



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
SM91047EL	5.0 mH	0.2 Adc
SM91047-1EL	3.5 mH	0.3 Adc

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.

Hi-Pot

NP to NS

..... 1.5k Vrms, 2 mA, 2 sec.

NP, NS to Core

..... 200 Vrms, 2 mA, 2 sec. Operating

Temperature Range

..... -40 °C to +125 °C

including temperature rise

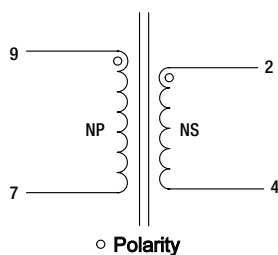
Storage Temperature Range

..... -40 °C to +85 °C

Packaging Specifications

Tape & Reel..... 180 pcs./reel

Electrical Schematic



How To Order

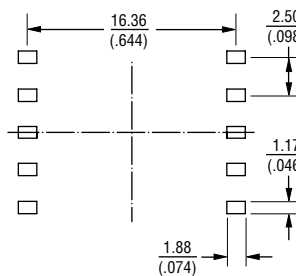
Model **SM91047** **E L**

L (see Electrical Specifications chart)
Blank = 5 mH
-1 = 3.5 mH

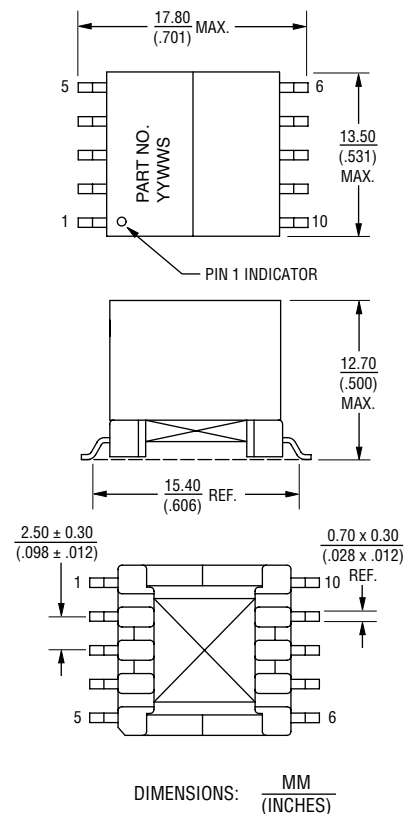
Packaging
E = Tape and Reel (180 pcs./reel)

Termination
L = Tin (RoHS Compliant)

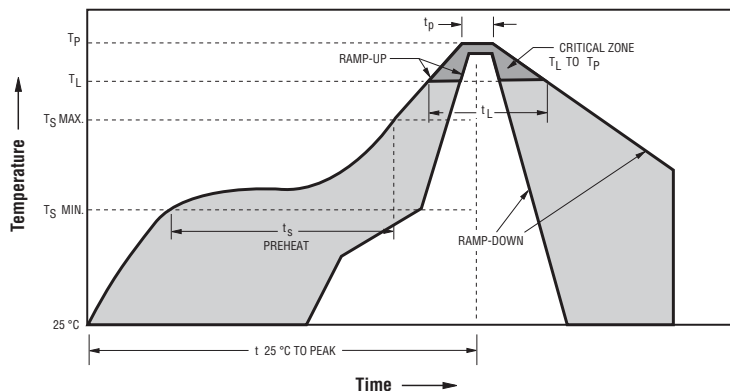
Recommended Layout



Product Dimensions



Reflow Solder Profile



Ramp-up rate = 3 °C/sec. max.
Ramp-down rate = 6 °C/sec. max.
 T_L = 217 °C t_L = 60-150 sec.
 T_P = 245 °C ±5 °C
Time within 5 °C of actual Peak Temp (t_p) = 20-40 sec.
 T_S min = 150 °C T_S max = 200 °C
 T_S min to T_S max = 60-180 sec., 25 °C to Peak Temperature = 6 min. max.

*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.

