



Features

- IEEE 802.3 Ethernet compatible
- Discrete transformers and common mode chokes for flexible PCB layout
- Pair with common mode choke SRF2012A-801Y for EMI reduction
- Expanded temperature range: -40 to +85 °C
- RoHS compliant*

SM453229-381N7Y - 10/100/1000 Base-T Chip LAN Transformer

Electrical Specifications at 25 °C

Inductance

@ 100 kHz, 0.1 V, 0 mADC
(Pin 1-2 & 3-4 / short 6-7)

..... 380 μ H min.

Inductance – DC Bias

@ 100 kHz, 0.1 V, 8 mA DC
(Pin 1-2 & 3-4 / short 6-7)

..... 350 μ H min.

Turns Ratio ($\pm 3\%$)

Pin 1-2 & 3-4 / short 6-7 1 : 1

Insertion Loss (1-100 MHz)

..... -1.5 dB max.

Capacitance (Pin 3-4).....35 pF typ.

Hi-Pot (Pin 1 to 6, short 3-4)

..... 1500 VAC, 60 sec.

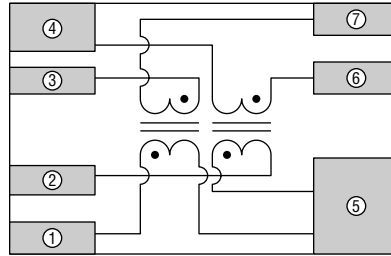
Pulse Voltage.....2400 V, 1.2/50 μ S

Operating Temperature.....-40 to +85 °C

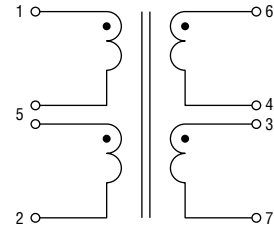
Storage Temperature.....-40 to +85 °C

Packaging.....2000 pcs. / reel

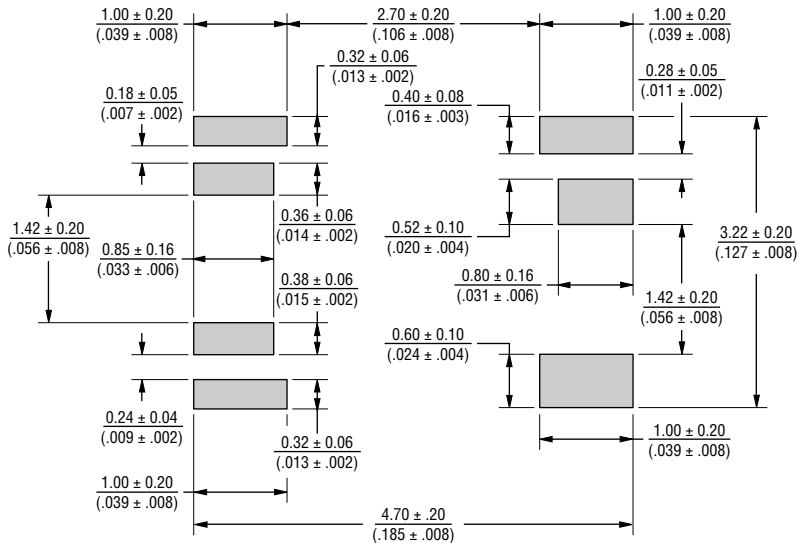
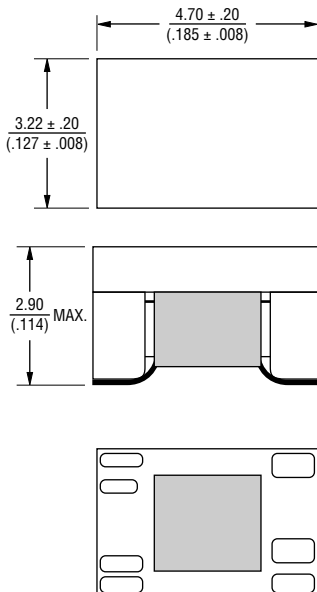
Electrical Schematic



TOP VIEW



Product Dimensions



TOP VIEW

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



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.

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

The graph illustrates the temperature profile for a soldering process, divided into three main phases: PRE-HEATING, SOLDERING, and NATURAL COOLING.

- PRE-HEATING:** The temperature starts at 25°C and rises to 150°C. This phase is labeled with a duration of 60 ~ 180 seconds. The total pre-heating time is indicated as 480 seconds max.
- SOLDERING:** The temperature continues to rise from 150°C to 200°C (60 ~ 150 seconds) and then to 217°C (60 ~ 150 seconds). The peak temperature is 217°C. The total time for the soldering phase is 60 ~ 150 seconds. The peak temperature is also labeled as T_P (260 °C / 10 seconds max.).
- NATURAL COOLING:** The temperature decreases from the peak of 217°C back to 25°C.

