SMT Current Sense Transformer

P820X Series

- ***Height:*** *5.5mm Max*
- ***Footprint:*** *8.4mm x 7.2mm Max*
- ***Current Rating:*** *up to 10A*
- ***Frequency Range:*** *20kHz to 1MHz*
- *Lower Primary DCR version available: PA1005.XXX series*

Electrical Specifications @ 25°C – Operating Temperature -40°C to +130°C

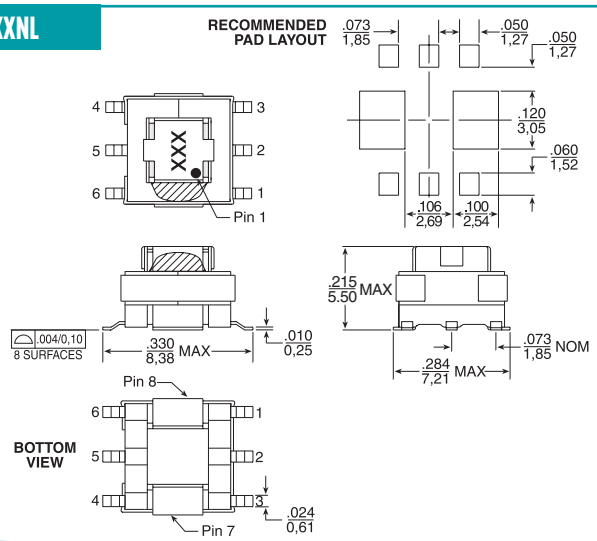
Part [6,7] Number	Turns Ratio	Current [2] Rating (A)	Secondary Inductance (mH MIN)	DCR (mΩ MAX) Primary (8-7)	DCR (mΩ MAX) Secondary (1-3)	Hipot (V_{RMS})
P8202NL	1:20	10	0.08	6	550	500
P8203NL	1:30	10	0.18	6	870	500
P8204NL	1:40	10	0.32	6	1140	500
P8205NL	1:50	10	0.50	6	1500	500
P8206NL	1:60	10	0.72	6	2250	500
P8207NL	1:70	10	0.98	6	4700	500
P8208NL	1:100	10	2.00	6	5500	500
P8209NL	1:125	10	3.00	6	6500	500

Notes:

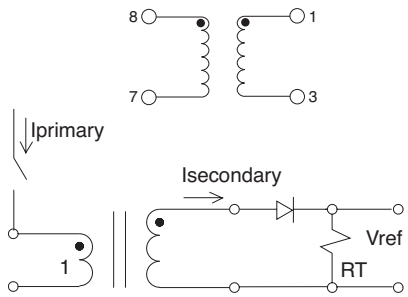
1. The temperature of the component (ambient temperature plus temperature rise) must be within the specified operating temperature range.
2. The maximum current rating is based upon temperature rise of the component and represents the DC current which will cause a typical temperature rise of 40C with no airflow.
3. To calculate the value of the terminating resistor (Rt) use the following formula:
   Rt (Ω) = Vref * N / (Ipeak_primary)
4. 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:
   $B_{PK} = 37.59 * V_{REF} * (Duty_Cycle_Max) * 10^5 / (N * Freq_kHz)$
   * for bi-polar current applications divide B_{PK} (as calculated above) by 2.
5. Part number **P8222** to **P8229** are reverse polarity versions of **P820X**.
6. Optional Tape & Reel packaging can be ordered by adding a "**T**" suffix to the part number (i.e. P8202NL becomes P8202NL**T**). Pulse complies to industry standard tape and reel specification EIA481.
7. 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.

Mechanical

PXXXXNL



Schematic



APPLICATION CIRCUIT

Weight .....0.34 grams
Tray 120/tray
Tape & Reel 900/reel
Coplanarity .....0.004 inches

Dimension: Inches / mm Unless otherwise specified, all tolerances are ± .010 / 0,25

For More Information

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

Tel: 858 674 8100
Fax: 858 674 8262

Pulse Europe
Pulse Electronics GmbH
Am Rottland 12
58540 Meinerzhagen
Germany

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

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

Tel: 86 755 33966678
Fax: 86 755 33966700

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

Tel: 86 21 62787060
Fax: 86 2162786973

Pulse South Asia
3 Fraser Street
0428 DUO Tower
Singapore 189352

Tel: 65 6287 8998
Fax: 65 6280 0080

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

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, 2018. Pulse Electronics, Inc. All rights reserved.