



Features

- Working voltage up to 1000 VDC
- Hi-Pot: 3500 VAC, 1 mA, 60 s
- Reinforced insulation per IEC 62368-1
- Clearance distance >10.5 mm
- Creepage distance >11.5 mm
- Overvoltage Category II, pollution degree 2, material group I
- RoHS* and AEC-Q200 compliant

SM91523AL BMS Planar Transformer

Additional Information

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PRODUCT



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INVENTORY



SAMPLES



CONTACT

General Specifications

Inductance (100 kHz / 0.1 V)
(-40 °C ~ +125 °C)..... 150 uH ~ 450 uH
Leakage Inductance (100 kHz / 0.1 V)
..... 0.6 uH max.
DCR
1-3..... 0.45 Ω max.
4-6..... 0.85 Ω max.
Turns Ratio..... 1:1 ±2 %
Insertion Loss
4 MHz -0.3 dB max.
Return Loss
4 MHz -20 dB min.
Hi-Pot (1 mA, 60 s) 3500 VAC
Common Mode Rejection Ratio
1 ~ 100 MHz -35 dB min.
Impulse Voltage..... 10 kV, 1.2/50 μs
Working Voltage up to 1000 VDC
Operating Temperature Range
..... -40 °C to +125 °C
Storage Temperature Range
..... -25 °C to + 85 °C

Packaging Specification

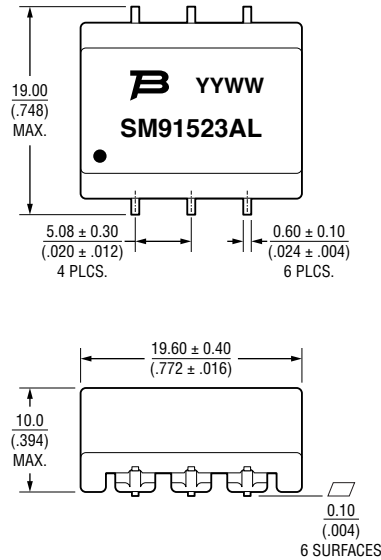
Tape & Reel..... 200 pcs. per 13-inch reel

How To Order

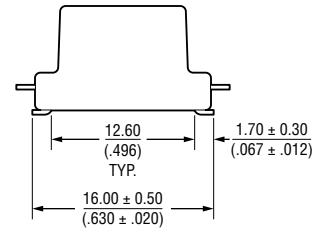
SM91523 A L - E

Model _____
AEC-Q200 Compliant _____
RoHS Compliancy Designator _____
Packaging _____
E = Tape and Reel Packaging

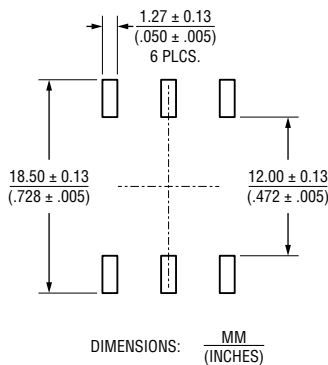
Product Dimensions



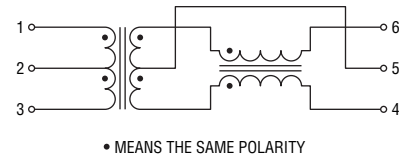
DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$



Recommended Layout



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.

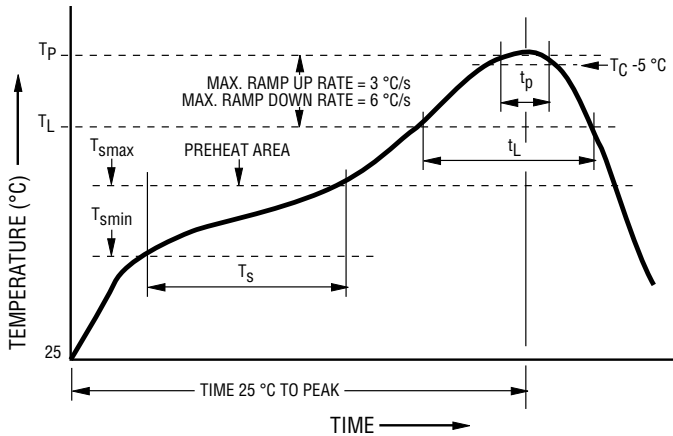
Users should verify actual device performance in their specific applications.

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SM91523AL BMS Planar 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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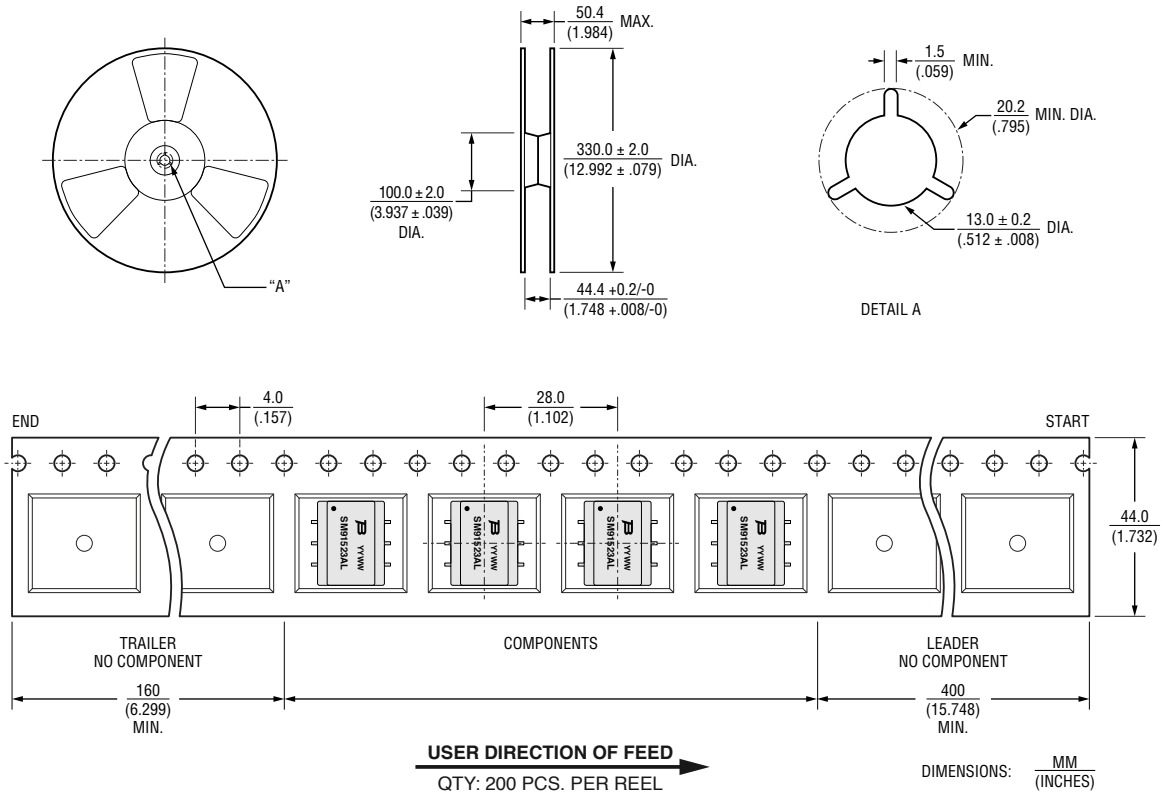
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SM91523AL BMS Planar Transformer

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Packaging Specifications

Specifications and tolerances comply with EIA-481 requirements.



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