



Features

- Working voltage: up to 1500 VDC
- Hi-Pot: 5600 VAC, 1 mA, 60 sec. or 8000 VDC, 1 mA, 60 sec.
Impulse voltage: 12 kV, 1.2/50 μ s
- Partial discharge level up to 2250 V
- Reinforced insulation between primary and secondary per IEC 62477-1, IEC 60664-1 & IEC 62368-1
- Creepage distance >19 mm, pollution degree 2, material group CTI I
- Clearance distance >16 mm, overvoltage category III
- AEC-Q200 compliant
- RoHS compliant*

SM91543AL 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)	0.6 μ H max.
DCR	
1-3	0.5 Ω max.
4-6	0.6 Ω max.
Turns Ratio	1 : 1
Insertion Loss (1-3)-(6-4) 4 MHz	-1.0 dB max.
Return Loss (1-3)-(6-4) 4 MHz	-20 dB min.
Common Rejection Ratio (1-3)-(6-4) 1-100 MHz	-30 dB max.
Hi-Pot.....5600 VAC, 1 mA, 60 sec. or 8000 VDC, 1 mA, 60 sec.	
Working Voltage	1500 VDC
Operating Temperature Range	-40 °C to +125 °C
Storage Temperature Range	-25 °C to +85 °C
Moisture Sensitivity Level	1

Packaging Specification

Tape & Reel..... 300 pcs. per 13-inch reel

How To Order

SM91543 A L - E

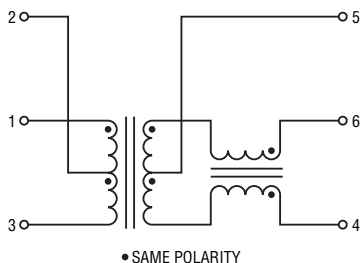
Model _____

AEC-Q200 Compliance Designator _____

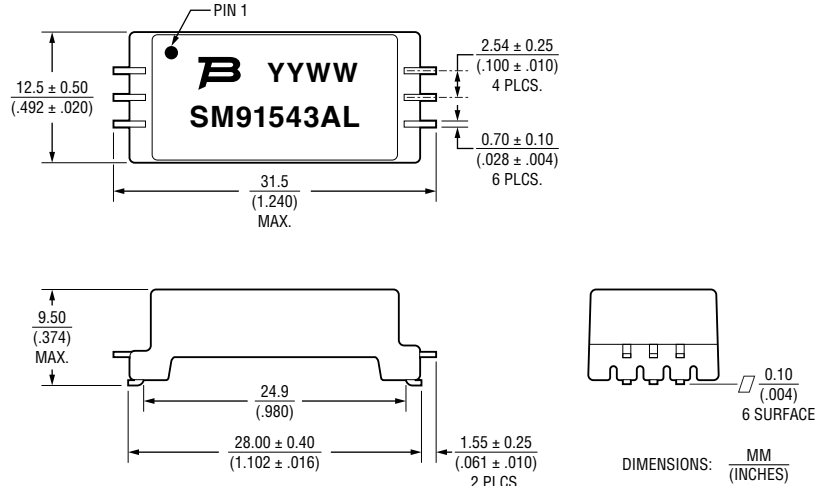
Termination _____
L = Tin (RoHS Compliant)

Packaging _____
E = Tape & Reel

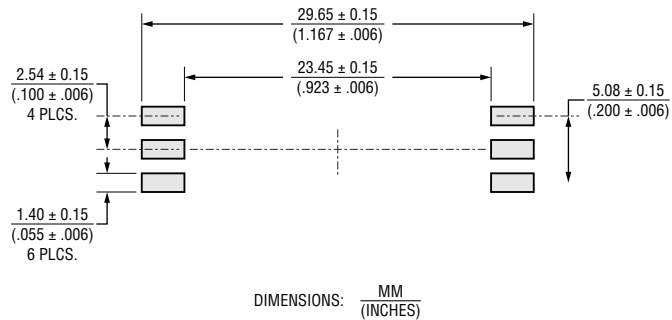
Electric Schematic



Product Dimensions



Recommended Layout



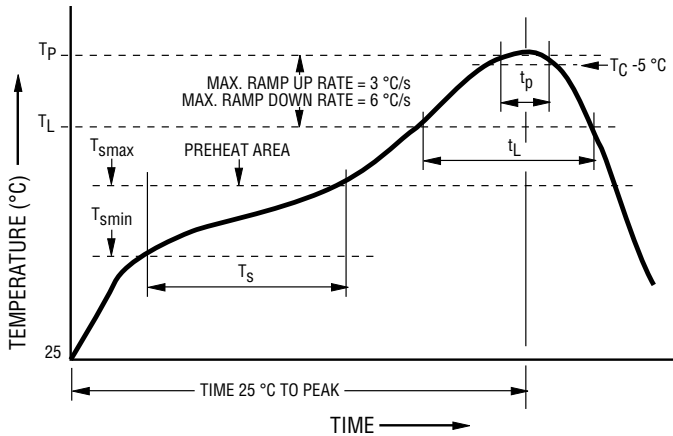
WARNING
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*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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SM91543AL BMS Transformer

