



## Features

- IEEE 802.3 Ethernet compatible
- Compatible with 1G/2.5G/5G BASE-T
- Small size: 3.5 x 3.2 x 2.9 mm
- 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\*\*

## SM353230-181N7Y - 1 / 2.5 / 5 GbE Chip LAN Transformer

### Electrical Specifications @ 25 °C

Inductance (Pin 1-2 & 6-7 / short 3-4)  
 .. 180  $\mu$ 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 max.  
 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

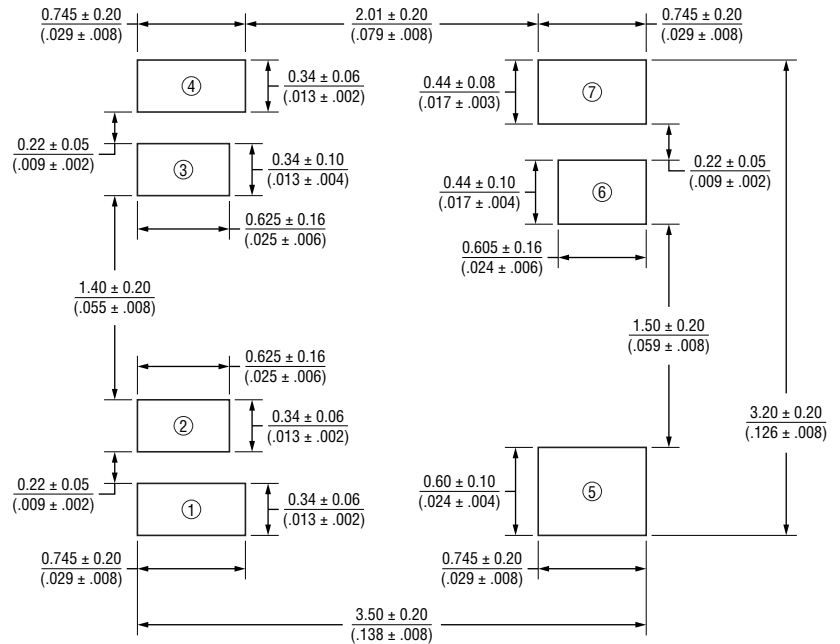
### How To Order

**SM353230 - 181 - N7Y**

Model \_\_\_\_\_  
 Packaging \_\_\_\_\_  
 181 = Inductance code  
 Termination \_\_\_\_\_  
 N7 = Termination code  
 Tolerance \_\_\_\_\_  
 Y = Tolerance code

### Product Dimensions

#### Terminal Dimensions – Top View



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



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

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

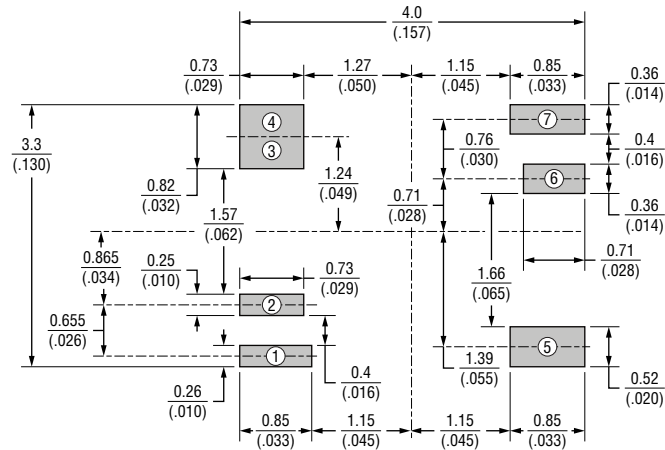
\*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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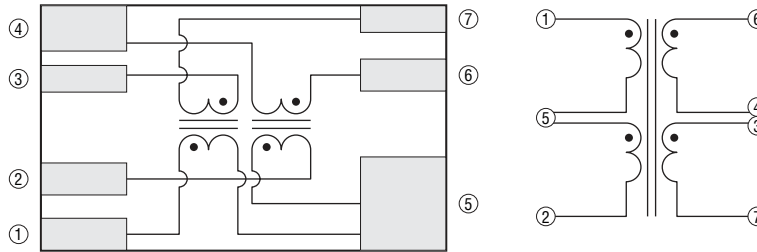


