

### Features

- 7.5 mm seated height
- Distortion of only 0.015 %
- Vacuum encapsulated
- Weight - 2 g
- UL60950 approved
- RoHS compliant\*

### Applications

- Modems (V34 and V92)
- Laptop Computers
- Telecommunications
- Instrumentation

## SM-LP-5002 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 ..... -85 dB max.  
 @ 600 Hz, -10 dBm  
 Dielectric Strength...2000 VRMS for 1 min.  
 Insulation Resistance ..... 100 MΩ @ 500 V  
 DC Resistance\*\*  
 Primary ..... 136 Ω ± 12 %  
 Secondary ..... 136 Ω ± 12 %  
 Shunt Inductance ..... 3.8 H min.  
 Shunt Loss ..... 7500 Ω min.  
 Leakage Inductance ...6-7 mH typ. @ 1 kHz  
 Power Level ..... 10 dBm  
 Operating Temperature...-20 °C to +85 °C  
 Storage Temperature.....-40 °C to +85 °C

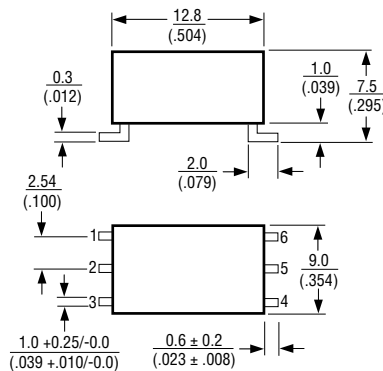
### Materials

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

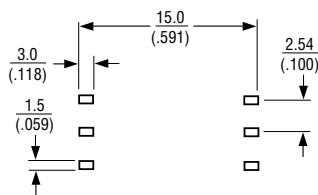
\*For use with recommended circuit (BS6305 impedance Class A non-speech or Class B speech).

\*\*SM-LP-5002 is symmetrical, meaning there is no real primary nor secondary winding.

### Product Dimensions



### Suggested PCB Layout



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

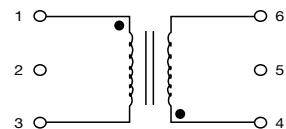
LEAD COPLANARITY:  $\frac{0.15}{(0.006)}$  MAX.

UNLESS OTHERWISE SPECIFIED, TOLERANCE:  $\pm 0.25$  (0.010) MAX.

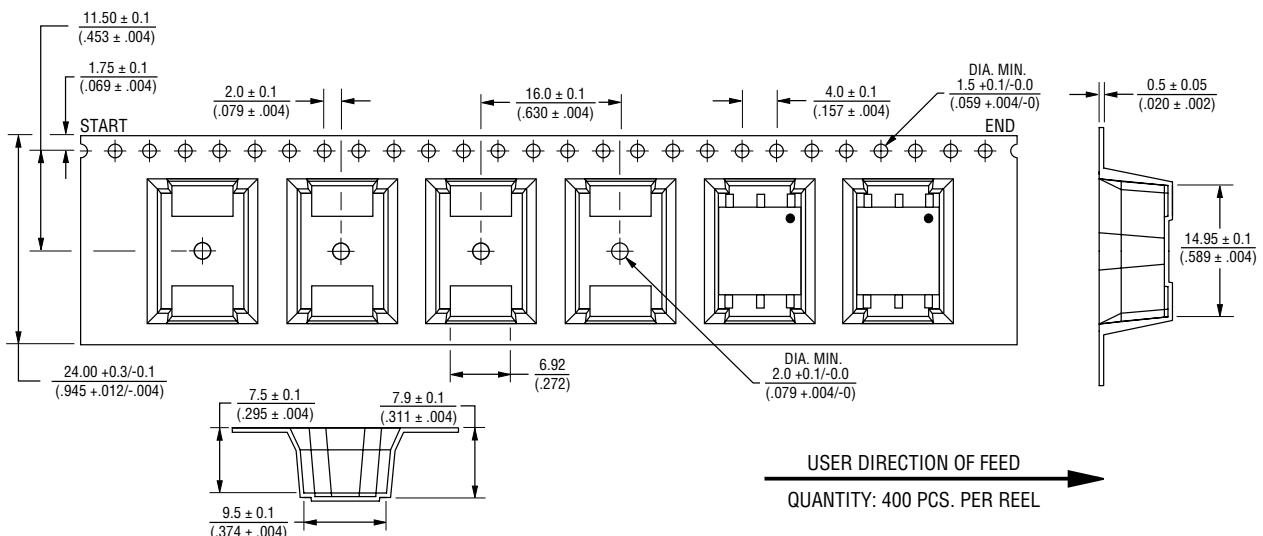
### How To Order

Model **SM-LP-5002**  
 Packaging \_\_\_\_\_  
 Blank = Packaged in tubes  
 E = Tape and reel (400 pcs. per reel)

### Schematic



### Packaging Specifications



REV. 07/16

\*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.