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Solder Reflow Recommendations



Profile Feature	Pb-Free Assembly
Preheat / Soak:	
Temperature Min. (T_{smin})	150 °C
Temperature Max. (T_{smax})	200 °C
Time (t_s) from (T_{smin} to T_{smax})	60~120 seconds
Ramp Up Rate (T_L to T_P)	3 °C / second max.
Liquidous Temperature (T_L)	217 °C
Time (t_L) maintained above T_L	60~150 seconds
Peak Package Body Temperature (T_P)	$T_P \leq T_c$ (see table below)
Time (t_p)* within 5 °C of the specified classification temperature (T_c)	< 30 seconds*
Ramp Down Rate (T_P to T_L)	6 °C / second max.
Time 25 °C to Peak Temperature	8 minutes max.

*Tolerance for peak profile temperature (T_P) is defined as a supplier minimum and a user maximum.

Pb-Free Process Classification Temperatures (T_c)

Package Thickness	Volume mm ³ < 350	Volume mm ³ 350 - 2000	Volume mm ³ > 2000
< 1.6 mm	260 °C	260 °C	260 °C
1.6 mm - 2.5 mm	260 °C	250 °C	245 °C
> 2.5 mm	250 °C	245 °C	245 °C

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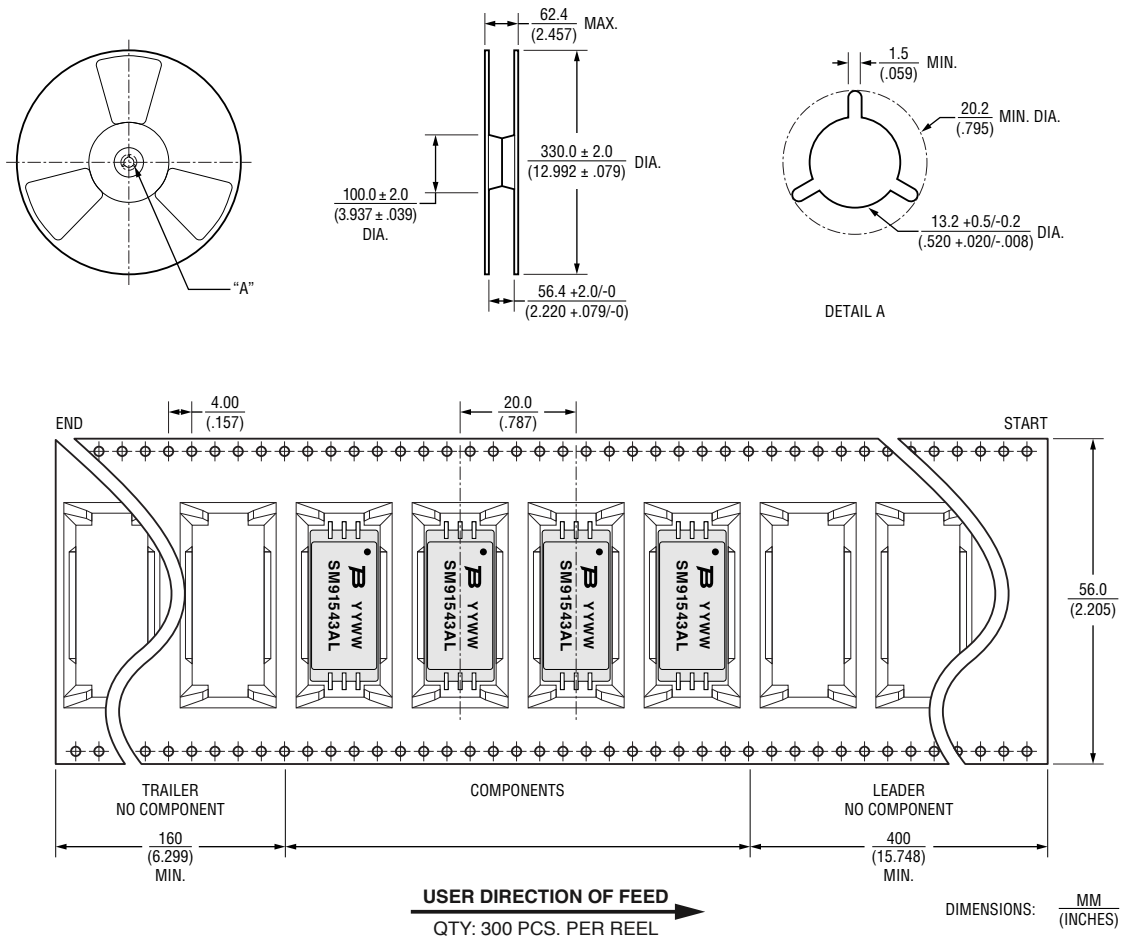
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SM91543AL BMS Transformer

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Packaging Specifications

Specifications and tolerances comply with EIA-481 requirements.



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

www.bourns.com

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