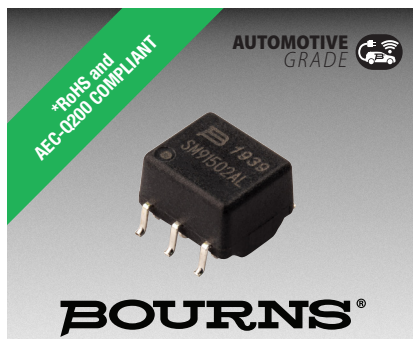




Features

- One channel with choke
- Supports serial daisy chain / IsoSPI
- Holds reference designs with Analog Device's Model LTC6804-1/6811 and NXP's MC33771/33772
- Operating temperature: -40 to +125 °C
- 1000 VDC working voltage

 This model is currently available but not recommended for new designs. The [Model SM91502ALA](#) is the recommended replacement.

- Hi-Pot: 4300 VDC
- AEC-Q200 compliant
- RoHS compliant*

SM91502AL BMS Transformer

Additional Information

Click these links for more information:



Electrical Specifications @ 25 °C

OCL (100 kHz, 0.1 V, (-40 °C ~ +125 °C))	150 μ H min., 450 μ H max.
Leakage Inductance (100 kHz, 0.1 V)	0.5 μ H max.
DCR	
Transformer Side	0.45 ohms max.
CM Choke Side	0.85 ohms max.
Turns Ratio	1:1 $\pm$ 2 %
Insertion Loss	
4 MHz	-0.25 dB max.
Return Loss (Z out = 100 ohms)	
4 MHz	-22 dB min.
Common Mode Rejection Ratio	
1~100 MHz	-35 dB min.
100~200 MHz	-28 dB min.
Hi-Pot (1 mA, 60 sec.)	4300 VDC
Working Voltage	1000 VDC
Design Construction	Functional insulation
Operating Temperature Range	-40 °C to +125 °C
Storage Temperature Range	-25 °C to +85 °C
Moisture Sensitivity Level	1
ESD Classification (HBM)	N/A

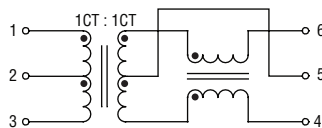
Packaging Specifications

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

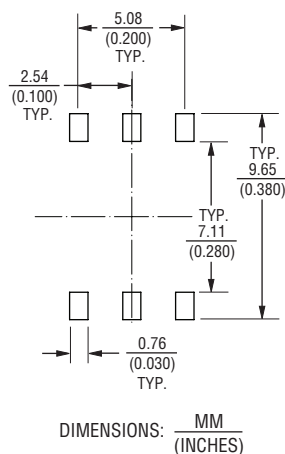
How To Order

Model SM91502 A L E
 Automotive Grade Designator _____
 A = AEC-Q200 Compliant
 Termination _____
 L = Cu/Ni/Sn (RoHS compliant*)
 Packaging _____
 E = Tape and Reel (800 pcs./13-inch reel)

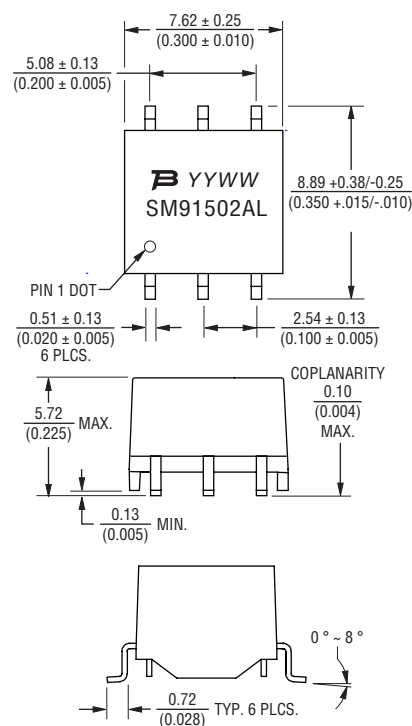
Electrical Schematic



Recommended Layout



Product Dimensions



BOURNS®

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 Mexico: Tel: +52-614-478-0400 • Email: mexicus@bourns.com
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*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

Specifications are subject to change without notice.

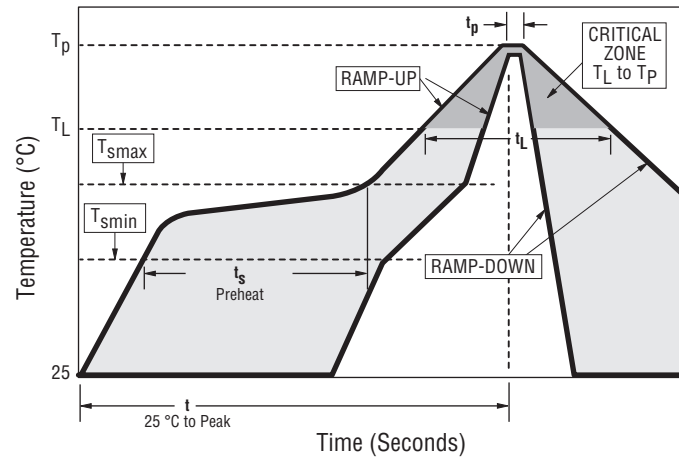
Users should verify actual device performance in their specific applications.

