



### Features

- Operating temperature: -40 to +150 °C
- High frequency integrated choke
- Hi-Pot: 3000 Vrms
- RoHS compliant\*
- AEC-Q200 compliant

## SM91508AL BMS Signal Transformer

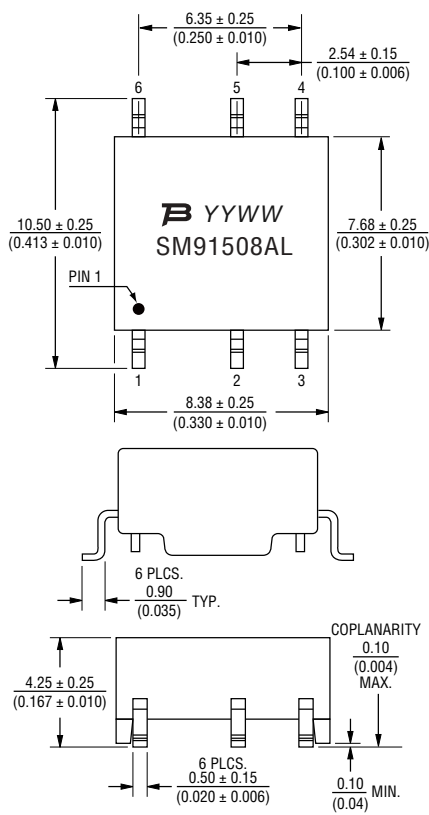
### Electrical Specifications @ 25 °C

OCL  
 (100 kHz, 0.1 V, (-40 °C ~ +150 °C))  
 ..... 300  $\mu$ H min.  
 Leakage Inductance (100 kHz, 0.1 V)  
 ..... 0.5  $\mu$ H max.  
 DCR  
 Transformer Side ..... 0.8  $\Omega$  max.  
 CM Choke Side ..... 1.0  $\Omega$  max.  
 Turns Ratio ..... 1:1  $\pm$ 2 %  
 Insertion Loss  
 1-80 MHz ..... -1.0 dB max.  
 125 MHz ..... -3.0 dB max.  
 Return Loss (Z out = 100  $\Omega$ )  
 1-30 MHz ..... -16 dB min.  
 30-60 MHz ..... -12 dB min.  
 60-80 MHz ..... -10 dB min.  
 Hi-Pot (1 mA, 60 sec.) ..... 3000 Vrms  
 Working Voltage ..... 1000 Vdc  
 Operating Temperature ..... -40 to +150 °C  
 Storage Temperature ..... -50 to +150 °C  
 Moisture Sensitivity Level ..... 1  
 ESD Classification (HBM) ..... N/A

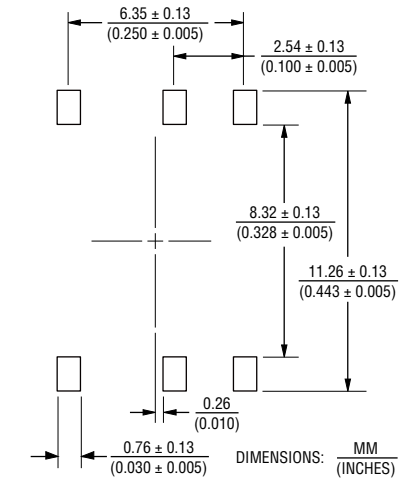
### Packaging Specifications

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

### Product Dimensions



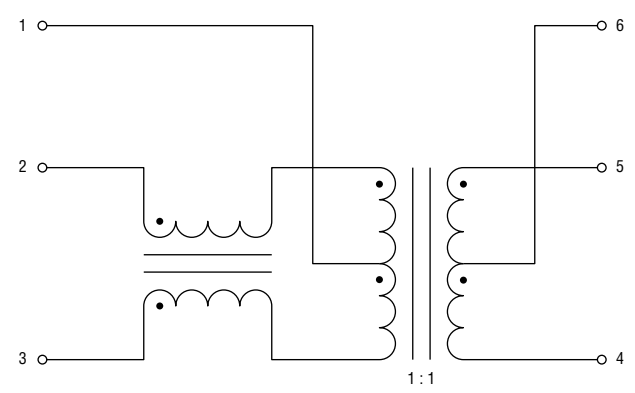
### Recommended Layout



### How To Order

Model **SM91508 A L - E**  
 AEC-Q200 Compliant \_\_\_\_\_  
 Termination \_\_\_\_\_  
 L = RoHS Compliant \_\_\_\_\_  
 Packaging \_\_\_\_\_  
 E = Tape and Reel (800 pcs. per reel)

