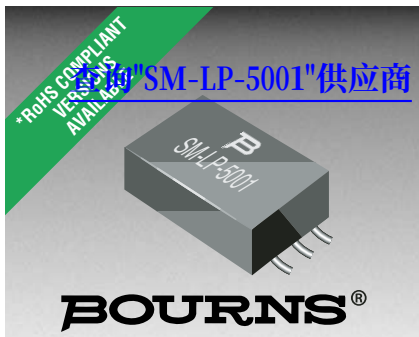




## Features

- Subminiature in SMT
- 7.36 mm seated height
- Tested at 4600 Vrms, 1 minute
- Distortion of only 0.015 %
- Vacuum encapsulated
- EN 60950, EN 41003, BS 415, BABT and UL approved

- Lead free version available (see How to Order)

- Lead free versions are RoHS compliant\*

## Applications

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

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

## Electrical Specifications

|                             |                                  |
|-----------------------------|----------------------------------|
| Nominal Impedance.....      | 600 $\Omega$                     |
| Turns Ratio.....            | 1:1                              |
| Insertion Loss .....        | 2.0 dB max. at 2 kHz             |
| Frequency Response .....    | $\pm 0.25$ 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 .....   | 4600 Vrms for 1 min.             |
| Insulation Resistance ..... | 100 M $\Omega$ @ 500 V           |
| DC Resistance** .....       |                                  |
| Primary .....               | 115 $\Omega \pm 15$ %            |
| Secondary .....             | 115 $\Omega \pm 15$ %            |
| Shunt Inductance.....       | 3.8 H min.                       |
| Shunt Loss.....             | 7500 $\Omega$ min.               |
| Leakage Inductance .....    | 6-7 mH @ 1 kHz                   |
| Power Level .....           | 10 dBm                           |
| Operating Temperature ..... | -20 °C to +85 °C                 |
| Storage Temperature .....   | -40 °C to +85 °C                 |

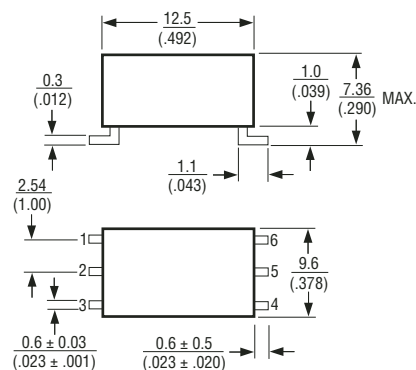
## Materials

Terminal Plating.....AgSn

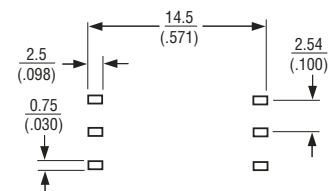
\*For use with recommended circuit (BS6305 impedance Class A non-speech or Class B speech).

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

## Product Dimensions



## Suggested PCB Layout

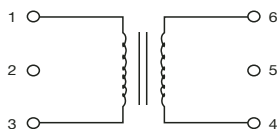


DIMENSIONS ARE:  $\frac{\text{MM}}{(\text{INCHES})}$

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

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

## Schematic



## How to Order

### SM-LP-5001

Model \_\_\_\_\_

Packaging \_\_\_\_\_

Blank = Packaged in tubes

E = Tape and reel (400 pcs. per reel)

Termination \_\_\_\_\_

Blank = Tin-lead: Date code 0513 or older

Blank = Tin only (lead free): Date code 0514 or newer