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

Solder Profile



Profile Feature	Pb Free Assembly
Average Ramp Rate (T_{Smax} to T_P)	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
Time Maintained Above - Temperature (T_L) - Time (t_L)	217 °C 60-150 seconds
Peak Temperature (T_P)	245 °C ~ 250 °C
Time within 5 °C of Actual Peak Temperature (t_p)	20-40 seconds
Ramp-Down Rate	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

Specifications are subject to change without notice.

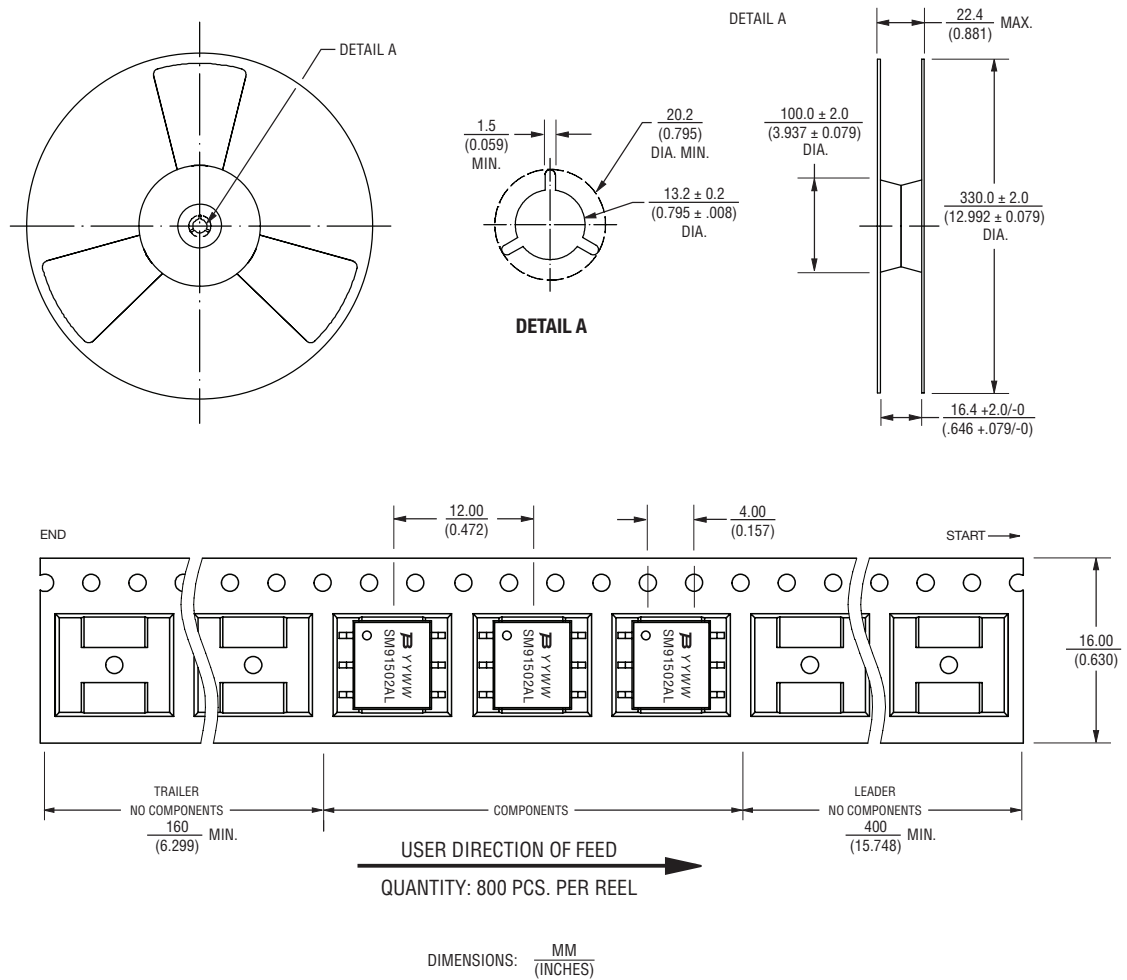
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SM91502AL BMS Transformer

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Packaging Specifications



REV. 07/25

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Users should verify actual device performance in their specific applications.

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