

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

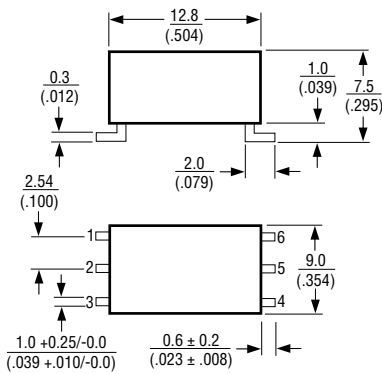
Materials

Terminal Plating Sn/Ag/Cu

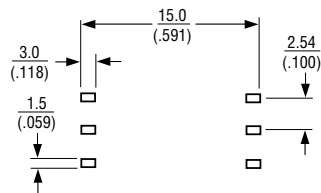
*For use with recommended circuit (BS6305 impedance Class A non-speech or Class B speech).

**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: ± 0.25 (0.010) MAX.

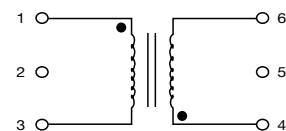
How To Order

Model **SM-LP-5002**

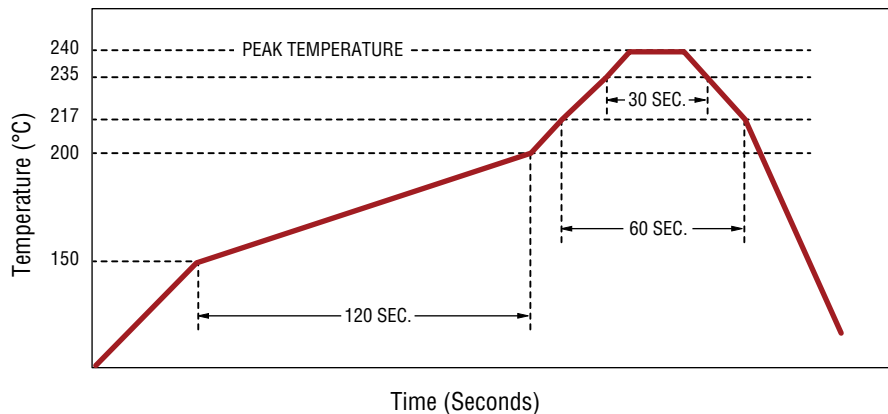
Packaging _____

Blank = Packaged in tubes
E = Tape and reel (400 pcs. per reel)

Schematic



Solder Profile



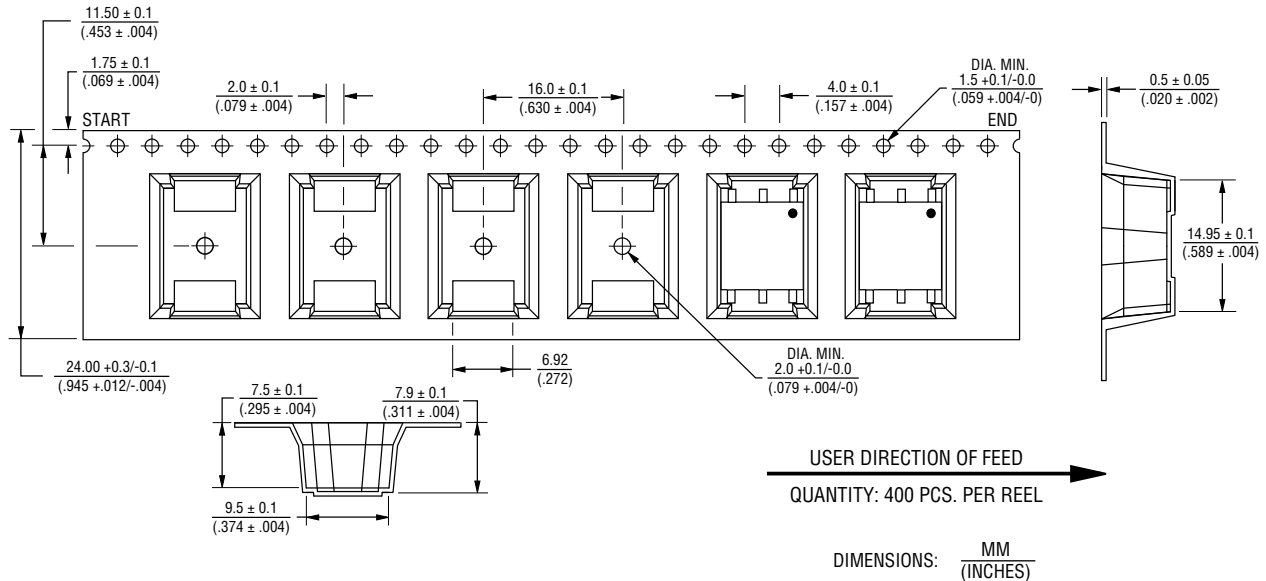
WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*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.

SM-LP-5002 Series - Surface Mount Line Matching Transformers

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Packaging Specifications



BOURNS®

Asia-Pacific: Tel: +886-2 2562-4117 • Email: asiacus@bourns.com

EMEA: Tel: +36 88 520 390 • Email: eurocus@bourns.com

The Americas: Tel: +1-951 781-5500 • Email: americus@bourns.com

www.bourns.com

REV. 05/17

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