

# Mosfet Gate Drive Transformers

PA3815NL Series



- International safety construction, VDE approval with IEC62368-1
- 3750V<sub>RMS</sub> gate to drive winding test
- Useful operating frequency from 20kHz to 100kHz

## Electrical Specifications @ 25°C - Operating Temperature -40°C to +125°C

Part Number	Turns Ratio (±5%)	Inductance $I_{V_{RMS}}$ 1 kHz Term 1-2 (μH MIN)	Leakage <sup>1</sup> Inductance Term 1-2 (μH MAX)	DCR Drive Winding (Ω MAX)	DCR Gate Winding (Ω MAX)	C <sub>ww</sub> Drive Winding (pf MAX)	C <sub>ww</sub> Gate To Gate (pf MAX)	Typical Operating Frequency (kHz)
PE-63385NL	1:1	1500	4.0	0.40	0.75	50	NA	20-100
PE-63387NL *	1:1:1	1500	4.0	0.40	0.75	50	130	20-100
PE-63386NL	1:1.5	1500	4.0	0.40	2.50	50	NA	20-100
PE-63388NL	1:1.5:1.5	1500	4.0	0.40	2.50	50	130	20-100

Notes: \*Tested to 4400Vrms for 1 minute as PE-68448NL.

## Maximum Ratings

Rating	Sym	PE-63385 PE-63386	PE-63387 PE-63388	Unit
Drive Excitation, Unipolar	ET <sub>U</sub> <sup>6</sup>	200	320	V-μs
Drive Excitation, Bipolar	ET <sub>B</sub> <sup>6</sup>	400	640	V-μs
Secondary RMS Current	I <sub>SR</sub> <sup>7</sup>	640	500	ma
Operating & Storage Temp.	T <sub>OP</sub> , T <sub>STG</sub>	105	105	°C

## Dielectric Strength

Test Between	RMS Test Volts 60Hz, 1 Minute Hold
Gate-Drive	3750
Gate-Gate	1500
Gate-Core	2000
Drive-Core	1750

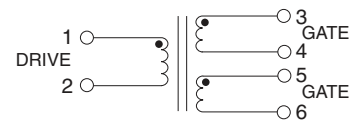
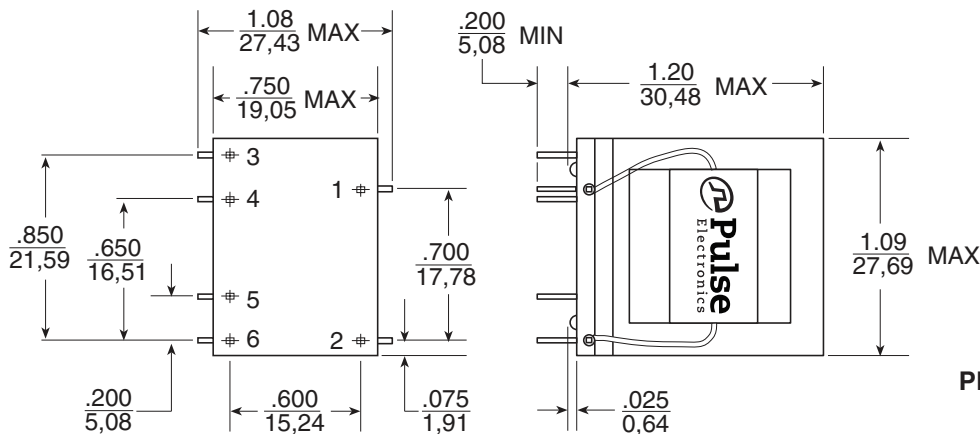
# Mosfet Gate Drive Transformers

PA3815NL Series

## Mechanical

## Schematic

PE-XXXXNL



**Dimensions:** Inches  
mm

Unless otherwise specified,  
all tolerances are  $\pm .010$   
0,25

### Notes:

1. Measured with secondaries shorted
2. Pins .025/0.64 square solderable
3. Unused pins not provided
4. Pin numbers not marked on part
5. Mounting header flammability rating: UL-94V0
6. At 2480 Gauss
7. At 200 CM/AMP

## 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.