



Features

- Fully automated with overmolding process
- High isolation reliability in a compact size
- Working voltage up to 1000 VDC
- Hi-Pot: 5000 VDC, 1 mA, 60 sec.
- Reinforced insulation between primary and secondary per IEC 60664-1 & IEC 62368-1
- Creepage distance >10.0 mm
- Clearance distance >10.0 mm
- RoHS compliant*

SM91243L Power Transformer

Additional Information

Click these links for more information:



Electrical Specifications @ 25 °C

Primary Inductance (0.1 V at 500 kHz)	
L (1-3)	5.88 μ H \pm 35 %
Secondary Inductance (0.1 V at 500 kHz)	
L (4-6)	5.88 μ H \pm 35%.
Leakage Inductance (0.1 V at 500 kHz)	
L (1-3, short Pin 6-4)	1.5 μ H max.
L (6-4, short Pin 1-3)	1.5 μ H max.
Capacitance (0.1 V at 500 kHz)	
(1-3,6-4)	1.5 pF max.
DC Resistance	
NP (1-3)	160 m Ω max.
NP (6-4)	160 m Ω max.
Turns Ratio	
NP (1-3) : NS (6-4)	1:1
Hi-Pot (NP-NS)	5.0k VDC, 1 mA, 60 sec.
Impulse Test	8000 V
Working Voltage	>1000 VDC
Operating Temperature	-40 °C to +125 °C
Storage Temperature	-25 °C to +85 °C
ESD Classification (HBM)	N/A

Packaging Specification

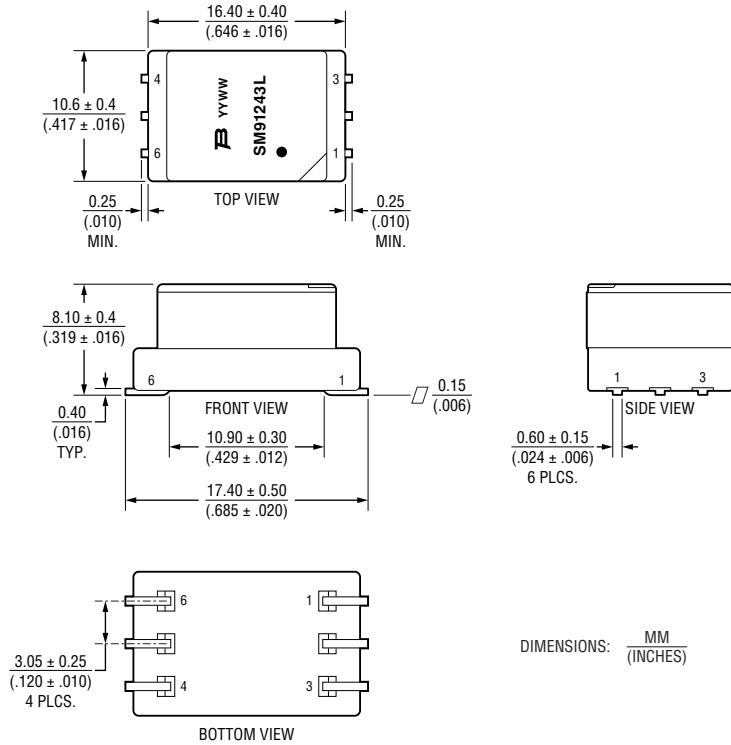
Tape & Reel..... 400 pcs. per 13-inch reel

How To Order

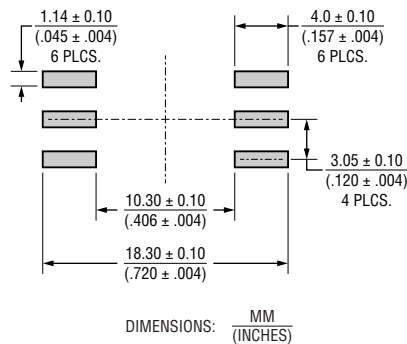
SM91243 L - E

Model _____
 RoHS Compliancy Designator _____
 Tape & Reel Packaging _____

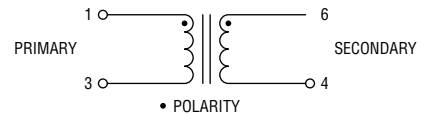
Product Dimensions



Recommended Layout



Electric Schematic



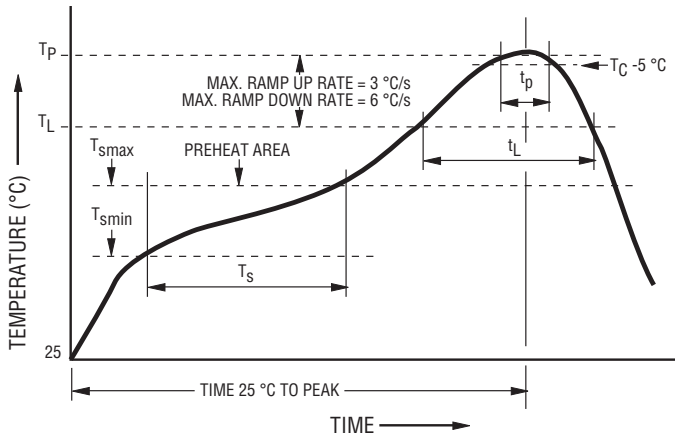
CALIFORNIA WARNING: Can expose you to lead, a carcinogen and reproductive toxicant.
 See www.P65Warnings.ca.gov

