High Isolation Gate Drive Transformers

- *Rugged design for Industrial Applications*
- *UL recognized, TUV approved to IEC 60950*
- *Up to 4250Vrms gate to drive isolation*
- *IEC 61558, IEC 61010 & IEC 60601 reinforced insulation compliant designs*

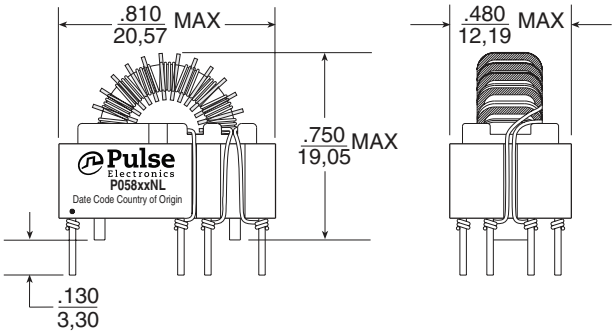
Electrical Specifications @ 25°C - Operating Temperature -40°C to +125°C								
Part[3,4] Number	**Turns Ratio**	**ET** (V * µsec MAX)	**Primary Inductance** (1-10) (µH MIN)	**Leakage Inductance Gate to Drive** (µH MAX)	**DCR Drive** (1-10) (mΩ ±20%)	**DCR Gates** (mΩ ±20%)	**Hi-Pot**	
							Drive-Gate (Vrms)	**Gate-Gate** (Vrms)
P0584NL	1:1:1	92	450	0.5	80	72	3000	1500
P0585NL	1:1:1:1:1	92	450	1.3	330	180	3000	1500*
P0584ANL	1:1:1	114	686	0.8	710	710	4250	1500
P0585ANL	1:1:1:1:1	114	686	2.2	710	710	4250	1500*

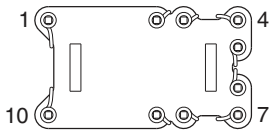
Notes:

1. The max ET is calculated to limit the core loss and temperature rise at 100KHz based on a bipolar flux swing of 180mT Peak. The applied ET may need to be derated for higher frequencies based on the temperature rise which results from the core and copper losses.
2. The temperature rise of the component is calculated based on the total core loss and copper loss:
   A. To calculate total copper loss (W), use the following formula:
   Copper Loss (W) = $Irms^2$ * (DCR_Drive + (# of Gates) * DCR_Gates)
   B. To calculate total core loss (W), use the following formula:
   Core Loss (W) = 6.5E-10*(Frequency in kHz)$^{1.67}$*(180 * [ET/ET Max])$^{2.53}$
   Where ET is the applied Volt Second, ET Max is the rated Volt Second for 180mT flux swing
   C. To calculate temperature rise, use the following formula:
   Temperature Rise (C) = 63 * (Core Loss(W) + Copper Loss (W))
3. 500Vrms Hi-Pot between pins 5 & 6.
4. NL versions, which use triple insulated Teflon wire on the drive winding and magnetic wire on the gate windings , are TUV certified. 600Vrms isolation rating is provided between drive and gate windings.
   ANL versions, which use triple insulated wire on both the drive and gate windings, are compliant with IEC 61558, IEC 61010 & IEC 60601. 1000Vrms isolation rating is provided between all winding except those terminate to pins 5 & 6.

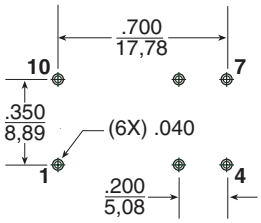
Mechanicals

P058xxNL

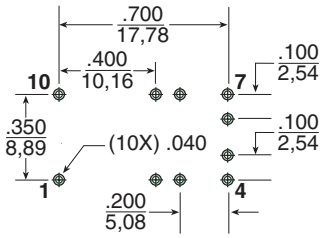




P0584NL/P0584ANL (6 pins)



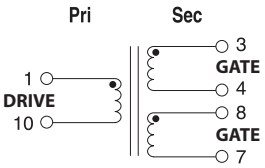
P0585NL/P0585ANL (10 pins)



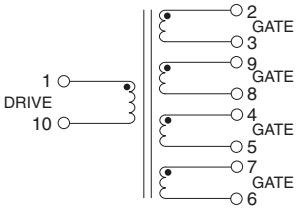
SUGGESTED PCB HOLE PATTERN

Schematics

P0584NL/P0584ANL



P0585NL/P0585ANL



Weight .....5 grams
Tray 80/tray

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 Rd
Zhongli City
Taoyuan City 32057
Taiwan (R.O.C)

Tel: 886 3 4356768
Fax: 886 3 4356820