



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

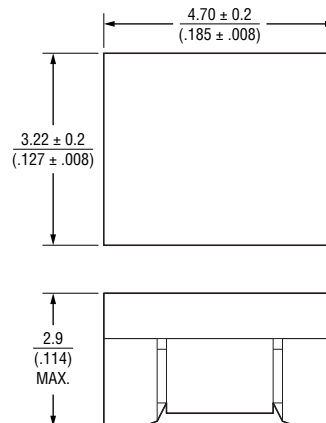
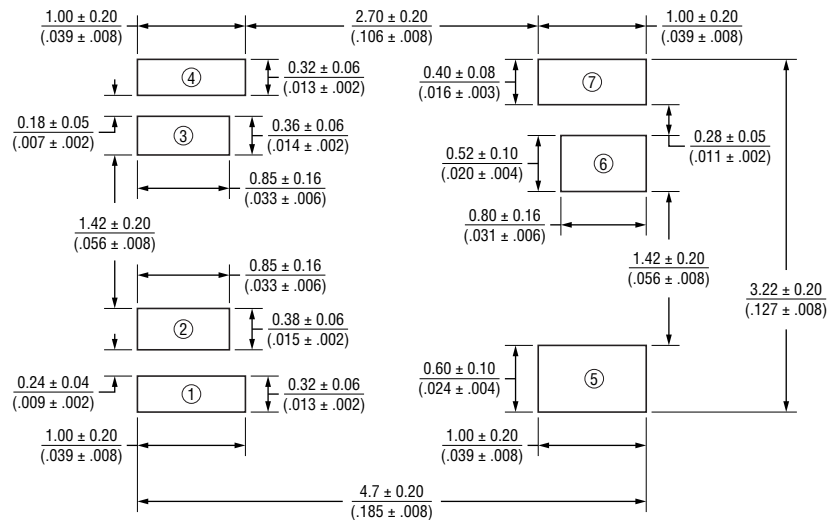
Model _____
 Packaging _____
 181 = Inductance code
 Termination _____
 N7 = Termination code
 Tolerance _____
 Y = Tolerance code

Typical Part Marking

No marking on part.

Product Dimensions

Terminal Dimensions – Top View



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

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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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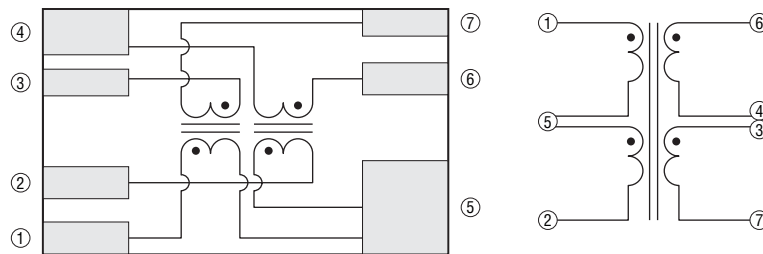
Figure 10 is a dimensioned drawing of a mechanical assembly. The overall width is 5.0 inches (127 mm) and the overall height is 3.23 inches (127 mm). The assembly consists of seven numbered components (1-7) and their dimensions are given in inches and millimeters.

Dimensions (inches / millimeters):

- Overall width: 5.0 (127)
- Overall height: 3.23 (127)
- Component 1: 0.27 (0.11) height, 0.96 (0.38) width
- Component 2: 0.28 (0.11) height, 0.85 (0.33) width
- Component 3: 0.77 (0.30) height, 1.23 (0.48) width
- Component 4: 0.9 (0.35) height, 1.60 (0.63) width
- Component 5: 1.365 (0.54) height, 0.95 (0.37) width
- Component 6: 0.34 (0.13) height, 0.85 (0.33) width
- Component 7: 0.45 (0.18) height, 0.97 (0.38) width
- Gap 1 (between 1 and 2): 0.645 (0.25)
- Gap 2 (between 2 and 3): 0.835 (0.33)
- Gap 3 (between 3 and 4): 0.0665 (0.026)
- Gap 4 (between 4 and 5): 1.53 (0.60)
- Gap 5 (between 5 and 6): 1.61 (0.63)
- Gap 6 (between 6 and 7): 0.785 (0.31)
- Gap 7 (between 7 and 8): 0.33 (0.13)
- Gap 8 (between 8 and 9): 0.45 (0.18)
- Gap 9 (between 9 and 10): 0.34 (0.13)
- Gap 10 (between 10 and 11): 0.85 (0.33)
- Gap 11 (between 11 and 12): 0.50 (0.20)

