

## Features

- Superior quality from full automation of key processes
- 1000 Vdc working voltage and Hi-Pot: 4300 Vdc
- Supports serial daisy chain/IsoSPI communication
- Expanded operating temperature range: -40 to +125 °C
- AEC-Q200 and RoHS compliant\*

## SM91514AL BMS Transformer

### Electrical Specifications @ 25 °C

OCL (-40 ~ +125 °C)	.....300 $\mu$ H min. @ 100 kHz, 0.1 V
Leakage Inductance	.....0.5 $\mu$ H max. @ 100 kHz, 0.1 V
DCR	
Transformer Side	.....0.60 $\Omega$ max.
CM Choke Side	.....1.20 $\Omega$ 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.
Common Mode Rejection Ratio	
1~100 MHz	.....-35 dB min.
100-200 MHz	.....-20 dB min.
Hi-Pot (1 mA, 60 s)	.....4300 VDC
Working Voltage	.....1000 VDC
Operating Temperature	.....-40 °C to +125 °C
Storage Temperature	.....-50 °C to +125 °C
Moisture Sensitivity Level	.....1
ESD Classification (HBM)	.....N/A

### Packaging Specifications

Tape & Reel ..... 800 pcs./reel

### How To Order

Model	<b>SM91514 A L - E</b>
Compliance	A = AEC-Q200 Compliant
Termination	L = Tin (RoHS Compliant)
Packaging	E = Tape and Reel

### Additional Information

Click these links for more information:



PRODUCT



TECHNICAL LIBRARY



INVENTORY

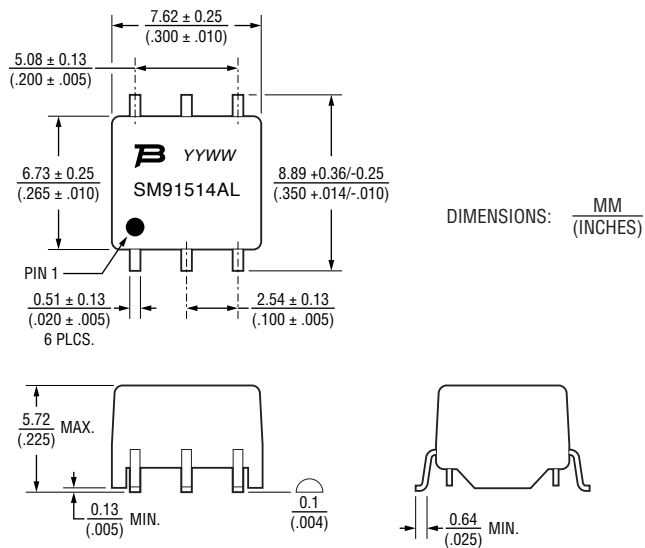


SAMPLES

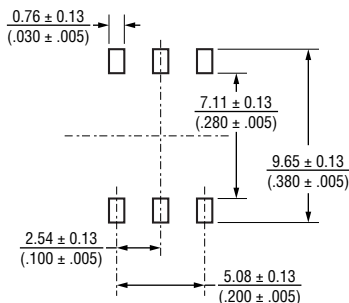


CONTACT

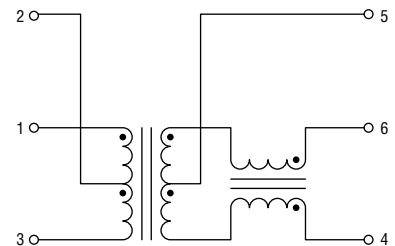
### Product Dimensions



### Recommended Layout



### Electrical Schematic



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

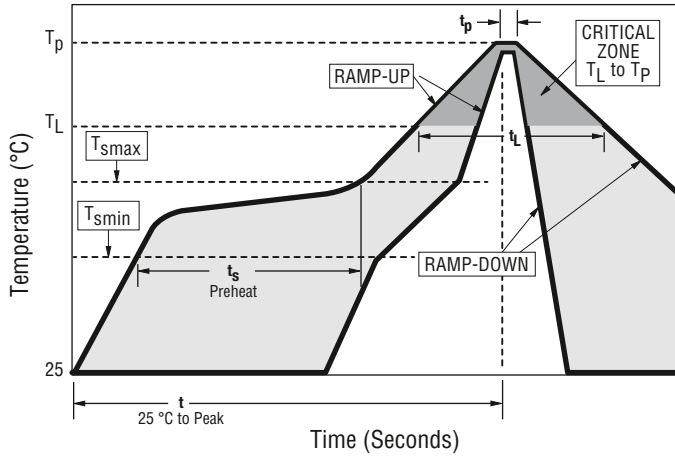
\*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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**Solder Profile**