*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 Reflow Recommendations



Profile Feature	Pb-Free Assembly
Preheat / Soak: Temperature Min. (T_{smin}) Temperature Max. (T_{smax}) Time (t_s) from (T_{smin} to T_{smax})	150 °C 200 °C 60~120 seconds
Ramp Up Rate (T_L to T_p)	3 °C / second max.
Liquidous Temperature (T_L) Time (t_L) maintained above T_L	217 °C 60~150 seconds
Peak Package Body Temperature (T_p)	$T_p \leq T_C$ (see table below)
Time 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.

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

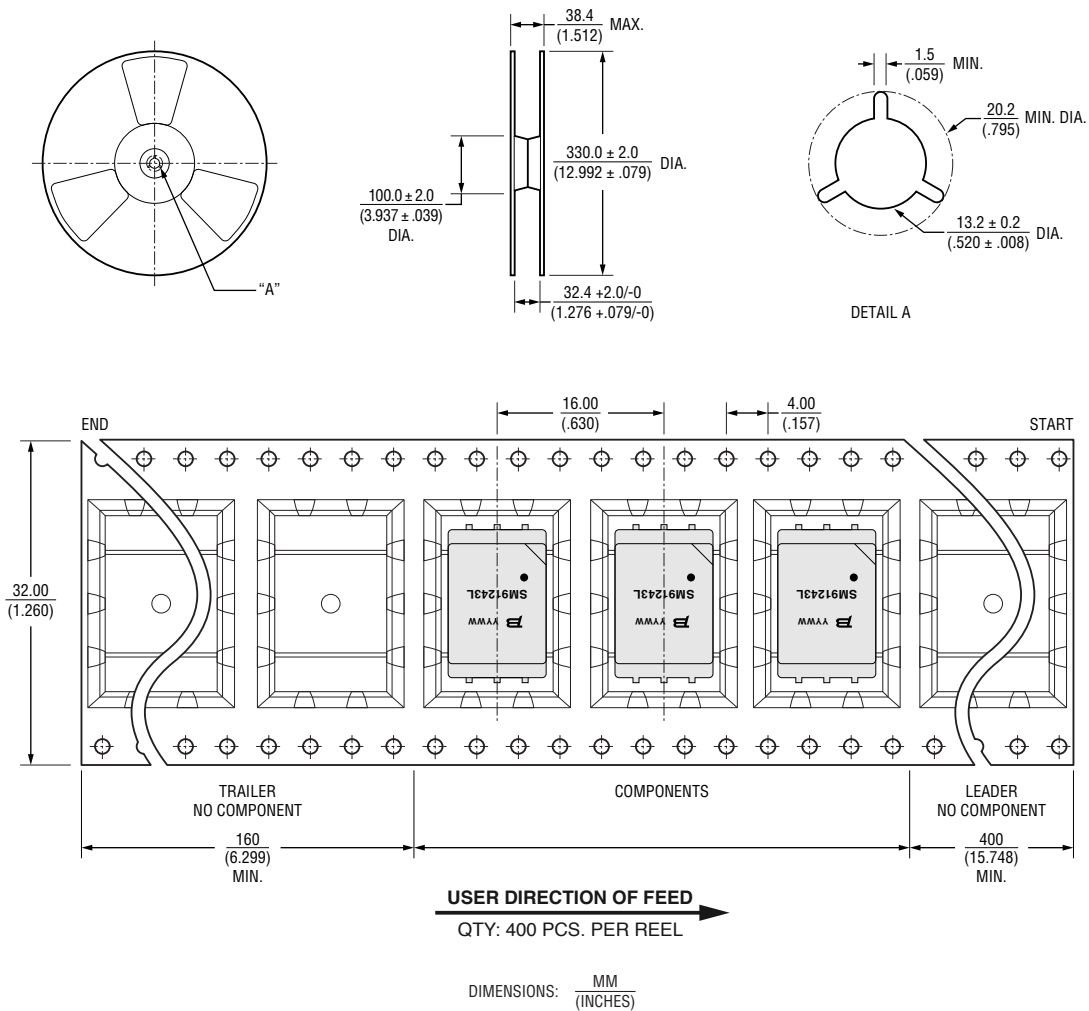
Refer to IPC/JEDEC J-STD-020.

NOTE: This part has been treated under these reflow conditions. Deviations, especially higher temperatures for longer duration, could impact performance.

SM91234L Power Transformer

BOURNS®

Packaging Specifications



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