





# SMT Current Sense Transformers

PA0368.XXXNL



-  **Height:** 3.3mm Max
-  **Footprint:** 8.4mm x 8.4mm Max
-  **Current Rating:** up to 4A
-  **Frequency Range:** 50kHz to 1MHz

Electrical Specifications @ 25°C - Operating Temperature -40°C to +130°C<sup>6</sup>

Part <sup>4,5</sup> Number	Turns Ratio	Current <sup>1</sup> Rating	Secondary Inductance (mH MIN)	DCR (mΩ MAX)		Hipot (V <sub>RMS</sub> )
				Primary	Secondary	
PA0368.050NL	1:50	4	1.7	4	900	500
PA0368.070NL	1:70	4	3.3	4	1200	500
PA0368.080NL	1:80	4	4.3	4	1400	500
PA0368.100NL	1:100	4	6.7	4	1600	500
PA0368.125NL	1:125	4	10.4	4	1900	500

## Notes:

- The maximum current rating is based upon temperature rise of the component and represents the DC current which will cause a typical temperature rise of 40°C with no airflow.
- To calculate value of terminating resistor (Rt) use the following formula:  

$$R_t (W) = V_{ref} * N / (I_{peak\_primary})$$
- The peak flux density of the device must remain below 2000 Gauss. To calculate the peak flux density for uni-polar current use following formula:  

$$B_{pk} = 64.9 * V_{ref} * (Duty\_Cycle\_Max) * 10^5 / (N * Freq\_kHz)$$

\* for bi-polar current applications divide Bpk (as calculated above) by 2.
- Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PA0368.050NL becomes PA0368.050NLT). Pulse complies to industry standard tape and reel specification EIA481.
- The "NL" suffix indicates an RoHS-compliant part number. Non-NL suffixed parts are not necessarily RoHS compliant, but are electrically and mechanically equivalent to NL versions. If a part number does not have the "NL" suffix, but an RoHS compliant version is required, please contact Pulse for availability.
- The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature ranger.

# SMT Current Sense Transformers

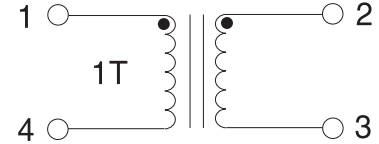
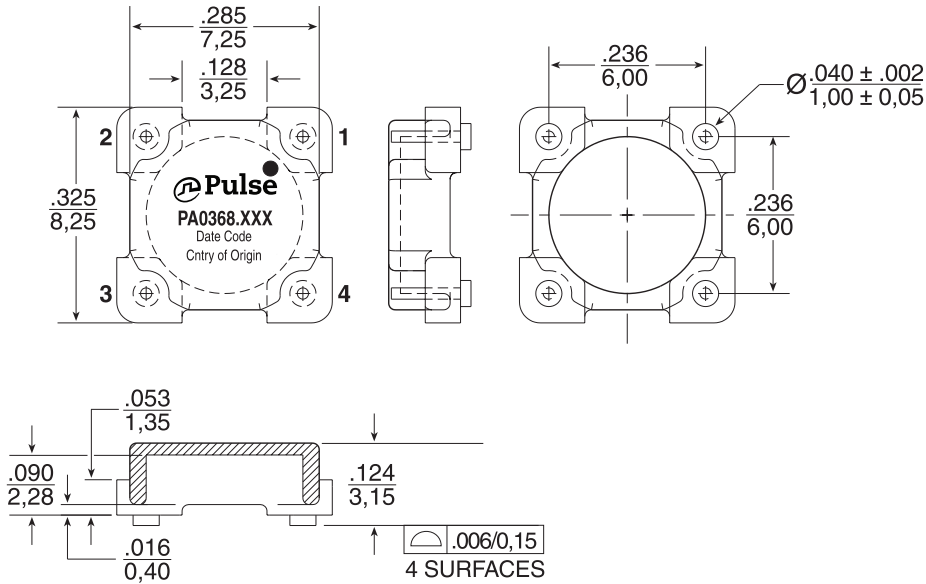
PA0368.XXXNL



## Mechanical

## Schematic

PA0368.XXX

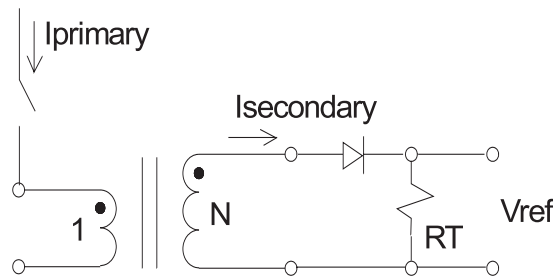


Weight .....0.30grams

Tape & Reel .....1100/reel

Dimensions:  $\frac{\text{Inches}}{\text{mm}}$   
Unless otherwise specified,  
all tolerances are:  $\pm \frac{.010}{0,25}$

## Application



APPLICATION CIRCUIT

### For More Information

#### Pulse Worldwide Headquarters

15255 Innovation Drive Ste 100  
San Diego, CA 92128  
U.S.A.

#### Pulse Europe

Pulse Electronics GmbH  
Am Rottland 12  
58540 Meinerzhagen  
Germany

#### Pulse China Headquarters

Pulse Electronics (Shenzhen) CO., LTD  
D708, Shenzhen Academy of  
Aerospace Technology,  
The 10th Keji South Road,  
Nanshan District, Shenzhen,  
P.R. China 518057

#### Pulse North China

Room 2704/2705  
Super Ocean Finance Ctr.  
2067 Yan An Road West  
Shanghai 200336  
China

#### Pulse South Asia

3 Fraser Street 0428  
DUO Tower  
Singapore 189352

#### Pulse North Asia

1F., No.111 Xiyuan Road  
Zhongli District  
Taoyuan City 32057  
Taiwan (R.O.C)

Tel: 858 674 8100  
Fax: 858 674 8262

Tel: 49 2354 777 100  
Fax: 49 2354 777 168

Tel: 86 755 33966678  
Fax: 86 755 33966700

Tel: 86 21 62787060  
Fax: 86 2162786973

Tel: 65 6287 8998  
Fax: 65 6280 0080

Tel: 886 3 4356768  
Fax: 886 3 4356820

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2019. Pulse Electronics, Inc. All rights reserved.