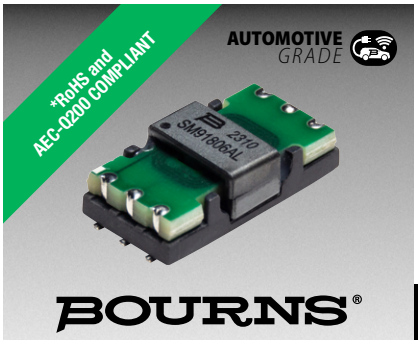


Features

- Planar technology primarily for BMS signal applications
- Working voltage: up to 1000 VDC
- Hi-Pot: 4300 VDC or 3000 VAC
- Basic insulation compliant with IEC 60664/61558/62368-1
- Clearance distance 8.2 mm minimum, pollution degree 2, material group CTI I
- Creepage distance 8.2 mm minimum, overvoltage category II
- Partial discharge up to 1200 V per IEC 60664
- Developed for use with Analog Device's LTC6815 series, NXP's MC33771C series and TI's model BQ79616
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

SM91806AL BMS Planar Transformer

Additional Information

Click these links for more information:

PRODUCT | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

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)
..... 1.2 µH max. (0.82 µH typ.)
DCR
Pri. and Sec..... 1.4 Ω max.
Interwinding Capacitance .....20 pF max.
Turns Ratio .....1 : 1 ± 2 %
Insertion Loss
4 MHz..... -0.25 dB max.
Return Loss
4 MHz..... -16 dB min.
Hi-Pot (1 mA, 60 sec.)
.....4300 VDC or 3000 VAC
Insulation Resistance ..... 50 MΩ min.
Partial Discharge Level..... 1200 V per IEC 60664
Impulse Voltage..... up to 6 kV, 1.2/50 µs with conformal coating
Working Voltage ..... up to 1000 VDC
Operating Temperature
..... -40 °C to +125 °C
Storage Temperature (Component)
..... -25 °C to +85 °C
Moisture Sensitivity Level.....1

Packaging Specification

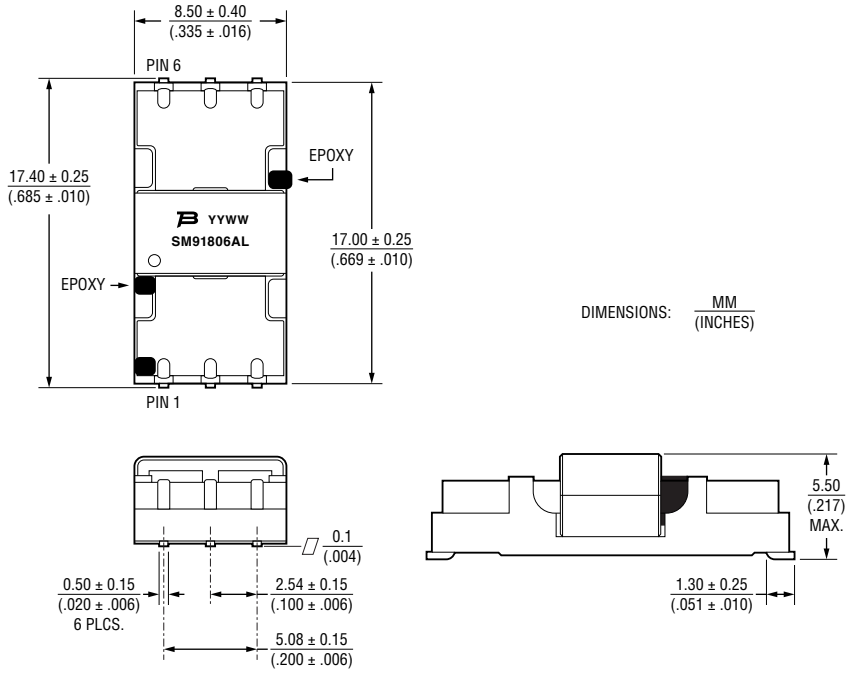
Tape & Reel..... 600 pcs. per 13-inch reel

How To Order

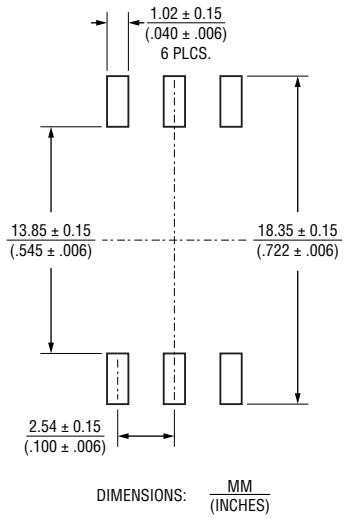
SM91806 A L - E

Model
AEC-Q200 Compliancy Designator
Termination
L = Tin (RoHS Compliant)
Packaging
E = 600 pcs. per 13-inch Reel

