



Features

- Wide operating input voltage range
- Meets IEC 60950-1, Functional Grade of Insulation
- RoHS compliant*

Applications

- TI UCC28880 High voltage switcher
- AC/DC Power supplies
- Metering, home automation, appliances, white goods and LED drivers

SM91047EL Series Flyback Transformer

Electrical Specifications @ 25 °C

Bourns Part Number	L (Pin 9-7) ±15 % @10 kHz / 1 V	Rated Current	Hi-pot	
			NP to NS	NP, NS to Core
SM91047EL	5.0 mH	0.2 Adc	1.5 k Vrms, 2 mA, 2 S	200 Vrms, 2 mA, 2 S
SM91047-1EL	3.5 mH	0.3 Adc	1.5 k Vrms, 2 mA, 2 S	1.5 k Vrms, 2 mA, 2 S
SM91047-2EL	5.0 mH	0.2 Adc	3 k Vrms, 2 mA, 2 S	2 k Vrms, 2 mA, 2 S

Rated Current

L_{drop} (Pin 9-7) @ 10 kHz, 1 V >85 % L_{0A}

Leakage Inductance @10 kHz, 1 V

Pin 9-7 100 μ H max.
(Pin 2,4 Short)

DCR

Pin 9-7 8.0 Ω ±20 %
Pin 2-4 104 m Ω ±30 %

Turns Ratio & Polarity @10 kHz, 1 V

Pin 9-7 : Pin 2-4 11.875 : 1 typ.

Operating Temperature Range -40 °C to +125 °C
including temperature rise

Storage Temperature Range -40 °C to +85 °C

Packaging Specifications

Tape & Reel 180 pcs./reel

How To Order

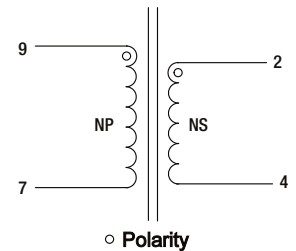
Model _____ **SM91047** _____ **E L**

L (see Electrical Specifications chart)
Blank = 5 mH, 1.5 kV / 200 V Hi-pot
-1 = 3.5 mH, 1.5 kV / 1.5 kV Hi-pot
-2 = 5 mH, 3 kV / 2 kV Hi-pot

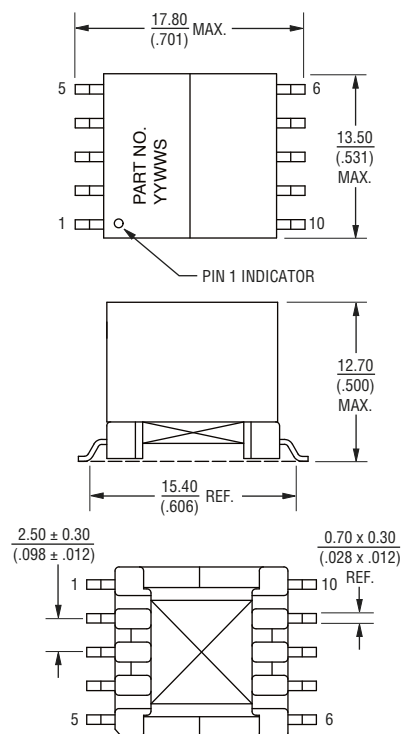
Packaging _____
E = Tape and Reel (180 pcs./reel)

Termination _____
L = Tin (RoHS Compliant)

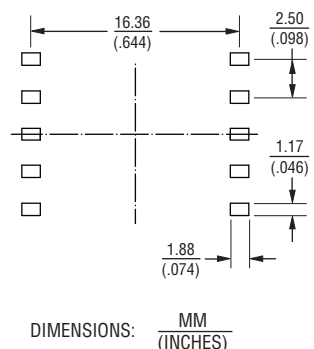
Electrical Schematic



Product Dimensions



Recommended Layout



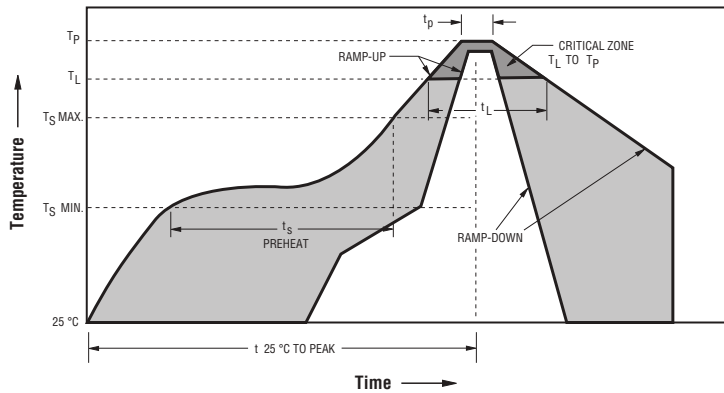
WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf
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SM91047EL Series Flyback Transformer

