



Features

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

SM453229-231N7Y - 10/100/1000 Base-T PoE+ Chip LAN Transformer

Electrical Specifications at 25 °C

Inductance

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

..... 230 μ H min.

Inductance – DC Bias

@ 100 kHz, 0.1 V, 15 mA DC
(Pin 1-2 & 6-7 / short 3-4)

..... 200 μ H min.

Turns Ratio ($\pm 3\%$)

(Pin 1-2 : 6-7 / short 3-4)..... 1 : 1

Insertion Loss (1-100 MHz)

.....-1.5 dB max.

Capacitance

(Pin 5-3 / short 3-4).....35 pF typ.

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

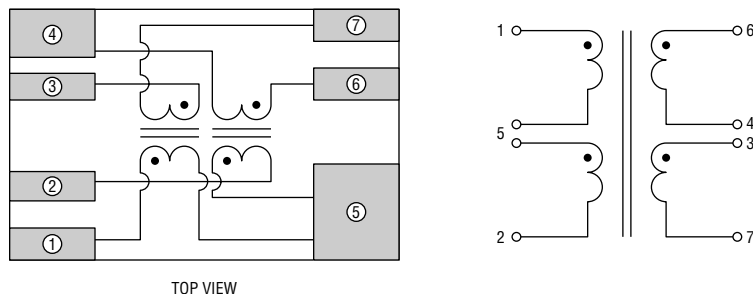
..... 1500 VAC, 60 sec.

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

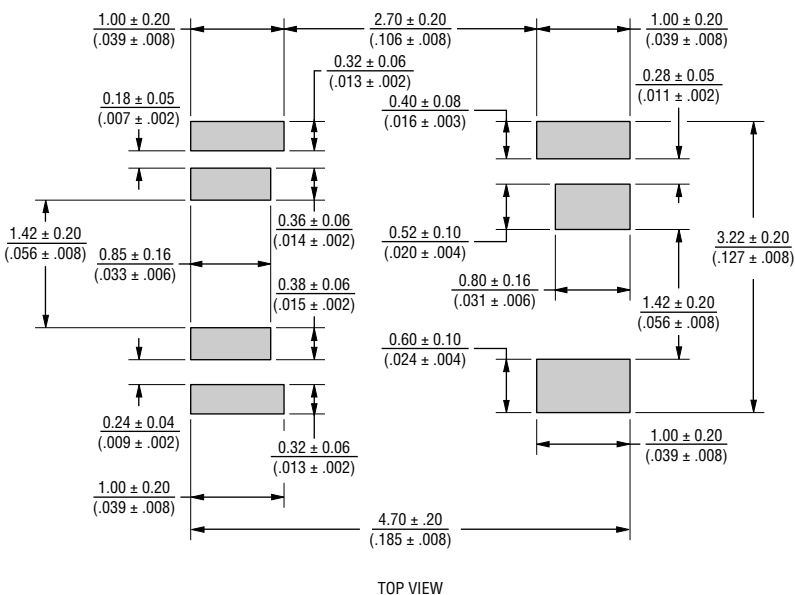
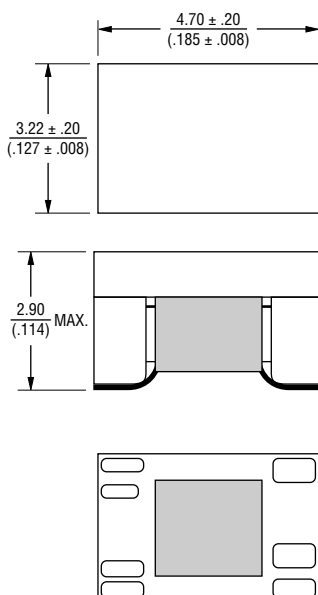
Storage Temperature.....-40 to +85 °C

Packaging..... 2000 pcs. / reel

Electrical Schematic



Product Dimensions



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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Figure 1 is a detailed dimensioned layout of a 1000 mm wide, 1000 mm high floor slab. The slab is divided into seven numbered rectangular zones (1-7) by a grid of beams. Dimensions are given in millimeters (mm) and inches (in). The total width is 1000 mm (39.37 in) and the total height is 1000 mm (39.37 in). The layout includes various offsets and clearances for each zone and the surrounding beams.

Zone	Width (mm)	Width (in)	Height (mm)	Height (in)
1	154	6.06	155	6.10
2	154	6.06	155	6.10
3	160	6.29	155	6.10
4	160	6.29	155	6.10
5	155	6.10	155	6.10
6	153	6.02	155	6.10
7	153	6.02	155	6.10

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 divided into two sub-phases:
 - From 25°C to 150°C: 60 ~ 180 seconds.
 - From 150°C to 200°C: 60 ~ 150 seconds.
 - Total pre-heating time: 480 seconds max.
- SOLDERING:** The temperature is held at 217°C for 20-40 seconds. The total time at 217°C is 60 ~ 150 seconds.
- NATURAL COOLING:** The temperature decreases from 217°C back to 25°C.

Key temperature points and time intervals are marked on the graph:

- Temperature (°C): 25, 150, 200, 217.
- Time (Seconds): 60 ~ 180, 60 ~ 150, 480 seconds max.
- Temperature (°C) / Time (Seconds) for Soldering: t_p (245 °C / 20-40 seconds), T_p (260 °C / 10 seconds max.).

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