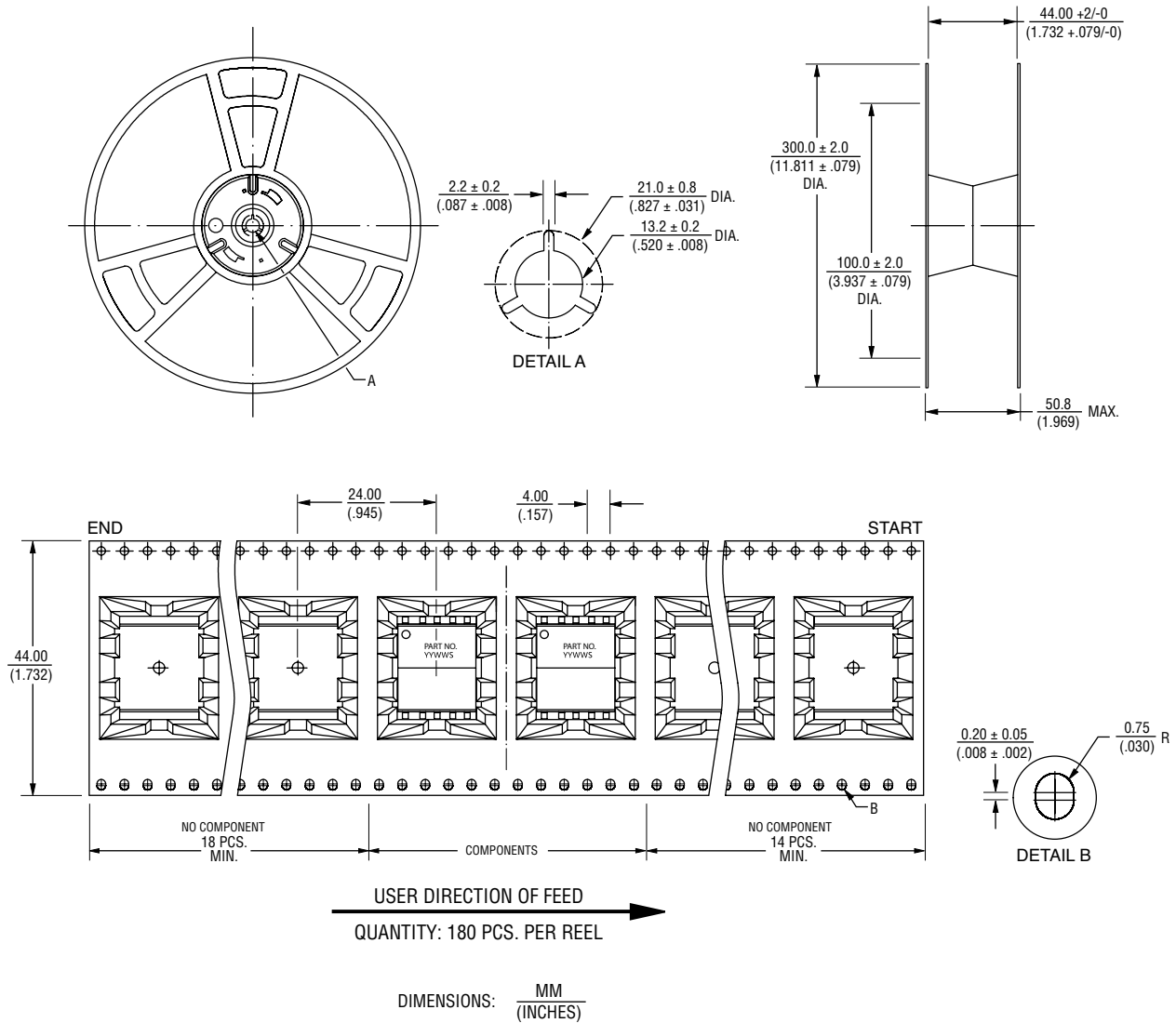
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

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SM91047EL Series Flyback Transformer

BOURNS®

Packaging Specifications



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