

#### **Features**

- IEEE 802.3 Ethernet compatible
- Compatible with 10/100/1000 BASE-T
- Discrete transformers and common mode chokes for flexible PCB layout
- Pairing common mode chip inductor Model SRF2012A-801Y for EMI reduction
- Expanded temperature range: -40 to +105 °C
- AEC-Q200 Compliant
- RoHS compliant\* and halogen free\*\*

## SM453229A-381N7Y - 10/100/1000 Base-T Chip LAN Transformer

### Electrical Specifications @ 25 °C

# Packaging Specifications

Operating Temperature

Storage Temperature

Tape & Reel......2000 pcs./reel

.....-40 °C to +105 °C

#### **How To Order**

### 

#### **Additional Information**

Click these links for more information:







TECHNICAL INVENTORY SAMPLES

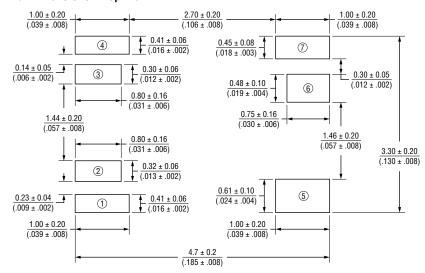


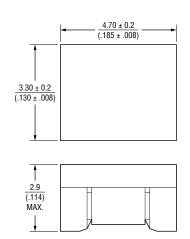


CONTACT

#### **Product Dimensions**

#### **Terminal Dimensions - Top View**





DIMENSIONS: MM (INCHES)

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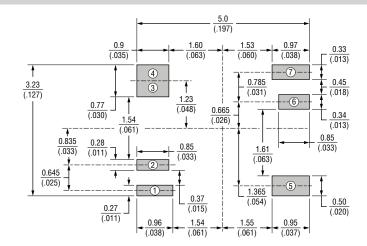
### WARNING Cancer and Reproductive Harm www.P65Warnings.ca.gov

- \* 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.

# SM453229A-381N7Y - 10/100/1000 Base-T Chip LAN Transformer

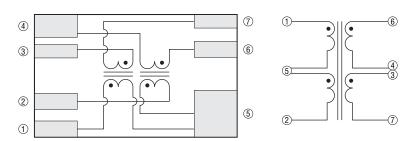
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### **Recommended Layout**

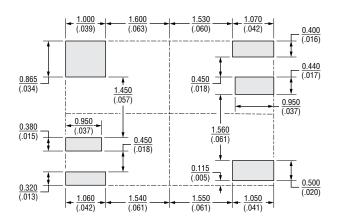


### **Electrical Schematic**

### **Top View**



### **Solder Paste Stencil Aperture Recommendation**

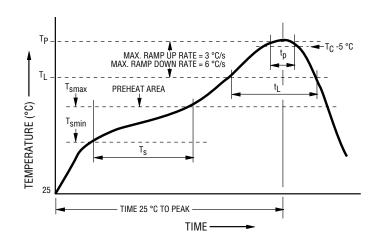


DIMENSIONS:  $\frac{MM}{(INCHES)}$ 

# SM453229A-381N7Y - 10/100/1000 Base-T Chip LAN Transformer

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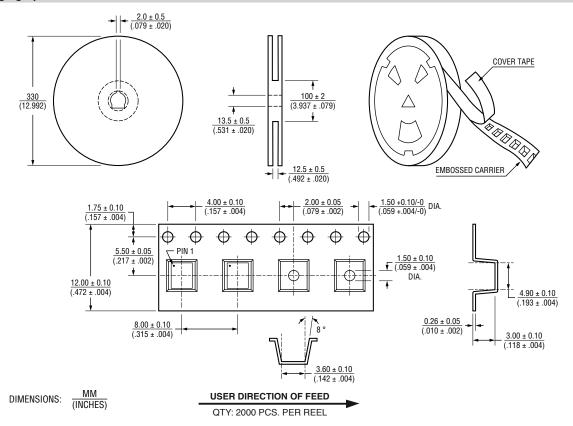
### **Solder Reflow Recommendations**



Profile Feature	Pb-Free Assembly
Preheat / Soak: Temperature Min. (T <sub>smin</sub> ) Temperature Max. (T <sub>smax</sub> ) Time (t <sub>s</sub> ) from (T <sub>smin</sub> to T <sub>smax</sub> )	150 °C 200 °C 60~120 seconds
Ramp Up Rate (T <sub>L</sub> to T <sub>p</sub> )	3 °C / second max.
Liquidous Temperature (T <sub>L</sub> ) Time (t <sub>L</sub> ) maintained above T <sub>L</sub>	217 °C 60~150 seconds
Peak Package Body Temperature (T <sub>p</sub> )	250 °C
Time $(t_p)^*$ within 5 °C of the specified classification temperature $(T_c)$	< 30 seconds*
Ramp Down Rate (T <sub>p</sub> to T <sub>L</sub> )	6 °C / second max.
Time 25 °C to Peak Temperature	8 minutes max.

<sup>\*</sup>Tolerance for peak profile temperature  $(T_p)$  is defined as a supplier minimum and a user maximum.

### **Packaging Specifications**



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