Reflow Condition		Pb-free Assembly
Average Ramp-up Rate		3 °C / second max.
Preheat	Temperature Min. (T <sub>smin</sub> )	150 °C
	Temperature Max. (T <sub>smax</sub> )	200 °C
	Time (T <sub>smin</sub> to T <sub>smax</sub> )	60 ~ 180 seconds
Liquidus Temperature (T <sub>L</sub> )		217 °C
Time above Liquidus Temperature (t <sub>L</sub> )		60 ~ 150 seconds
Peak Temperature (T <sub>p</sub> )		245 - 250 °C
Time within 5 °C of Actual Peak Temperature (T <sub>p</sub> )		20 ~ 40 seconds
Ramp-down Rate from Peak Temperature		6 °C / second max.
Time from 25 °C to Peak Temperature (T <sub>p</sub> )		8 minutes max.
Do not Exceed		260 °C

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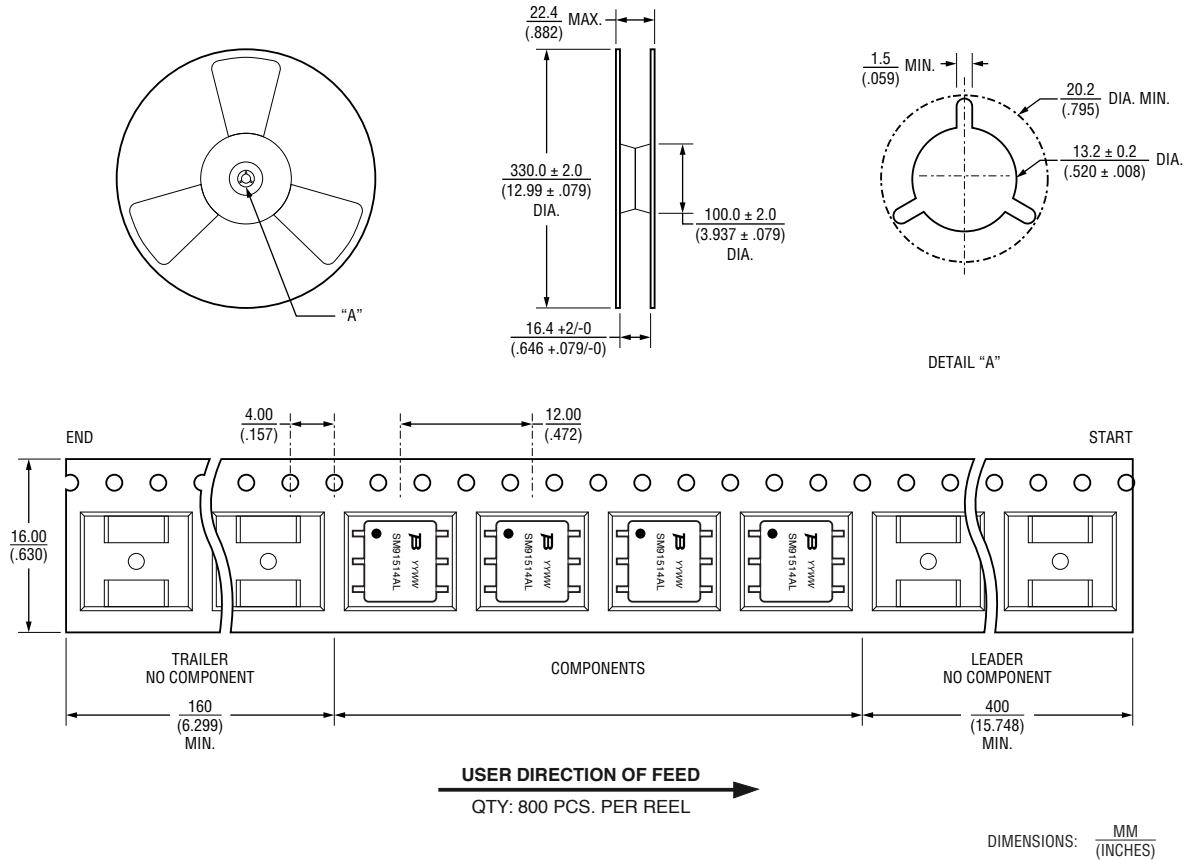
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# SM91514AL BMS Transformer

**BOURNS®**

## Packaging Specifications

Specifications and tolerances comply with EIA-481 requirements.



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