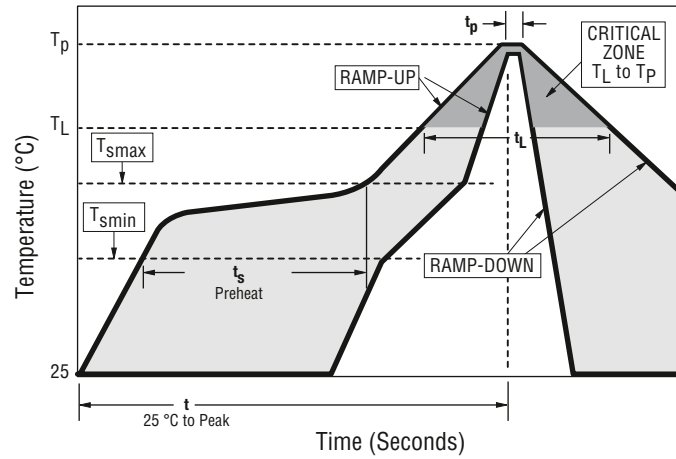
### Electrical Schematic



**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



Profile Features	Pb Free Assembly
Average Ramp-up Rate	3 °C/second max.
Preheat	
Temperature min. (T <sub>S</sub> min)	150 °C
Temperature max. (T <sub>S</sub> max)	200 °C
Time (t <sub>S</sub> min. to t <sub>S</sub> max.)	60 ~ 180 s
Liquidus Temperature: T <sub>L</sub>	217 °C
Time above Liquidus Temperature: t <sub>L</sub>	60 ~ 150 s
Peak Temperature: T <sub>P</sub>	245-250 °C
Time within 5 °C of Actual Peak Temperature: t <sub>p</sub>	20 ~ 40 s
Ramp-down Rate from Peak Temperature	6 °C/s max.
Time 25 °C to Peak: t <sub>TO PEAK</sub>	8 minutes max.

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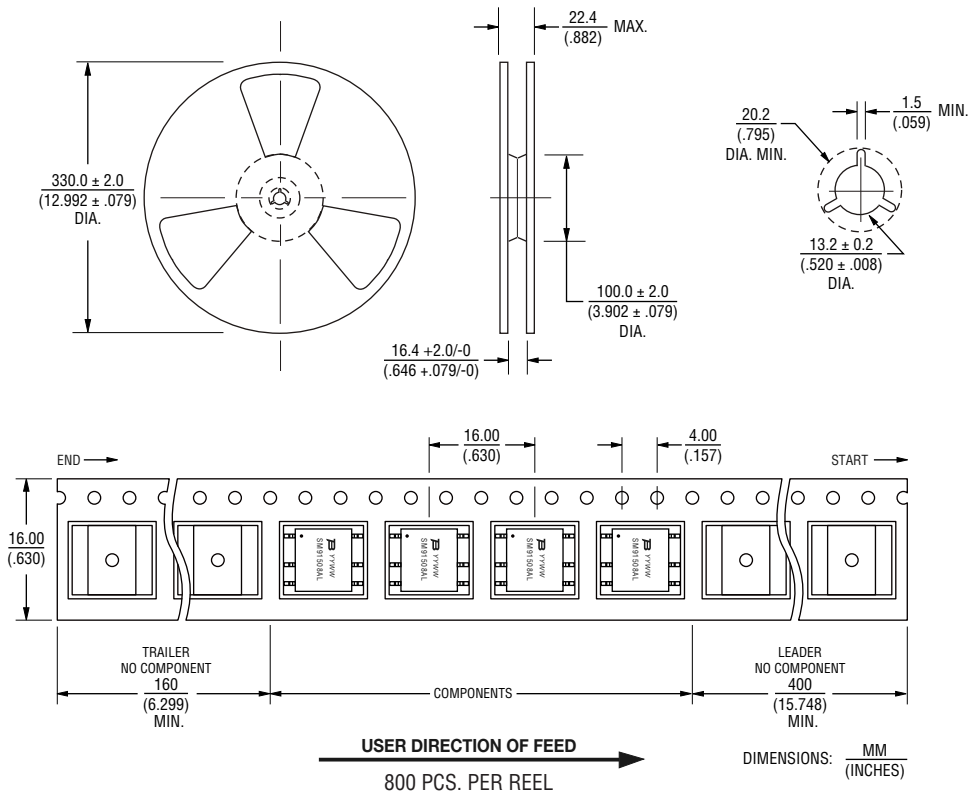
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# SM91508AL BMS Signal Transformer

**BOURNS®**

## Packaging Specifications

Specifications and tolerances comply with EIA-481 requirements.



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