

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 μH
Leakage Inductance (100 kHz / 0.1 V)	0.5 μH max.
DCR	
Transformer Side	0.45 Ω max.
CM Choke Side	0.85 Ω max.
Cww.....	20 pF max.
Turns Ratio	1 : 1 ± 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)	
.....	-50 °C to +125 °C
Moisture Sensitivity Level.....	1
ESD Classification (HBM).....	N/A

Packaging Specification

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

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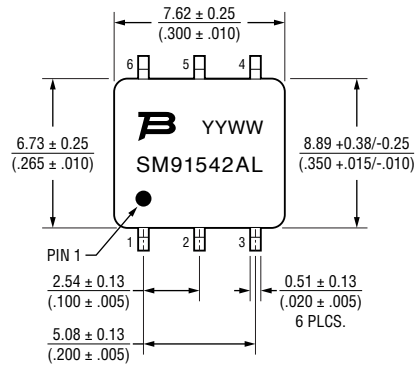
Email: euocus@bourns.com

The Americas: Tel: +1-951 781-5500

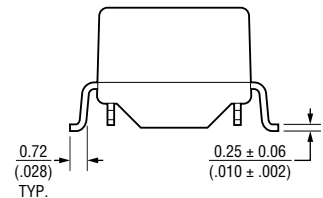
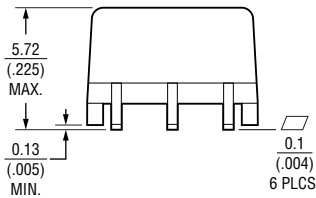
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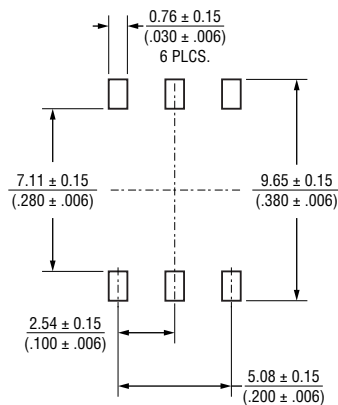
Product Dimensions



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

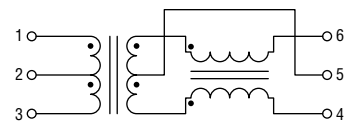


Recommended Layout



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.

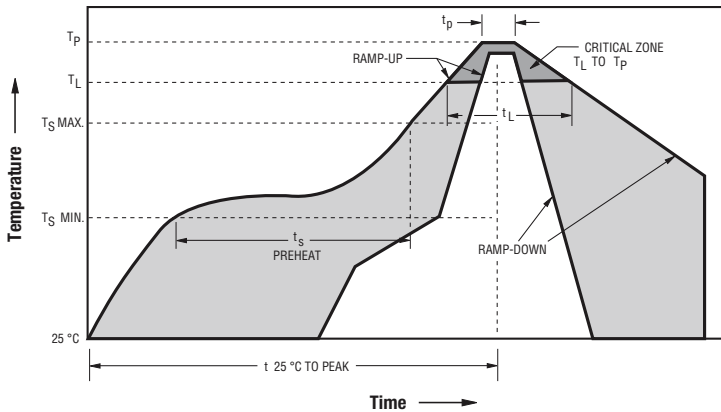
** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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SM91542AL BMS Transformer



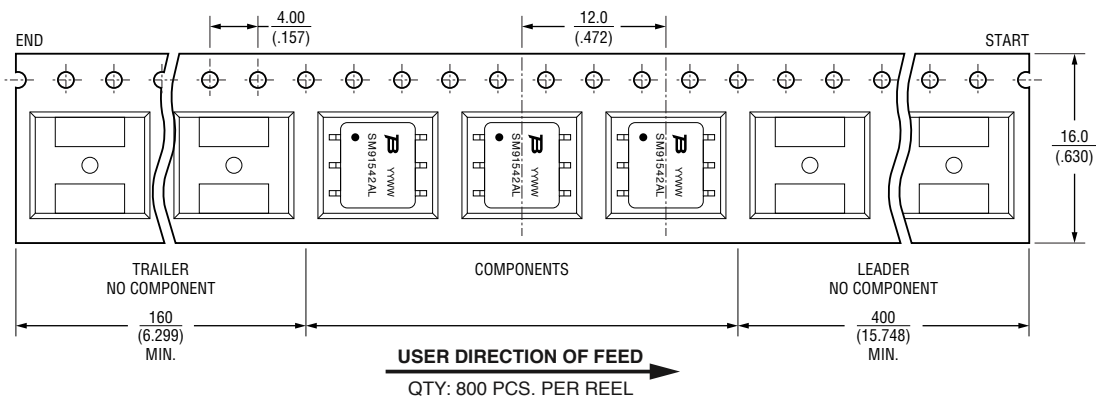
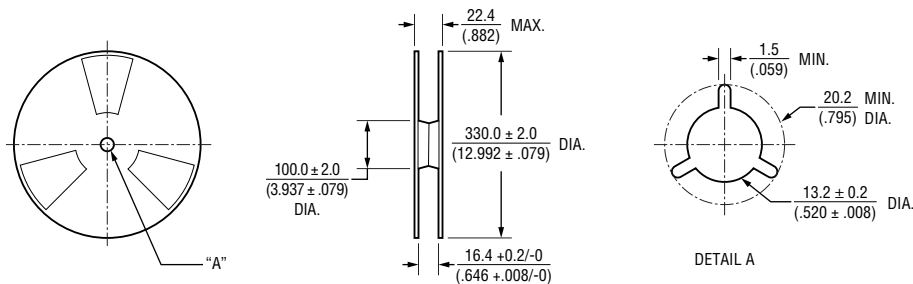
Solder Profile



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. 06/23

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