

Features

- Improved design for automation
- Working voltage: 1000 VDC
- Hi-Pot: 4300 VDC
- Single channel with integrated choke
- Functional insulation
- Developed for use with Analog Device's Model LTC6804/681X, NXP's Model MC3377X and Texas Instruments Model BQ79616
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

SM91542AL BMS Transformer

Additional Information

Click these links for more information:



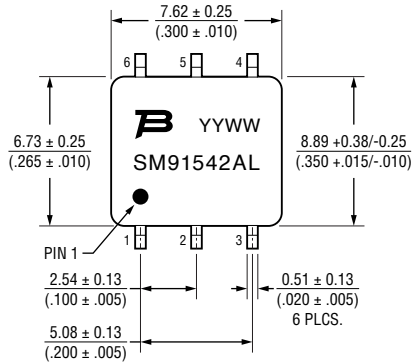
Electrical Specifications @ 25 °C

OCL (100 kHz / 0.1 V) (-40 °C to +125 °C)	150-450 μ H
Leakage Inductance (100 kHz / 0.1 V)	0.5 μ H max.
DCR	
Transformer Side	0.45 Ω max.
CM Choke Side	0.85 Ω max.
Cww	20 pF max.
Turns Ratio	1 : 1 \pm 2 %
Insertion Loss	
4 MHz	-0.25 dB max.
Return Loss (Z out = 100 Ω)	
4 MHz	-22 dB min.
CMRR	
1-100 MHz	-35 dB min.
100-200 MHz	-28 dB min.
Hi-pot (1 mA, 60 S)	4300 VDC
Working Voltage	1000 VDC
Operating Temperature	-40 °C to +125 °C
Storage Temperature (Component)	-25 °C to +85 °C
Moisture Sensitivity Level	1
ESD Classification (HBM)	N/A

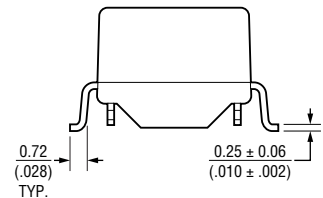
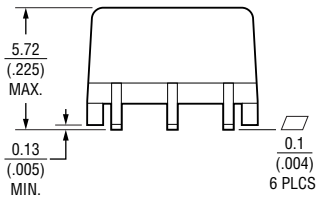
Packaging Specification

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

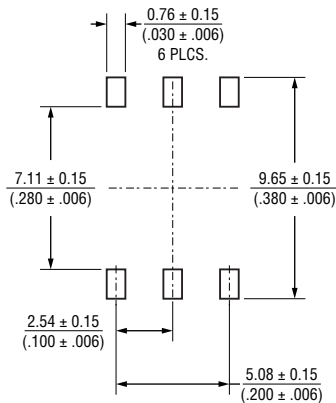
Product Dimensions



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

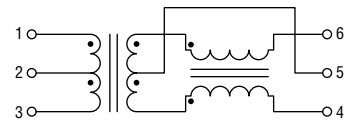


Recommended Layout



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

Electric Schematic



How To Order

SM91542 A L - E

Model _____

AEC-Q200 Compliancy Designator _____

Termination _____
L = Tin (RoHS Compliant)

Packaging _____
E = 800 pcs. per 13-inch Reel



WARNING
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

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

** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

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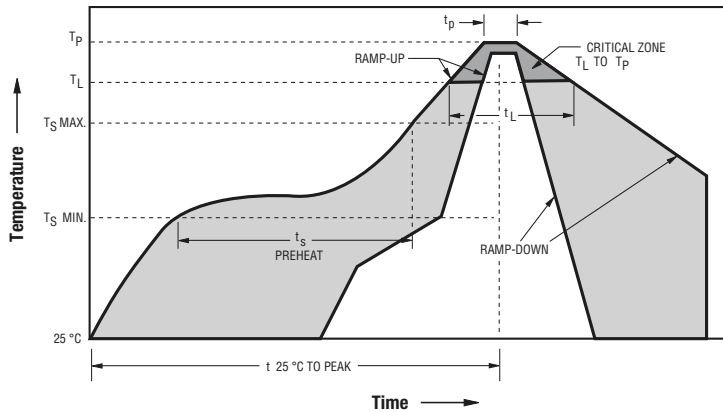
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SM91542AL BMS Transformer



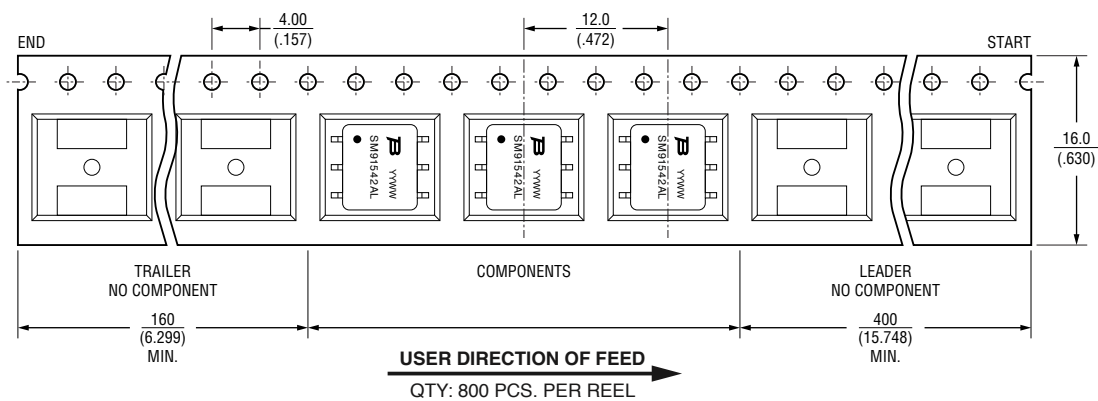
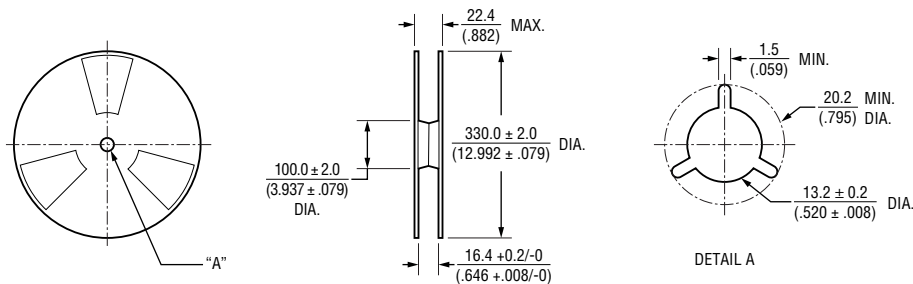
Solder Profile



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

Packaging Specifications

Specifications and tolerances comply with EIA-481 requirements.



REV. 05/25

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