

### 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 μH min.  
 Leakage Inductance (100 kHz, 0.1 V)  
 ..... 0.5 μH max.

DCR  
 Transformer Side ..... 0.8 Ω max.  
 CM Choke Side ..... 1.0 Ω max.

Turns Ratio ..... 1:1 ±2 %

Insertion Loss  
 1-80 MHz ..... -1.0 dB max.  
 125 MHz ..... -3.0 dB max.

Return Loss (Z out = 100 Ω)  
 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

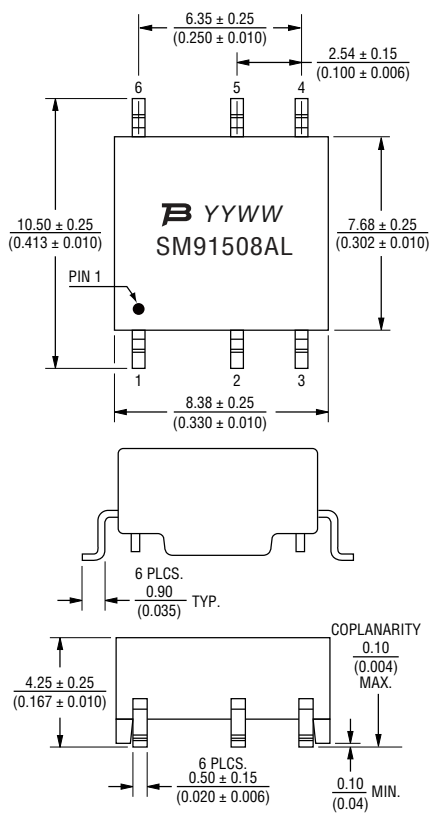
Moisture Sensitivity Level ..... 1

ESD Classification (HBM) ..... N/A

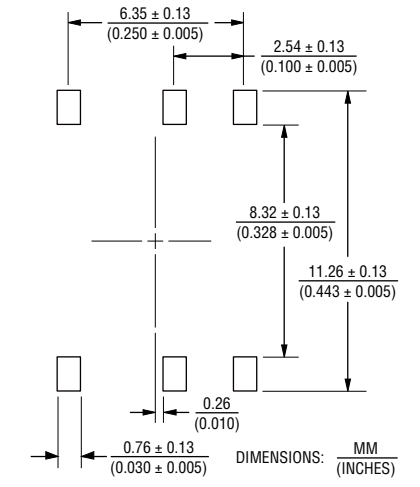
### Packaging Specifications

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

### Product Dimensions



### Recommended Layout



### How To Order

Model **SM91508 A L - E**

AEC-Q200 Compliant \_\_\_\_\_

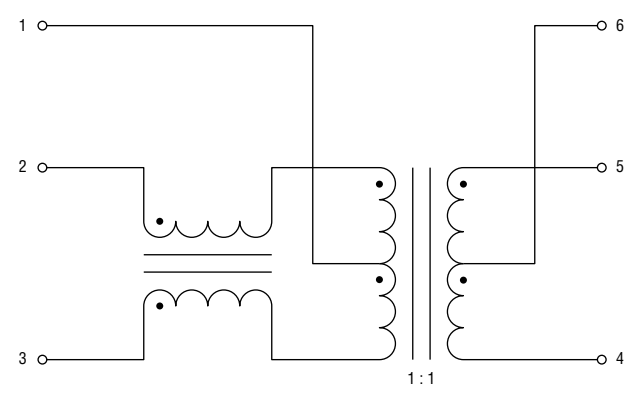
Termination \_\_\_\_\_

L = RoHS Compliant

Packaging \_\_\_\_\_

E = Tape and Reel (800 pcs. per reel)

