

## Features

- Pin auto-termination
- Working voltage: 1000 VDC
- Hi-Pot: 3000 VAC, 1 mA, 60 sec.
- Single channel with integrated choke
- Developed for use with Analog Device's LTC6804-1/681X, NXP's MC33771/ 33772 and TI's BQ79616
- Functional insulation
- AEC-Q200 compliant
- RoHS compliant\*

## SM91574AL BMS Transformer

### Additional Information

Click these links for more information:



### Electrical Specifications @ 25 °C

Inductance (100 kHz / 0.1 V) (-40 °C to +125 °C).....	300 μH min.
Leakage Inductance (1-3) with (6-4) shorted:.....	0.5 μH max.
DCR	
1-3.....	0.6 Ω max.
4-6.....	1.2 Ω max.
C <sub>ww</sub>	
1-6.....	25 pF max.
Turns Ratio.....	1:1 ±2 %
Insertion Loss (1-3)-(6-4)	
4 MHz.....	-0.3 dB max.
Return Loss (1-3)-(6-4)	
4 MHz.....	-20 dB min.
HI-Pot (1 mA, 60 S).....	3000 VAC
Common mode rejection ratio (1-3)-(6-4):	
1~100 MHz.....	-35dB min.
100~200 MHz.....	-20dB min.
Operating Temperature Range:	
.....	-40 °C to +125 °C
Storage Temperature Range:	
.....	-25 °C to +85 °C
Moisture Sensitivity Level.....	1

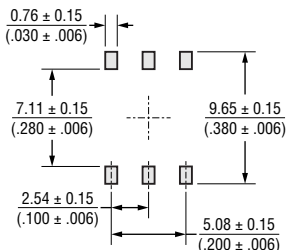
### Packaging Specification

Tape & Reel..... 800 pcs. per 13-inch reel

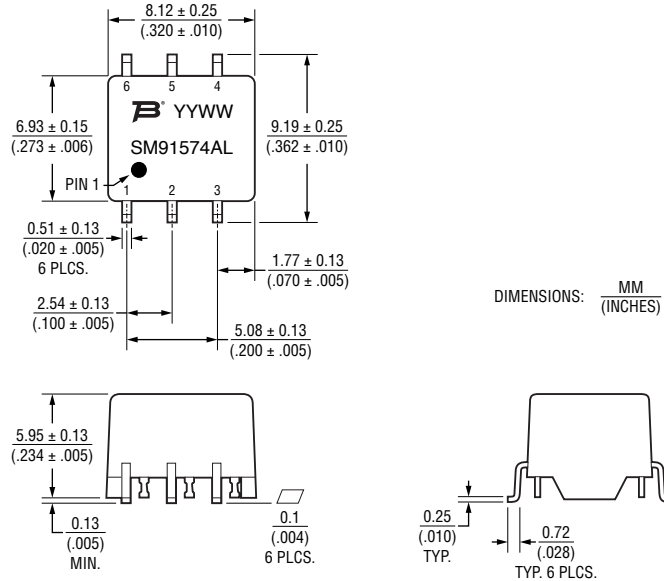
### How To Order

**SM91574 A L - E**  
 Model \_\_\_\_\_  
 AEC-Q200 Compliancy Designator \_\_\_\_\_  
 Termination \_\_\_\_\_  
   L = Tin (RoHS Compliant)  
 Packaging \_\_\_\_\_  
   E = Tape & Reel

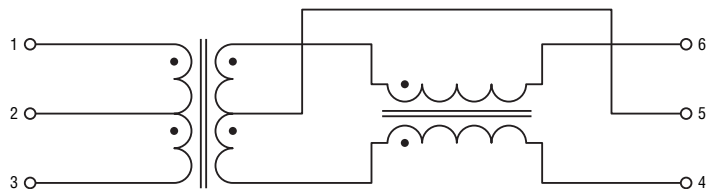
### Recommended Layout



### Product Dimensions



### Electric Schematic



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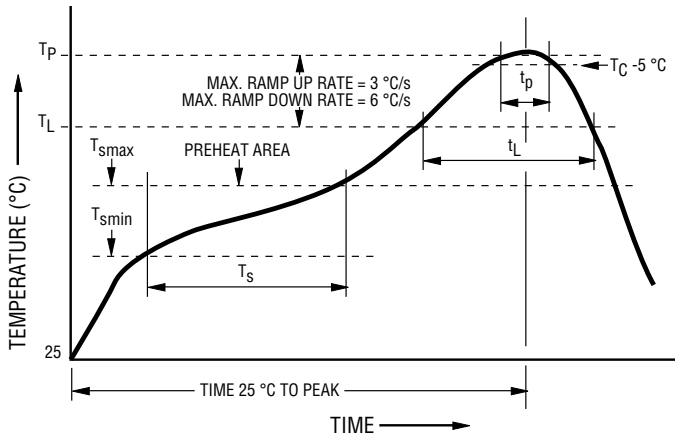
\*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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## Solder Reflow Recommendations



