



Features

- Two channels with choke
- Matched with Texas Instruments' Model BQ79606
- Operating temperature: -40 to +125 °C
- Hi-Pot: 4300 Vdc or 3100 Vrms
- Working voltage: 1600 Vdc
- RoHS compliant*

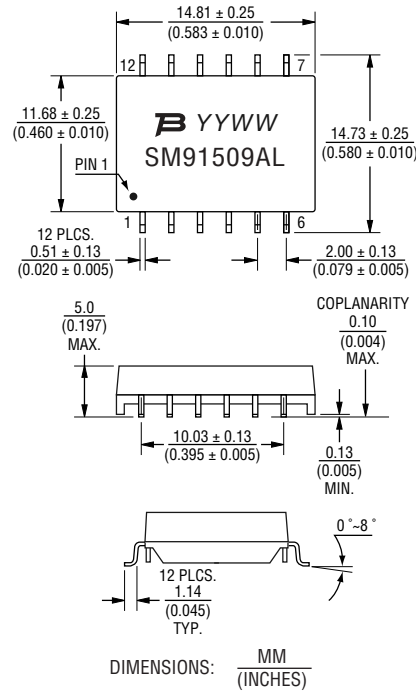
■ AEC-Q200 compliant

SM91509AL BMS Signal Transformer

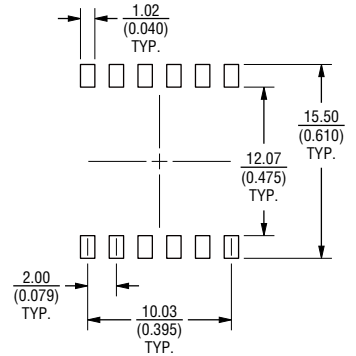
Electrical Specifications @ 25 °C

OCL (100 kHz, 0.1 V, (-40 °C ~ +125 °C))	600 μH min.
Leakage Inductance (100 kHz, 0.1 V)	0.5 μH max.
DCR	
Cable Side	1.2 Ω max.
Chip Side	1.2 Ω 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.
Cross Talk (Between each channel)	
1-10 MHz	-50 dB min.
10-100 MHz	-50+20*LOG ₁₀ (f/10 MHz)
Common Mode Rejection Ratio	
1~200 MHz	-30 dB min.
Hi-Pot (1 mA, 60 sec.)	
4300 Vdc or 3100 Vrms	
Design Construction	Functional Insulation
Working Voltage	1600 Vdc
Operating Temperature	-40 to +125 °C
Storage Temperature	-50 to +125 °C
Moisture Sensitivity Level	1
ESD Classification (HBM)	N/A

Product Dimensions



Recommended Layout



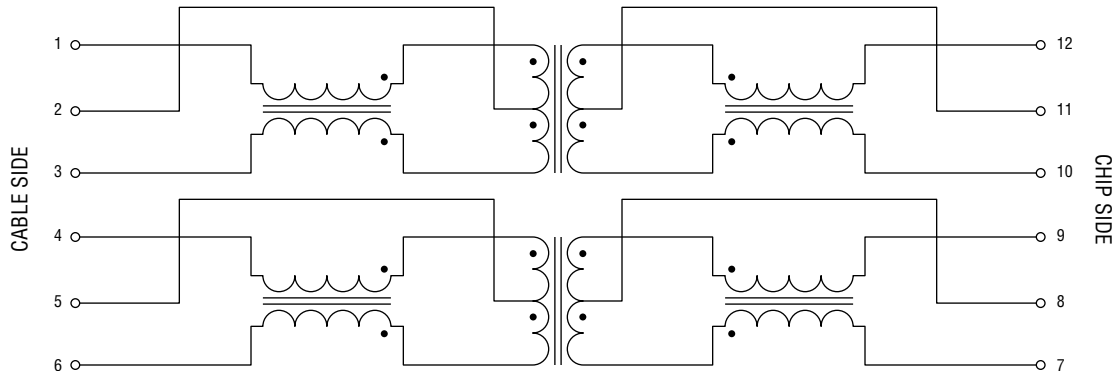
Packaging Specifications

Tape & Reel 400 pcs./reel

How To Order

Model **SM91509 A L - E**
 AEC-Q200 Compliant _____
 Termination _____
 L = RoHS Compliant
 Packaging _____
 E = Tape and Reel (400 pcs. per reel)