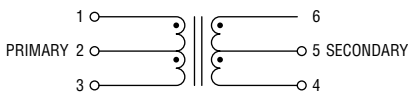
Product Dimensions



Recommended Layout



Electric Schematic



BOURNS®

Americas: Tel: +1 951-781-5500
Email: americus@bourns.com

Mexico: Tel: +52-614-478-0400
Email: mexicus@bourns.com

Asia: Tel: +886-2-2562-4117
Email: asiacus@bourns.com

EMEA: Tel: +36 88 885 877
Email: eurocus@bourns.com

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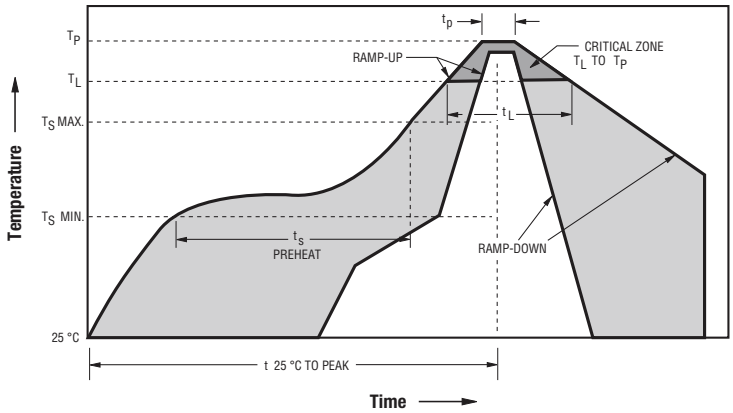
WARNING Cancer and Reproductive Harm www.P65Warnings.ca.gov

* 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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Reflow Solder Profile

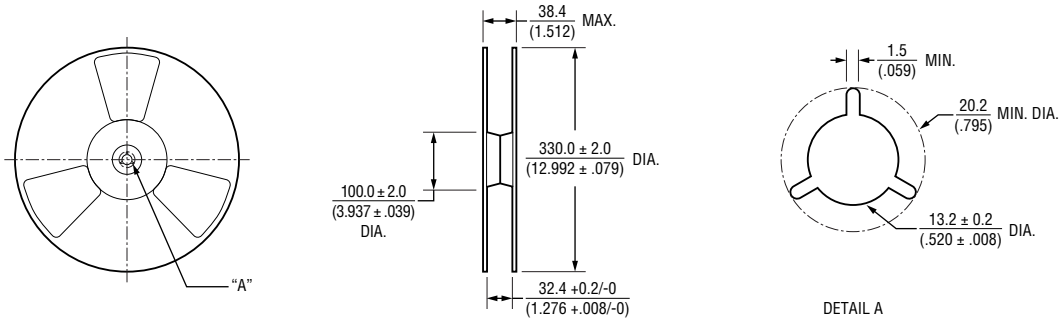


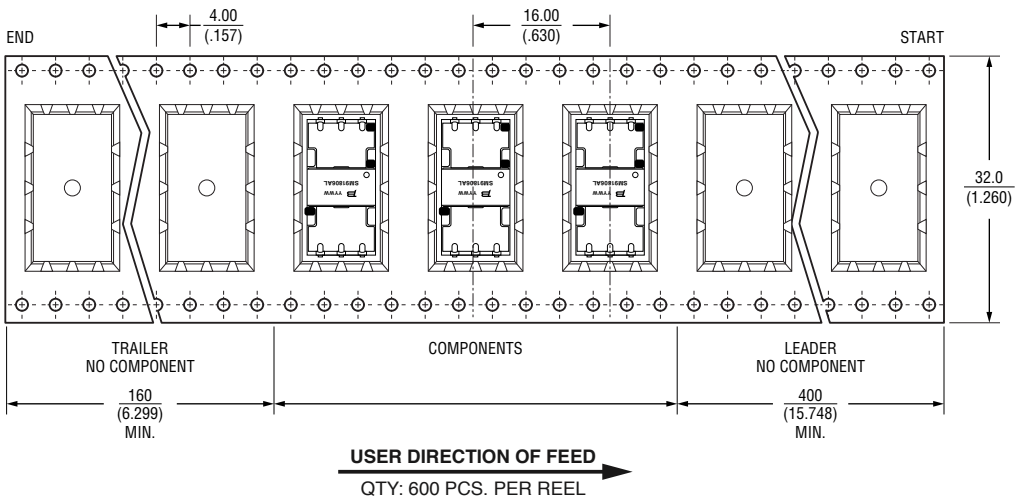
Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate	3 °C / second max.
PREHEAT: Temperature Min. (T_{smin}) Temperature Max. (T_{smax}) Time (T_{smin} to T_{smax})	 150 °C 200 °C 60~180 seconds
Liquidus Temperature (T_L)	217 °C
Time Above Liquidus Temperature (t_L)	60~150 seconds
Peak Temperature (T_p)	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

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Packaging Specifications





DIMENSIONS: MM (INCHES)

REV. 06/25

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