



Features

- IEEE 802.3 Ethernet compatible
- Compatible with 1G/2.5G/5G BASE-T
- Discrete transformers and common mode chokes for flexible PCB layout
- Pairing common mode choke SRF2012A-801Y for EMI reduction
- Expanded temperature range: -40 to +85 °C
- RoHS compliant* and halogen free**

SM453230-181N7Y - 1 / 2.5 / 5 GbE Chip LAN Transformer

Electrical Specifications @ 25 °C

Inductance (Pin 1-2 & 6-7 / short 3-4)
 .. 180 μ H min. @ 100 kHz, 0.1 V, 0 mA
 Turns Ratio
 Pin 1-2 : 6-7 / short 3-4 : 1:1 \pm 3 %
 Insertion Loss (Pin 1-2)
 1-100 MHz -1.0 dB max.
 Capacitance (Pin 3-5 / short 3-4)
 35 pF Typ.
 Hi-Pot (Pin 1 to 6, short 3-4)
 1500 Vac, 60 s
 Operating Temperature -40 °C to +85 °C
 Storage Temperature -40 °C to +85 °C

Packaging Specifications

Tape & Reel 2000 pcs./reel

How To Order

SM453230 - 181 - N7Y

Model _____
 Packaging _____
 181 = Inductance code
 Termination _____
 N7 = Termination code
 Tolerance _____
 Y = Tolerance code

Typical Part Marking

No marking on part.

BOURNS®

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

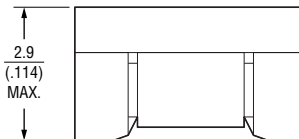
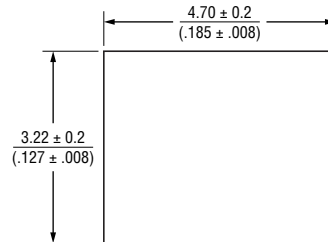
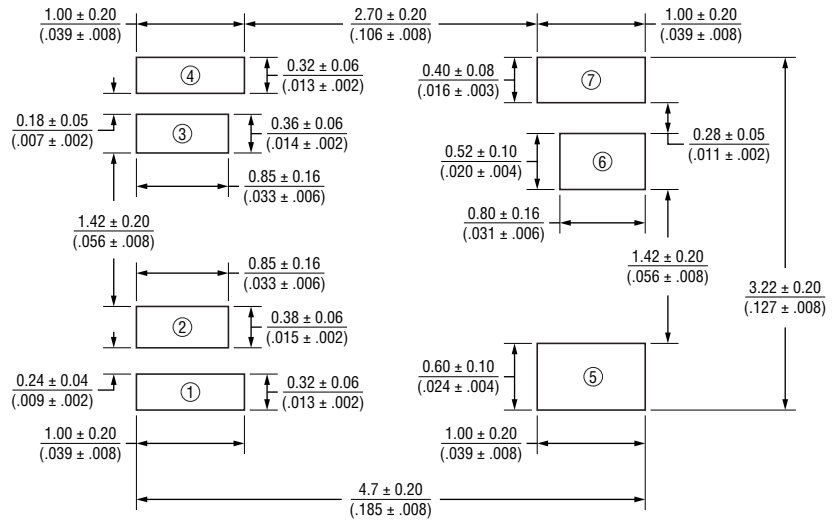
EMEA: Tel: +36 88 885 877
 Email: eurocus@bourns.com

The Americas: Tel: +1-951 781-5500
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Product Dimensions

Terminal Dimensions – Top View



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



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

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

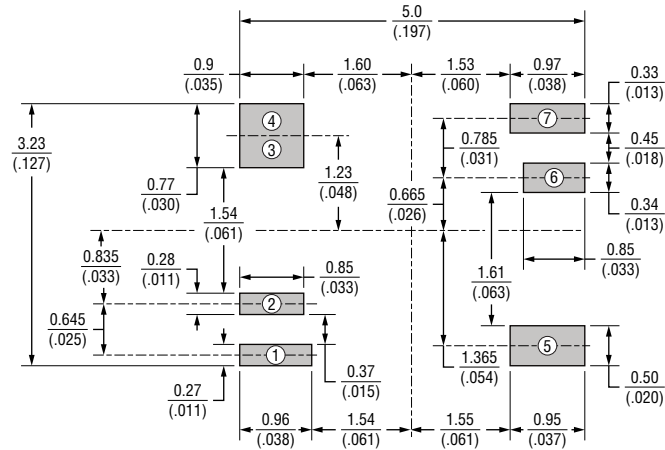
** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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SM453230-181N7Y - 1 / 2.5 / 5 GbE Chip LAN Transformer