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

Top View



The graph illustrates the recommended temperature profile for reflow soldering, showing Temperature (°C) on the Y-axis and Time (Seconds) on the X-axis. The profile is divided into three main phases: Preheating, Soldering, and Natural Cooling.

Preheating Phase:

- Starts at 25°C.
- Rises to 150°C.
- Time duration: 60-180 Sec.
- Time from start to 150°C: 480 Sec. Max.
- Time to reach 200°C: t_0 (245 °C, 20-40 Sec.)
- Time to reach 217°C: 60-150 Sec.

Soldering Phase:

- Temperature range: 217°C to 260°C.
- Time duration: 260 °C / 10 Sec. Max.

Natural Cooling Phase:

- Cooling from 260°C down to 25°C.

Reflow Times: 3 Times Max.

Figure 1 is a detailed dimensioned drawing of a mechanical part, showing a top view and a side view. The top view is a rectangle with a central rectangular cutout. The side view shows the profile of the part, including a vertical flange on the left and a horizontal base. Dimensions are provided in inches and millimeters. Key dimensions include: overall width 1.000 (.039), overall height 0.865 (.034), central cutout width 0.950 (.037), central cutout height 0.450 (.018), and various other features like the 0.400 (.016) top flange, 0.450 (.018) side flange, and 0.500 (.020) base flange.

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

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Technical drawing of a 16-pin D-subminiature connector, showing front, side, and detail views with dimensions in mm and inches.

Front View Dimensions:

- Overall Width: 330 ± 0.5 (12.992)
- Pin Pitch: 2.0 ± 0.5 (.079 ± .020)
- Pin 1 Location: 13.5 ± 0.5 (.531 ± .020)
- Pin 16 Location: 100 ± 2 (3.937 ± .079)
- Pin 1 to Pin 16 Distance: 12.5 ± 0.5 (.492 ± .020)

Side View Dimensions:

- Overall Height: 12.00 ± 0.10 (.472 ± .004)
- Pin 1 to Pin 16 Distance: 8.00 ± 0.10 (.315 ± .004)
- Pin 1 to Pin 16 Distance: 4.00 ± 0.10 (.157 ± .004)
- Pin 1 to Pin 16 Distance: 2.00 ± 0.05 (.079 ± .002)
- Pin 1 to Pin 16 Distance: $1.05 \pm 0.10/-0$ (.041 ± .004/-0) DIA.
- Pin 1 to Pin 16 Distance: $1.05 \pm 0.10/-0$ (.041 ± .004/-0) DIA.
- Pin 1 to Pin 16 Distance: 4.90 ± 0.10 (.193 ± .004)
- Pin 1 to Pin 16 Distance: 3.00 ± 0.10 (.118 ± .004)
- Pin 1 to Pin 16 Distance: 0.26 ± 0.05 (.010 ± .002)
- Pin 1 to Pin 16 Distance: 3.60 ± 0.10 (.142 ± .004)
- Pin 1 to Pin 16 Distance: 8°

Detail View Dimensions:

- Overall Width: 330 ± 0.5 (12.992)
- Pin Pitch: 2.0 ± 0.5 (.079 ± .020)
- Pin 1 Location: 13.5 ± 0.5 (.531 ± .020)
- Pin 16 Location: 100 ± 2 (3.937 ± .079)
- Pin 1 to Pin 16 Distance: 12.5 ± 0.5 (.492 ± .020)

Labels:

- Cover Tape
- Embossed Carrier

Dimensions: MM (INCHES)

QTY: 2000 PCS. PER REEL

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