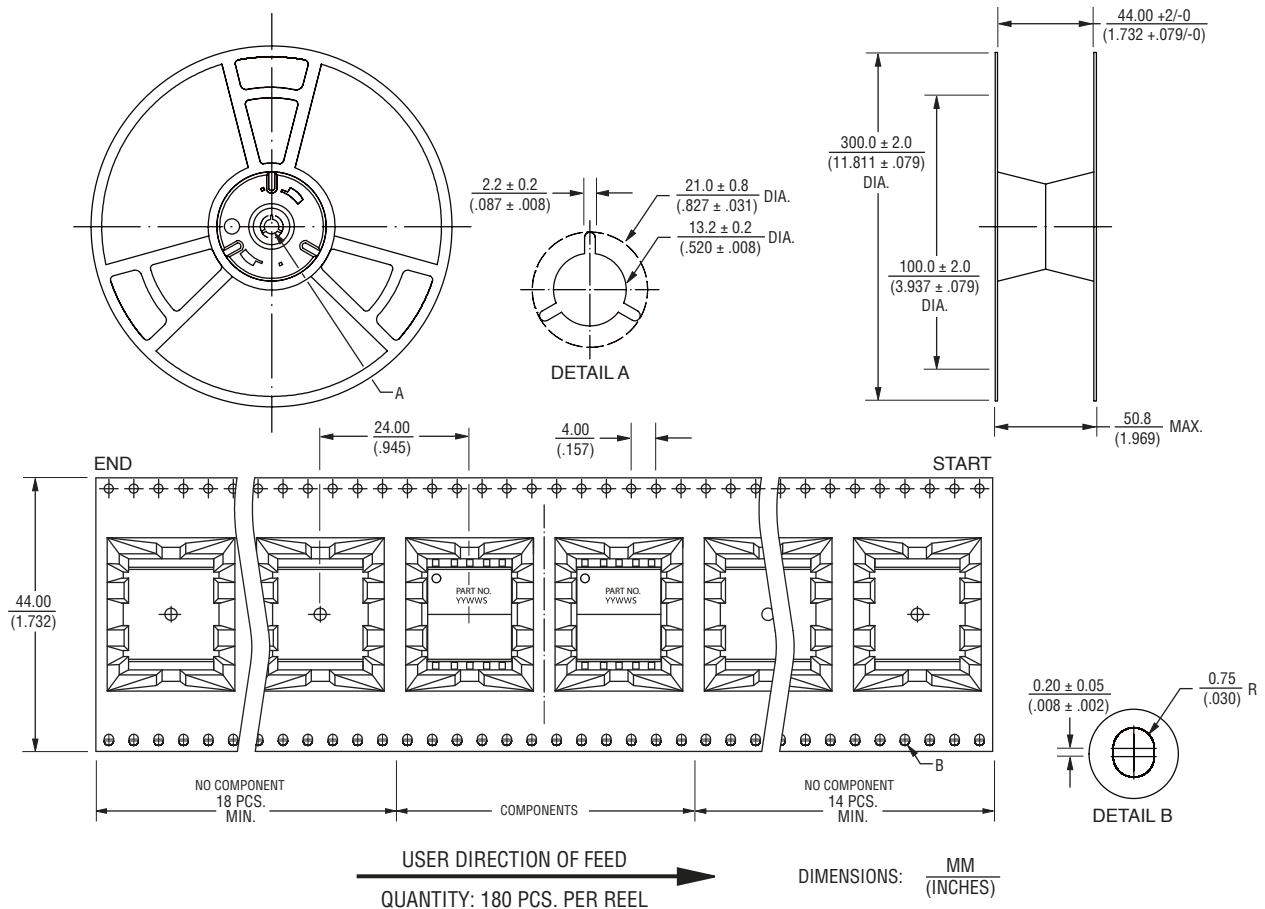
BOURNS®

Reflow Solder Profile



Ramp-up rate = 3 °C/sec. max.
 Ramp-down rate = 6 °C/sec. max.
 $T_L = 217\text{ }^\circ\text{C}$ $t_L = 60\text{-}150\text{ sec.}$
 $T_p = 245\text{ }^\circ\text{C} \pm 5\text{ }^\circ\text{C}$
 Time within 5 °C of actual Peak Temp (t_p) = 20-40 sec.
 $T_s \text{ min} = 150\text{ }^\circ\text{C}$ $T_s \text{ max} = 200\text{ }^\circ\text{C}$
 $T_s \text{ min to } T_s \text{ max} = 60\text{-}180\text{ sec.}$, 25 °C to Peak Temperature = 6 min. max.

Packaging Specifications



REV. 01/18

Specifications are subject to change without notice.
 Users should verify actual device performance in their specific applications.
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