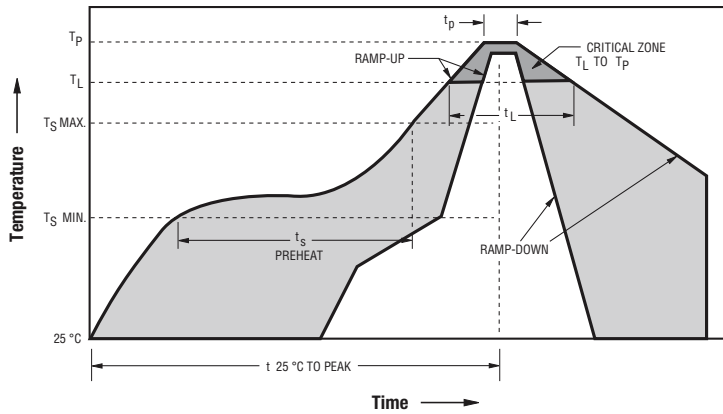
\*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

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

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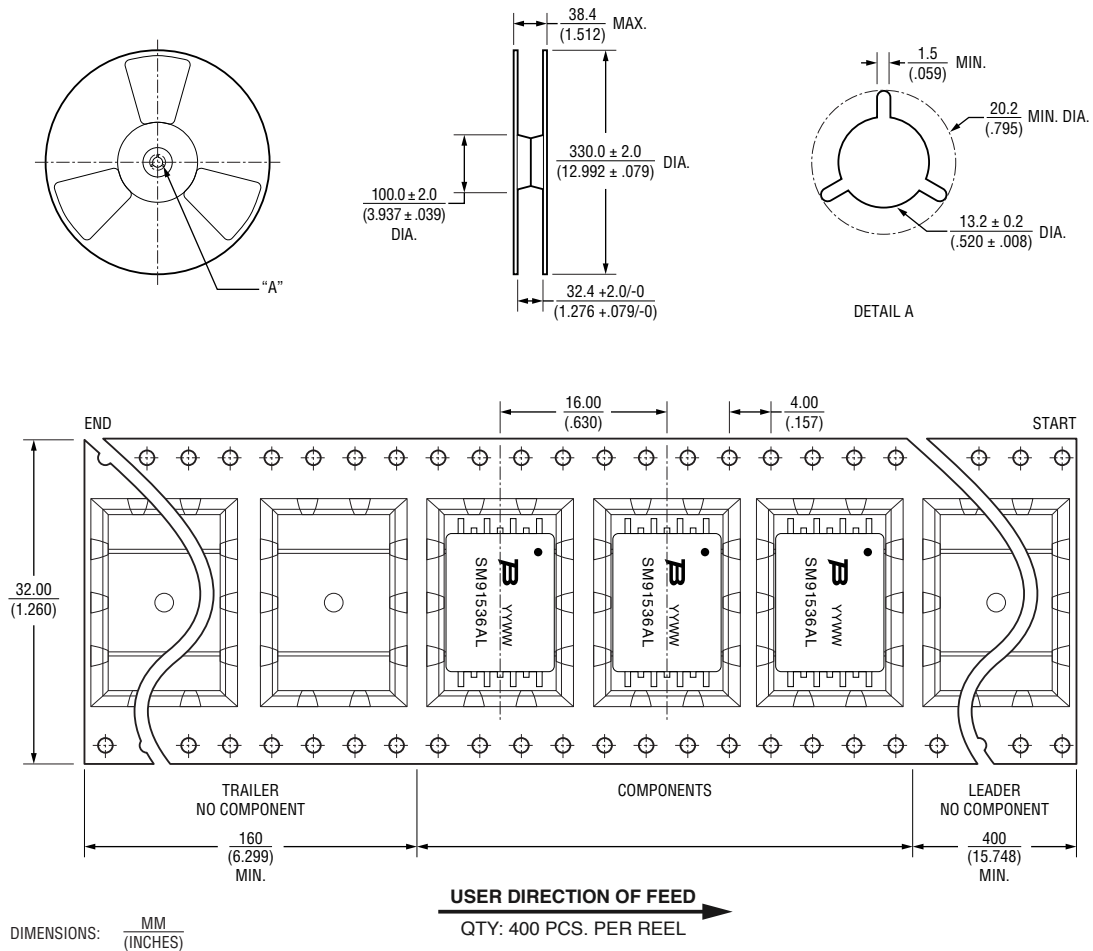
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# SM91536AL BMS Transformer

**BOURNS®**

## Packaging Specifications

Specifications and tolerances comply with EIA-481 requirements.



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