

## Features

- Subminiature in SMT
- 7.5 mm seated height
- Distortion of only 0.015 %
- Vacuum encapsulated
- UL60950 certified
- RoHS compliant\*

## Applications

- Modems (V32)
- Laptop Computers
- Telecommunications
- Instrumentation

## SM-LP-5001 Series - Surface Mount Line Matching Transformers

### Electrical Specifications

|                             |                                  |
|-----------------------------|----------------------------------|
| Nominal Impedance.....      | 600 Ω                            |
| Turns Ratio .....           | 1:1                              |
| Insertion Loss .....        | 2.0 dB max. at 2 kHz             |
| Frequency Response .....    | ±0.25 dB max. 200-4 kHz          |
| Return Loss .....           | 24 dB min. 200-4 kHz*            |
| Balance.....                | 80 dB min.                       |
| Distortion .....            | -76 dB max.<br>@ 600 Hz, -10 dBm |
| Dielectric Strength ...     | 2000 VRMS for 1 min.             |
| Insulation Resistance ..... | 100 MΩ @ 500 V                   |
| DC Resistance**             |                                  |
| Primary.....                | 115 Ω ±15 %                      |
| Secondary.....              | 115 Ω ±15 %                      |
| Shunt Inductance.....       | 3.8 H min.                       |
| Shunt Loss.....             | 7500 Ω min.                      |
| Leakage Inductance.....     | 6 mH typ. @ 1 kHz                |
| Power Level.....            | 10 dBm                           |
| Operating Temperature.....  | -20 °C to +85 °C                 |
| Storage Temperature.....    | -40 °C to +85 °C                 |

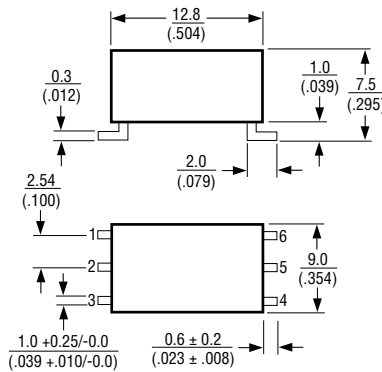
### Materials

Terminal Plating.....Sn/Ag/Cu

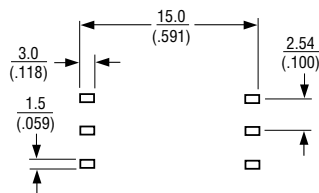
\*For use with recommended circuit (BS6305 impedance Class A non-speech or Class B speech).

\*\*SM-LP-5001 is symmetrical, meaning there is no real primary nor secondary winding.

### Product Dimensions



### Suggested PCB Layout



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

LEAD COPLANARITY:  $\frac{0.15}{(.006)}$  MAX.

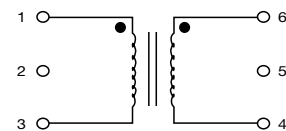
UNLESS OTHERWISE SPECIFIED, TOLERANCE:  $\pm 0.25$  (.010) MAX.

### How To Order

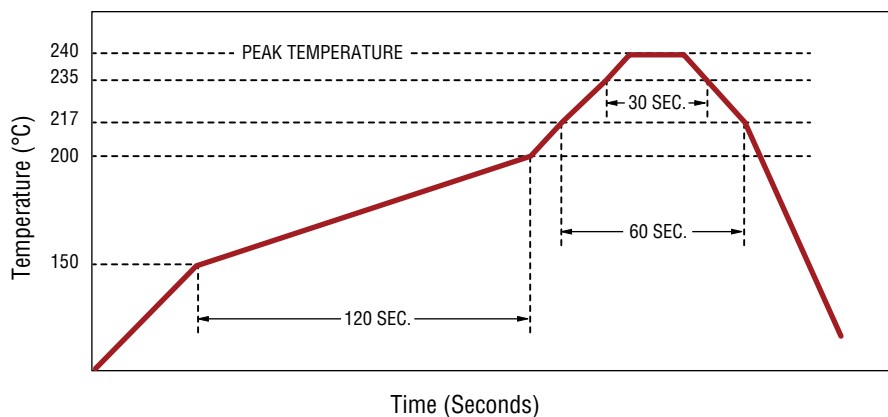
#### SM-LP-5001

Model \_\_\_\_\_  
 Packaging \_\_\_\_\_  
 Blank = Packaged in tubes  
 E = Tape and reel (400 pcs. per reel)

### Schematic



### Solder Profile



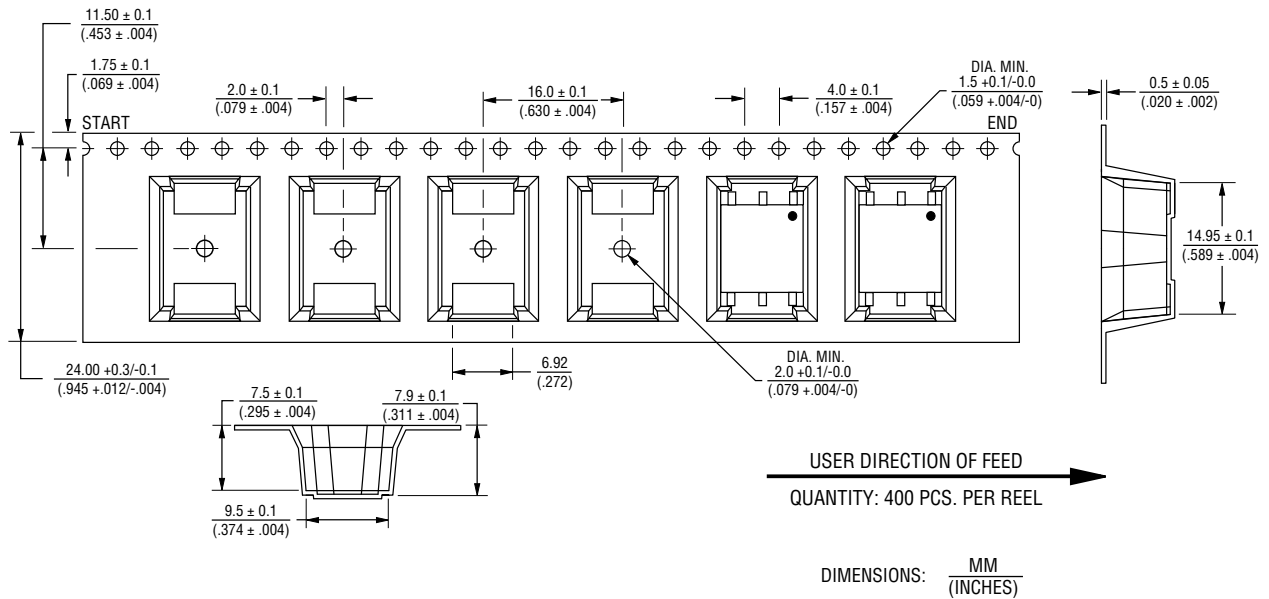
**WARNING Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*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](http://www.bourns.com/docs/legal/disclaimer.pdf).

# SM-LP-5001 Series - Surface Mount Line Matching Transformers

**BOURNS®**

## Packaging Specifications



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REV. 05/17

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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