## Recommended Layout

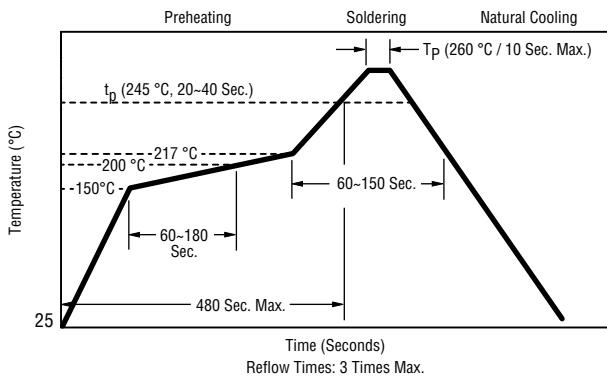


DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

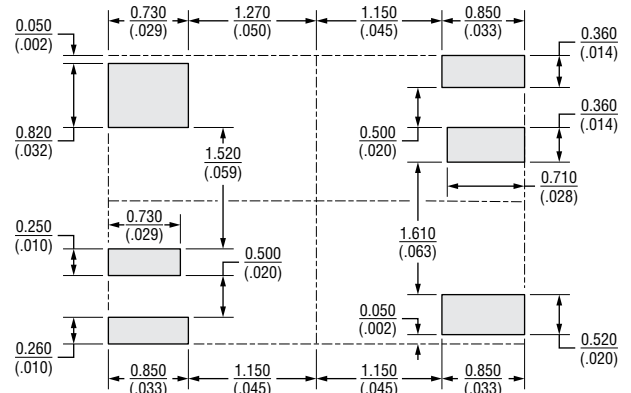
## Electrical Schematic



## Solder Profile



## Solder Paste Stencil Aperture Recommendation



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

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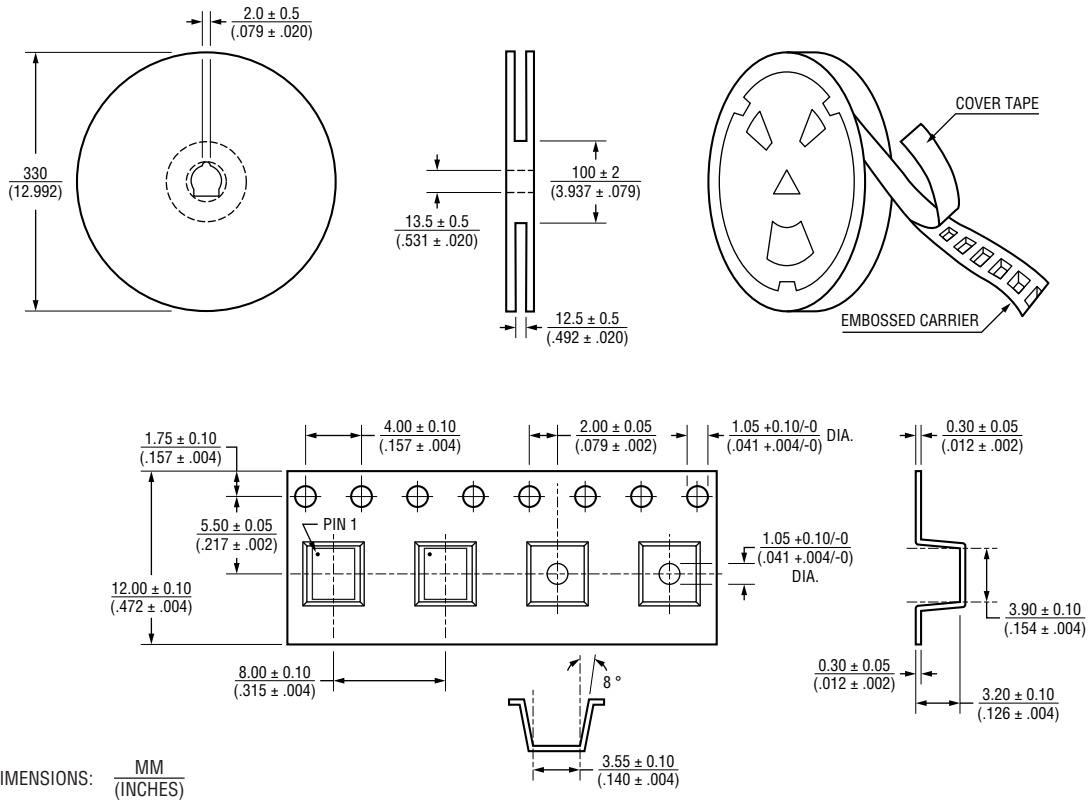
Users should verify actual device performance in their specific applications.

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# SM353230-181N7Y - 1 / 2.5 / 5 GbE Chip LAN Transformer

**BOURNS®**

## Packaging Specifications



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

USER DIRECTION OF FEED  $\rightarrow$

QTY: 2000 PCS. PER REEL

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