



**THE DATASHEET OF  
PA0648NL**



# SMT TRANSFORMERS

## Low Power Flyback Transformers (Up to 2W)

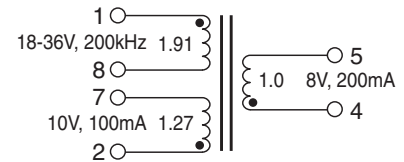
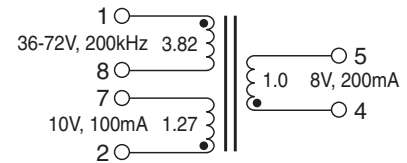
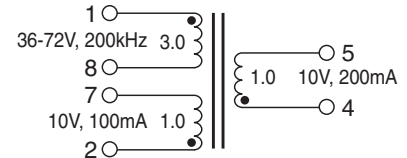


- Height:** 7.6mm Max
- Footprint:** 9.0mm x 8.6mm Max
- 1500V<sub>DC</sub> Hi-Pot with Basic Insulation (1.4mm creepage/clearance)**

### Electrical Specifications @ 25°C — Operating Temperature -40°C to 130°C<sup>5</sup>

| Part Number | Parameter       | Value                        | Notes              |
|-------------|-----------------|------------------------------|--------------------|
| PA0648NL    | Pri. Inductance | (1-8)                        | 247µH ±20%         |
|             | Pri. Inductance | (1-8)                        | 170µH MIN @ 0.5Apk |
|             | Lk. Inductance  | (1-8) with (2,4,5,7) shorted | 5.5µH MAX          |
|             | DCR             | (1-8)                        | 2100mΩ MAX         |
|             |                 | (2-7)                        | 750mΩ MAX          |
|             |                 | (4-5)                        | 750mΩ MAX          |
|             | Hi-Pot          | Pri-Sec                      | 1500Vdc            |
| K1 Factor   |                 | 6838                         |                    |
| PA1546NL    | Pri. Inductance | (1-8)                        | 247µH ±20%         |
|             | Pri. Inductance | (1-8)                        | 170µH MIN @ 0.5Apk |
|             | Lk. Inductance  | (1-8) with (2,4,5,7) shorted | 8µH MAX            |
|             | DCR             | (1-8)                        | 2100mΩ MAX         |
|             |                 | (2-7)                        | 750mΩ MAX          |
|             |                 | (4-5)                        | 700mΩ MAX          |
|             | Hi-Pot          | Pri-Sec                      | 1500Vdc            |
| K1 Factor   |                 | 6838                         |                    |
| PA1788NL    | Pri. Inductance | (1-8)                        | 62µH ±20%          |
|             | Pri. Inductance | (1-8)                        | 35µH MIN @ 1.0Apk  |
|             | Lk. Inductance  | (1-8) with (2,4,5,7) shorted | 3µH MAX            |
|             | DCR             | (1-8)                        | 720mΩ MAX          |
|             |                 | (2-7)                        | 750mΩ MAX          |
|             |                 | (4-5)                        | 700mΩ MAX          |
|             | Hi-Pot          | Pri-Sec                      | 1500Vdc            |
| K1 Factor   |                 | 3422                         |                    |

### Schematics

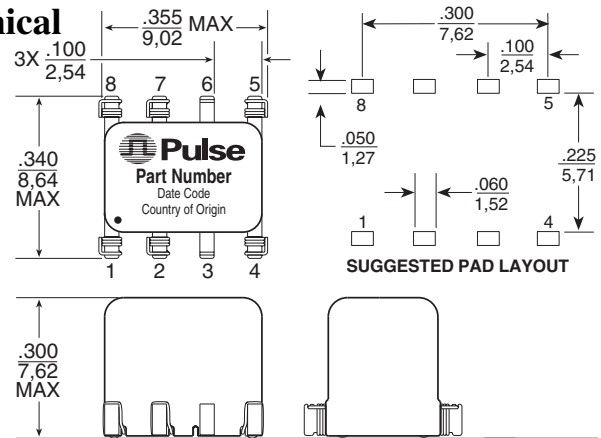


### NOTES:

- The peak flux density of the component should be kept below 3400 Gauss (25°C) and 2900 Gauss (100°C). To calculate the peak flux density in a given application, use the following formula:  

$$B_{pk} \text{ (Gauss)} = K1\_Factor * I_{primary\_pk}$$
- Leakage inductance is measured at primary terminals with all secondaries shorted.
- Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PA0648NL becomes PA0648NLT). 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 range.

### Mechanical



Weight . . . . . 0.60 grams  
 Tape & Reel . . . . . 400/reel  
 Tube . . . . . 50/tube

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

### For More Information:

#### Pulse Worldwide Headquarters

12220 World Trade Dr.  
 San Diego, CA 92128  
 U.S.A.

[www.pulseeng.com](http://www.pulseeng.com)

Tel: 858 674 8100  
 Fax: 858 674 8262

#### Pulse Europe

Einsteinstrasse 1  
 D-71083 Herrenberg  
 Germany

Tel: 49 7032 7806 0  
 Fax: 49 7032 7806 12

#### Pulse China Headquarters

B402, Shenzhen Academy of  
 Aerospace Technology Building  
 10th Kejinan Rd.  
 High-Tech Zone  
 Nanshan District, Shenzhen  
 P.R. China 518057

Tel: 86 755 33966678  
 Fax: 86 755 33966700

#### Pulse North China

Room 1503  
 XinYin Building  
 No. 888 YiShan Rd.  
 Shanghai 200233  
 China

Tel: 86 21 32181071  
 Fax: 86 21 32181396

#### Pulse South Asia

150 Kampong Ampat  
 #07-01/02  
 KA Centre  
 Singapore 368324

Tel: 65 6287 8998  
 Fax: 65 6280 0080

#### Pulse North Asia

No. 26  
 Kao Ching Rd.  
 Yang Mei Chen  
 Taoyuan Hsien  
 Taiwan, R. O. C.  
 32667

Tel: 886 3 4643715  
 Fax: 886 3 4641911

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, 2008. Pulse Engineering, Inc. All rights reserved.

[www.pulseeng.com](http://www.pulseeng.com)

P665.A (3/08)

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

 [View PA0648NL on WIN SOURCE](#)

 [Pulse Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management