Electrical Schematic



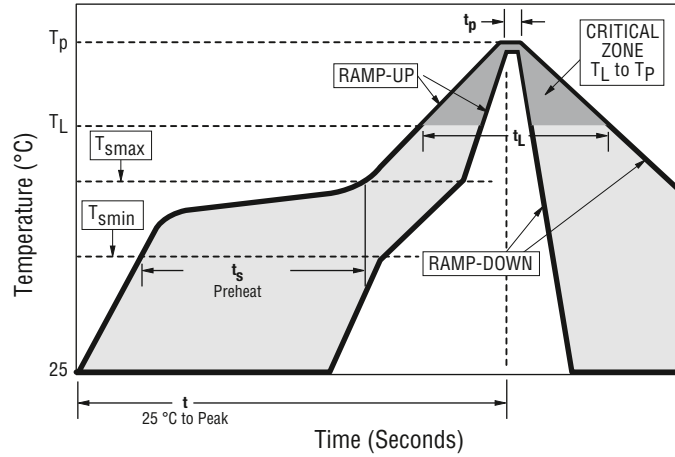
WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

* 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 Profile



Profile Features	Pb Free Assembly
Average Ramp-up Rate	3 °C/second max.
Preheat	
Temperature min. (T_S min)	150 °C
Temperature max. (T_S max)	200 °C
Time (t_S min. to t_S max.)	60 ~ 180 s
Liquidus Temperature: T_L	217 °C
Time above Liquidus Temperature: t_L	60 ~ 150 s
Peak Temperature: T_p	245-250 °C
Time within 5 °C of Actual Peak Temperature: t_p	20 ~ 40 s
Ramp-down Rate from Peak Temperature	6 °C/s max.
Time 25 °C to Peak: $t_{TO\ PEAK}$	8 minutes max.

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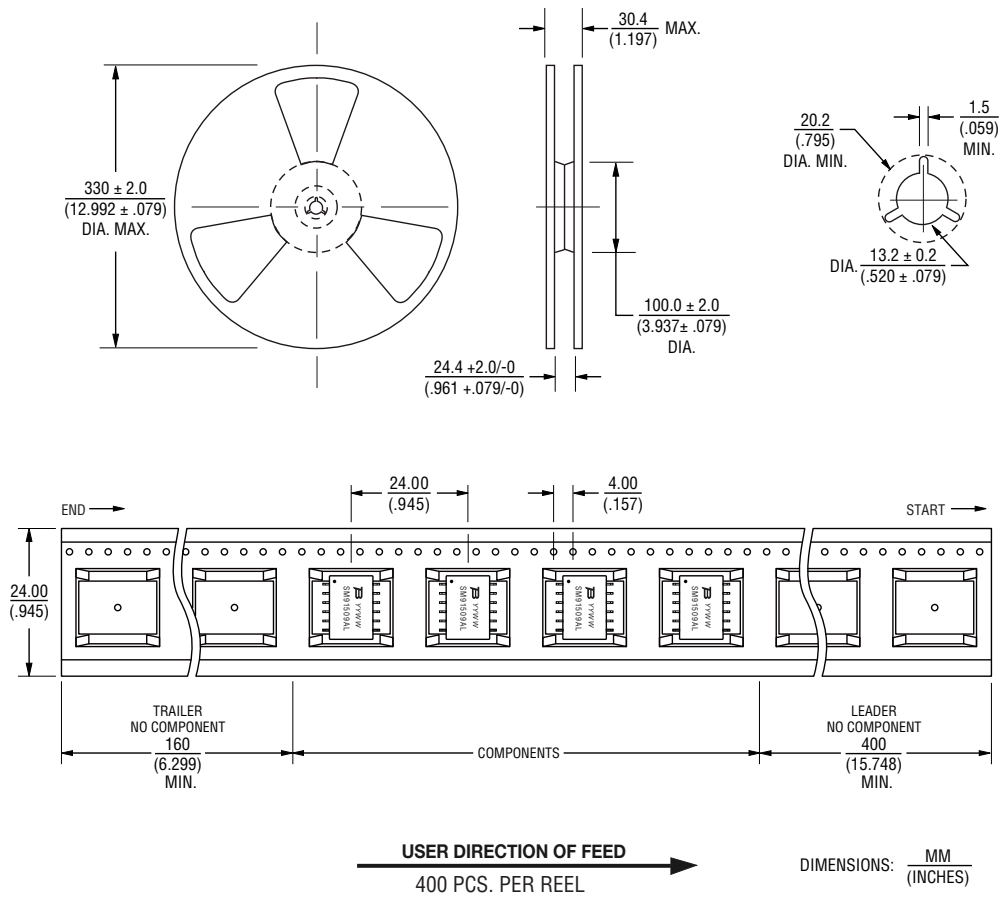
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SM91509AL BMS Signal Transformer

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Packaging Specifications

Specifications and tolerances comply with EIA-481 requirements.



BOURNS®

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