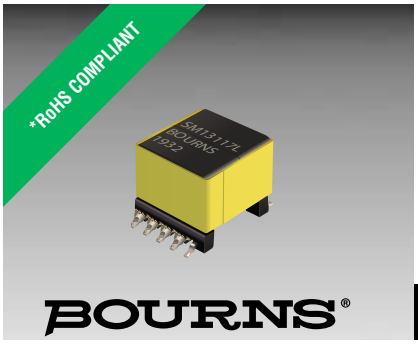



## Features

- 13 W PoE
- 1.5 kVrms isolation voltage
- Supports IEEE 802.3af compliant, integrated PoE PD and PWM controllers
- UL 94V-0 rated bobbin
- UL 1446 Class B Insulation System
- RoHS compliant*

BOURNS®

# SM13117EL - PoE Flyback Transformer

## Electrical Specifications @ 25 °C

| Bourns Part Number | Power (W) | L3-4 (μH) ± 10 % @ 250 kHz / 0.1 V | DCR (mΩ) Max. | | | Turns Ratio ± 3 % (3-4) : (2-1) : (7-9) : (8-10) | Input | Output |
|---|---|---|---|---|---|---|---|---|
| | | | 3-4 | 2-1 | 7,8 (short) – 9,10 (short) | | | |
| SM13117EL | 13 | 127 | 199 | 308 | 33 | 1 : 0.5 : 0.5 : 0.5 | 36-72 Vdc 250 kHz | 12 Vdc @ 1.08 A |

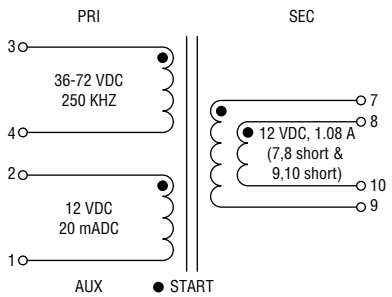
## General Specifications

Primary (3-4) Leakage Inductance (250 kHz, 0.1 V Aux. Sec. shorted) ..... 2.0 μH Max.
Hi-Pot
Pri/Sec.....1.5 kVac, 2 mA, 2 Sec.
Pri/Aux, Pri/core, Sec/core ..... 0.5 kVAC, 2 mA, 2 Sec.
Operating Temperature....-40 to +125 °C (temperature rise included)
Storage Temperature (Component) .....-40 to +125 °C
Moisture Sensitivity Level.....1
ESD Classification (HBM)..... N/A

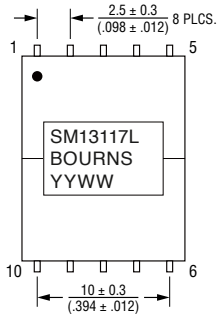
## Materials

Core.....Ferrite
Wire .....Enameled copper
Terminal Finish .....Sn
Packaging..... 200 pcs. per 13-inch reel

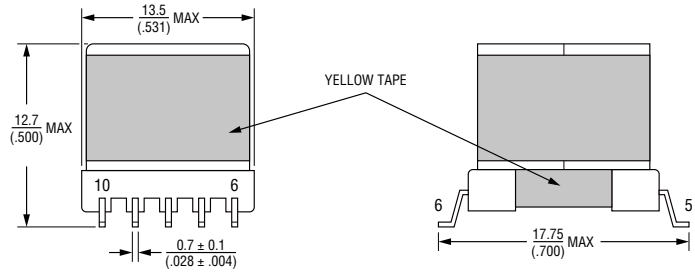
## Electrical Schematic



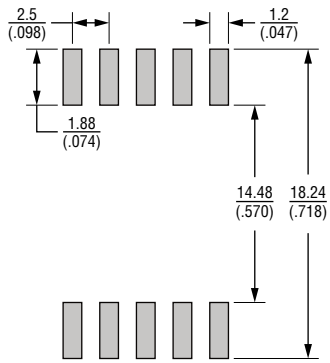

## Product Dimensions




DIMENSIONS: MM / (INCHES)




## Recommended Layout




## How To Order

**SM13117 E L**

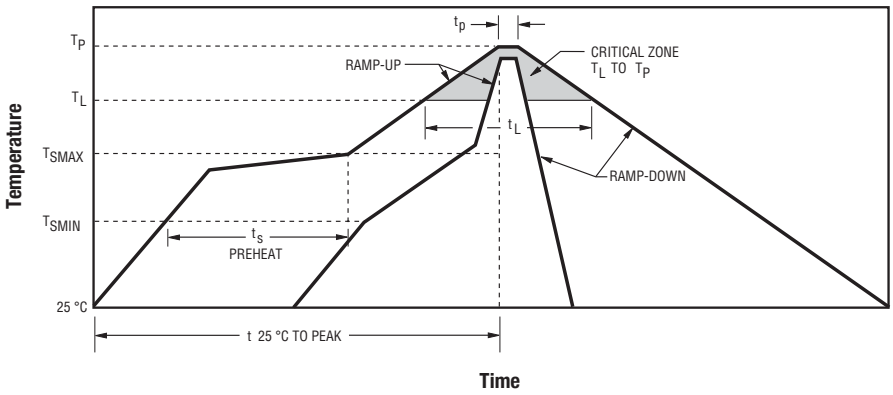
Model
Packaging
E = Tape and Reel (200 pcs. per reel)
Termination
L = Tin (RoHS Compliant)