Profile Feature	Pb-Free Assembly
Preheat / Soak: Temperature Min. ( $T_{smin}$ ) Temperature Max. ( $T_{smax}$ ) Time ( $t_s$ ) from ( $T_{smin}$ to $T_{smax}$ )	150 °C 200 °C 60~120 seconds
Ramp Up Rate ( $T_L$ to $T_p$ )	3 °C / second max.
Liquidous Temperature ( $T_L$ ) Time ( $t_L$ ) maintained above $T_L$	217 °C 60~150 seconds
Peak Package Body Temperature ( $T_p$ )	$T_p \leq T_c$ (see table below)
Time ( $t_p$ )* within 5 °C of the specified classification temperature ( $T_c$ )	< 30 seconds*
Ramp Down Rate ( $T_p$ to $T_L$ )	6 °C / second max.
Time 25 °C to Peak Temperature	8 minutes max.

\*Tolerance for peak profile temperature ( $T_p$ ) is defined as a supplier minimum and a user maximum.

## Pb-Free Process Classification Temperatures ( $T_c$ )

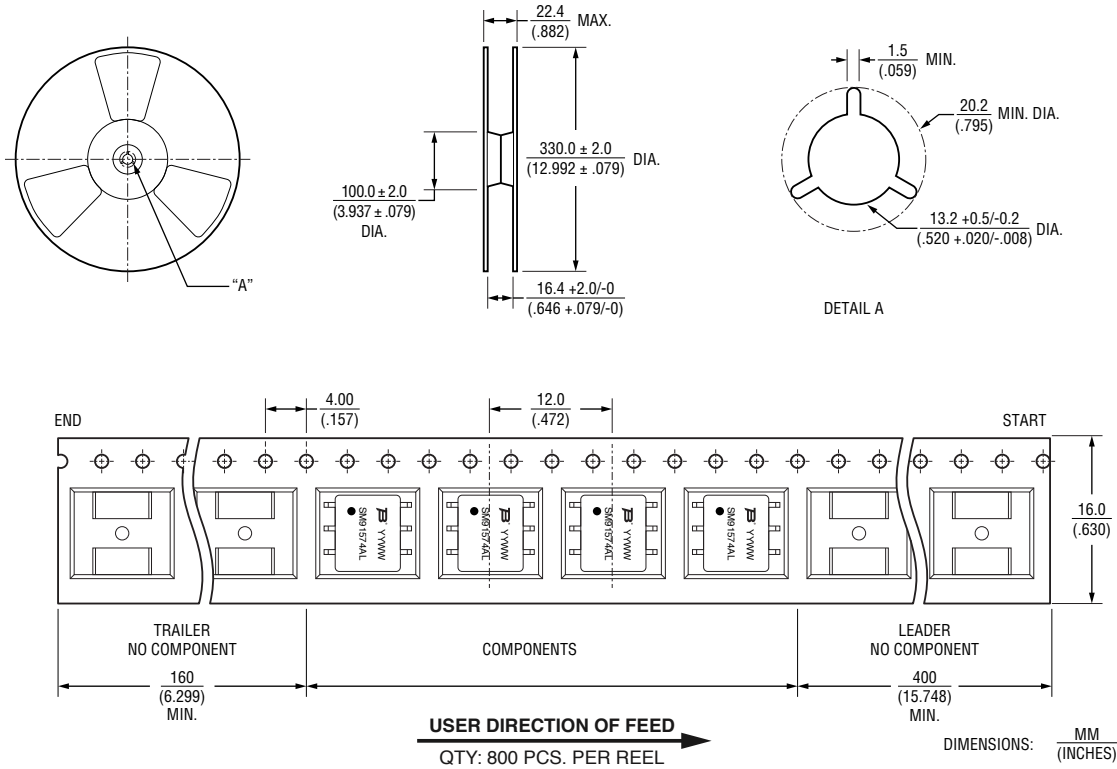
Package Thickness	Volume mm <sup>3</sup> < 350	Volume mm <sup>3</sup> 350 - 2000	Volume mm <sup>3</sup> > 2000
< 1.6 mm	260 °C	260 °C	260 °C
1.6 mm - 2.5 mm	260 °C	250 °C	245 °C
> 2.5 mm	250 °C	245 °C	245 °C

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## Packaging Specifications

Specifications and tolerances comply with EIA-481 requirements.



REV. 04/25

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