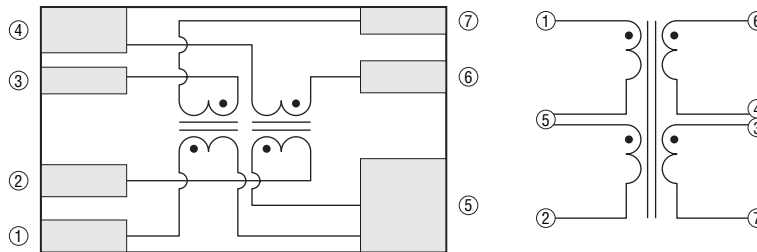
Recommended Layout



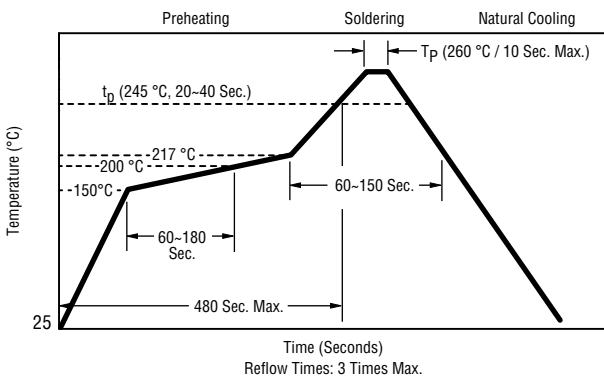
DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

Electrical Schematic

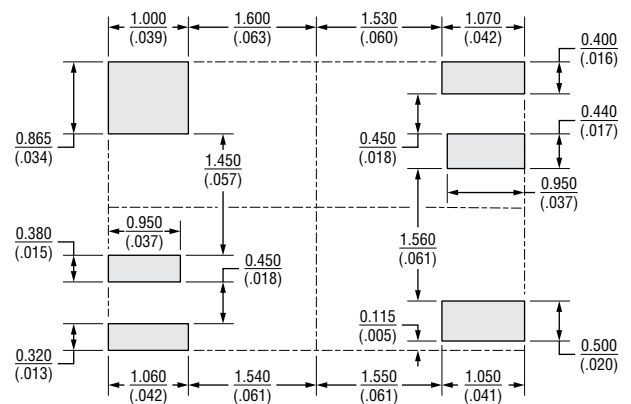
Top View



Solder Profile



Solder Paste Stencil Aperture Recommendation



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

Specifications are subject to change without notice.

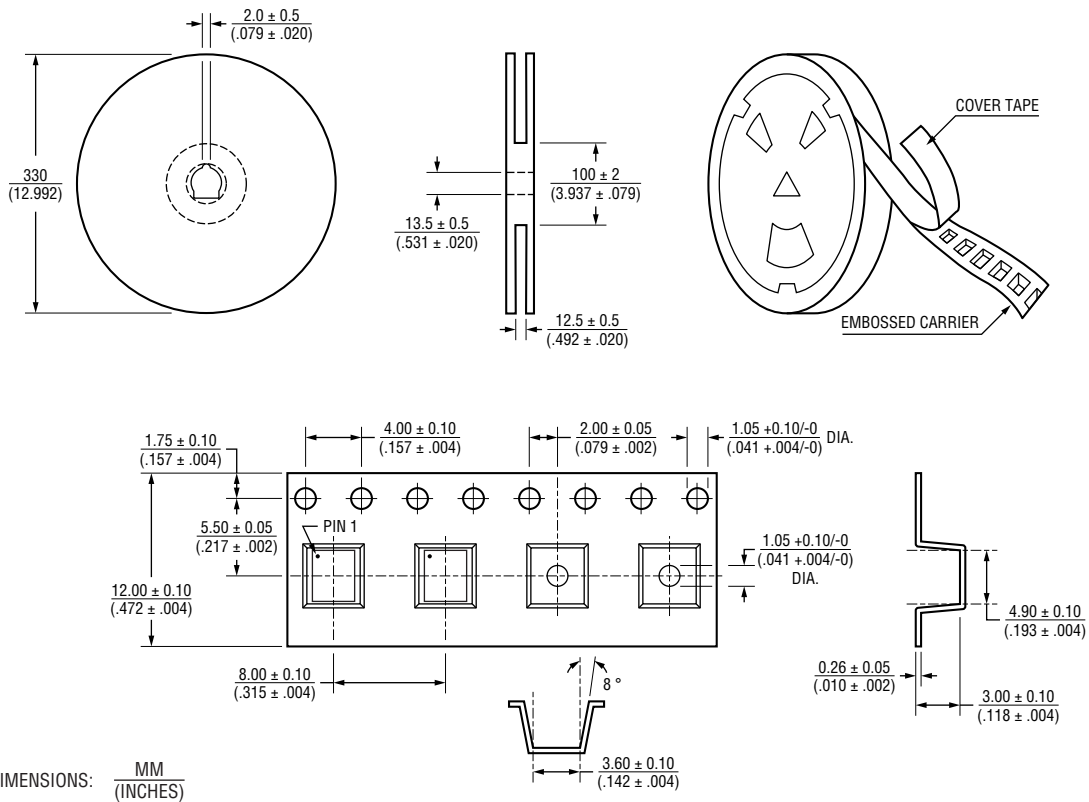
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SM453230-181N7Y - 1 / 2.5 / 5 GbE Chip LAN Transformer

BOURNS®

Packaging Specifications



USER DIRECTION OF FEED

QTY: 2000 PCS. PER REEL

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