Key temperature points and durations are summarized in the table below:

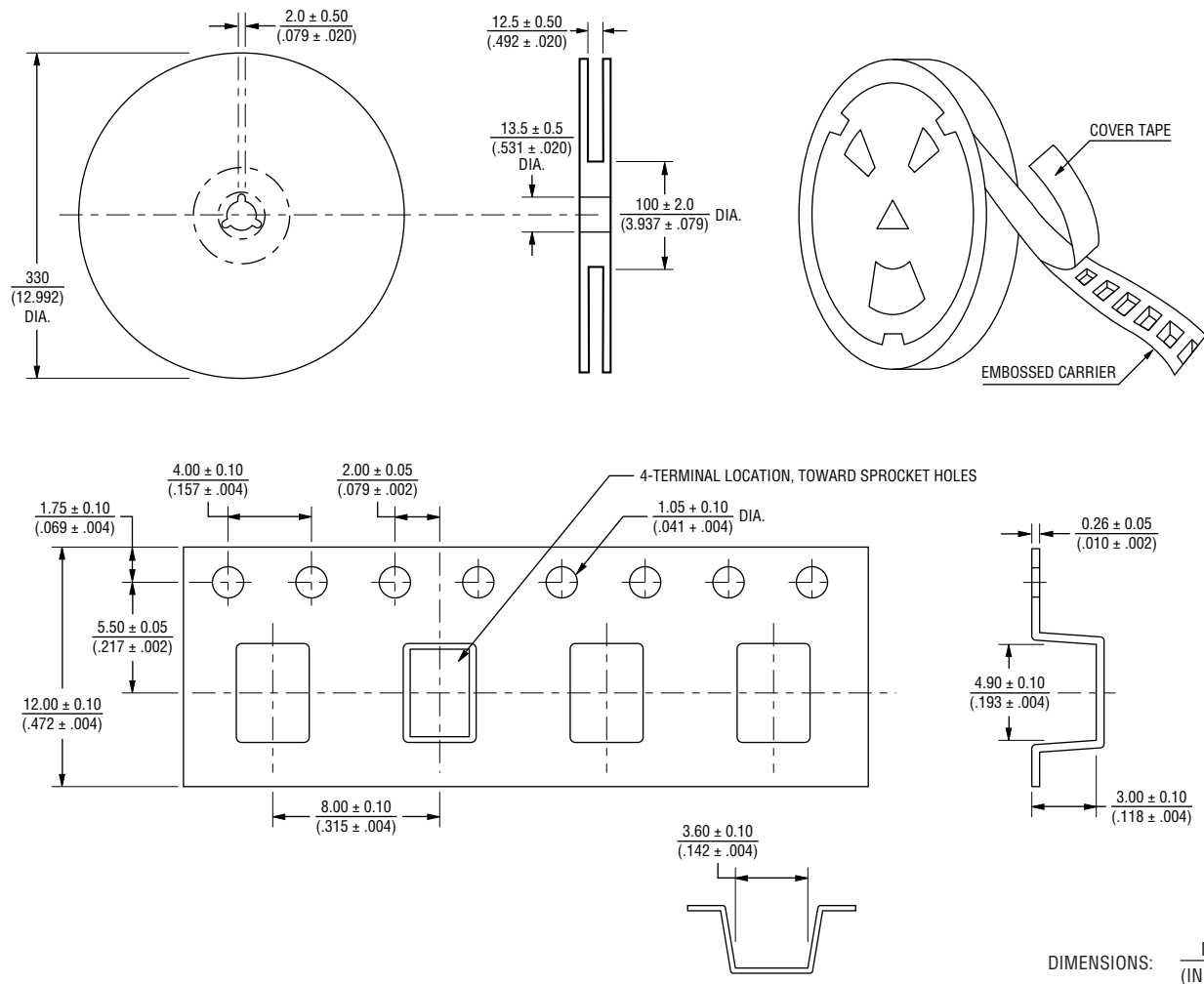
Phase	Temperature (°C)	Duration (Seconds)
Pre-heating (1)	25 to 150	60 ~ 180
Pre-heating (2)	150 to 200	60 ~ 150
Pre-heating (3)	200 to 217	60 ~ 150
Soldering	217	60 ~ 150
Total Pre-heating	25 to 217	480 seconds max.

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SM453229-3811N7Y - 10/100/1000 Base-T Chip LAN Transformer

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Packaging Specifications



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