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

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
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## Solder Profile



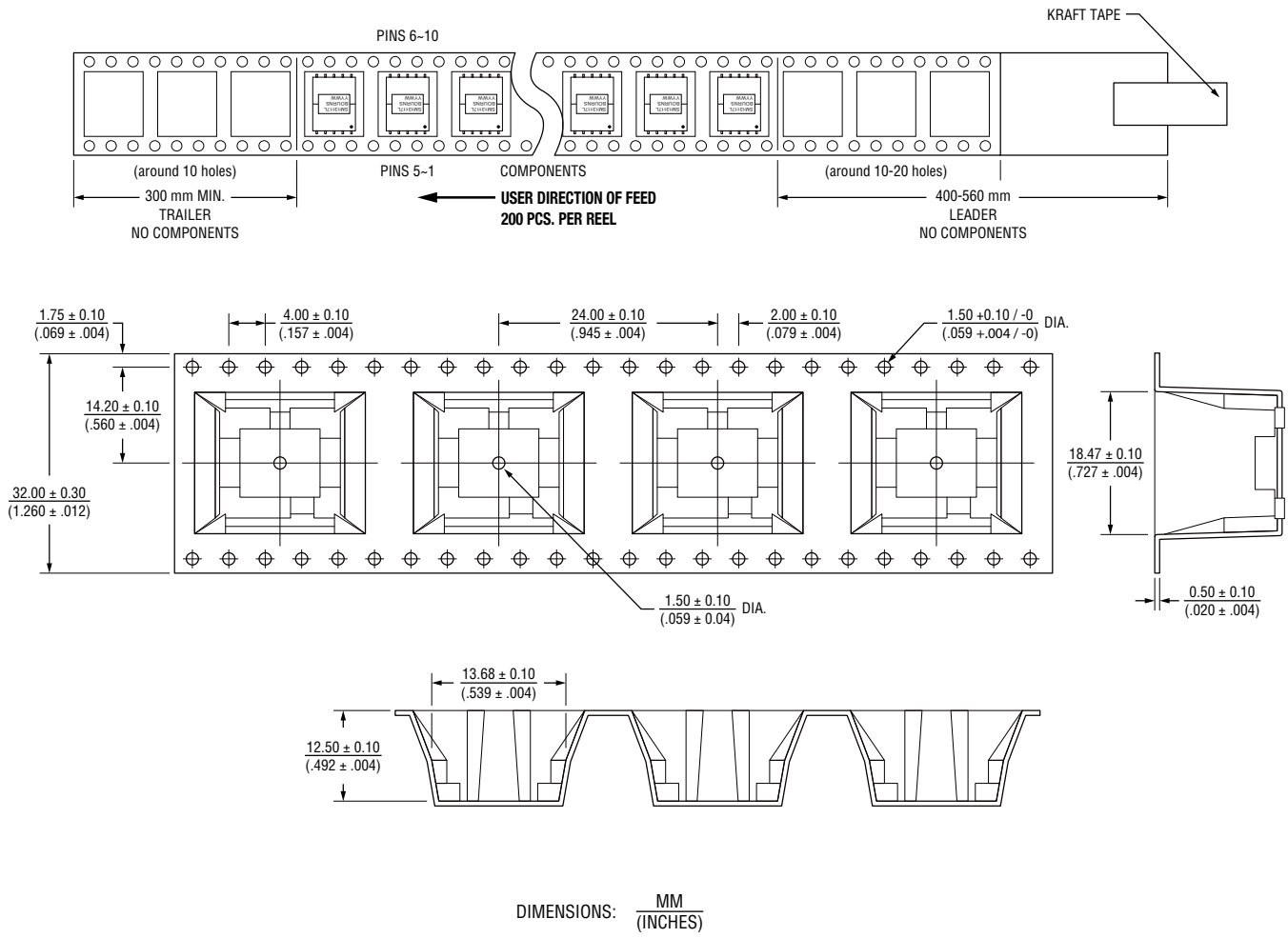

- Ramp-up rate = 3 °C/sec. max.
- Ramp-down rate = 6 °C/sec. max.

- $T_L$ = 217 °C
- $t_L$ = 60-150 sec.
- $T_p$ = 250 ±3 °C
- Time within 5 °C of actual Peak Temp ($t_p$) = 20~40 sec.
- $T_{smin}$ = 150 °C
- $T_{smax}$ = 200 °C
- $T_{smin}$ to $T_{smax}$ = 60-180 sec., 25 °C to Peak Temperature = 8 min. max.

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## Packaging Specifications




DIMENSIONS: MM / (INCHES)

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