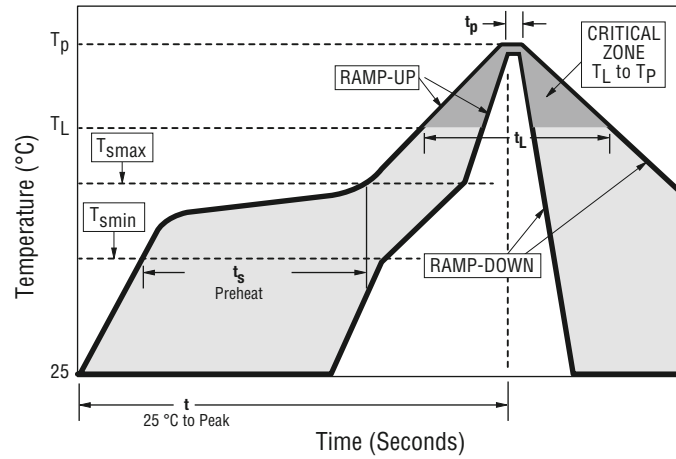
### Electrical Schematic



**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. ( $T_s$ min)	150 °C
Temperature max. ( $T_s$ max)	200 °C
Time ( $t_s$ min. to $t_s$ max.)	60 ~ 180 s
Liquidus Temperature: $T_L$	217 °C
Time above Liquidus Temperature: $t_L$	60 ~ 150 s
Peak Temperature: $T_p$	245-250 °C
Time within 5 °C of Actual Peak Temperature: $t_p$	20 ~ 40 s
Ramp-down Rate from Peak Temperature	6 °C/s max.
Time 25 °C to Peak: $t_{TO\ PEAK}$	8 minutes max.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

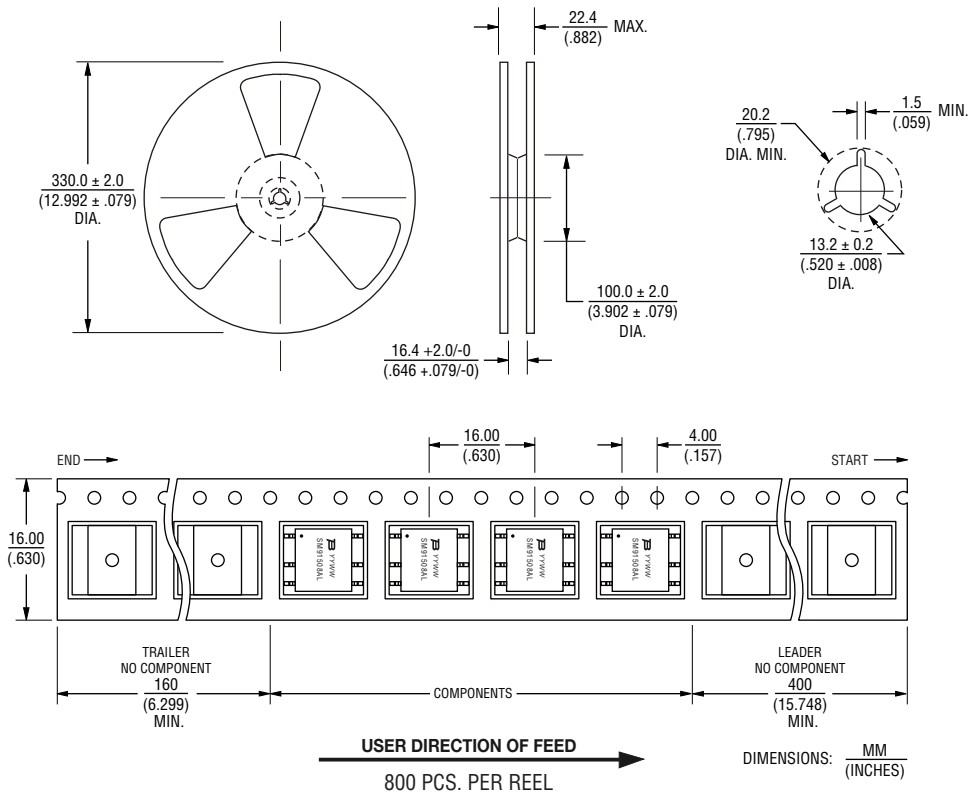
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# SM91508AL BMS Signal Transformer

**BOURNS®**

## Packaging Specifications

Specifications and tolerances comply with EIA-481 requirements.



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