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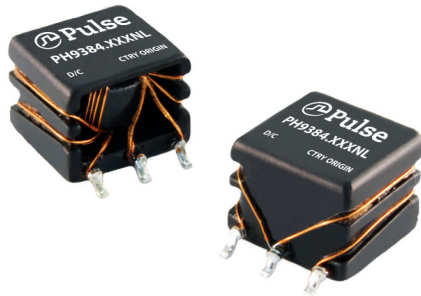
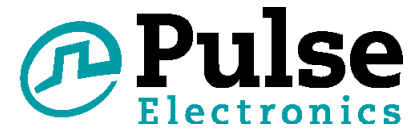
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# High Isolation Power Transformers

Toroid Platform SMD



- Push Pull Converter Transformer
- Patent Pending Sidecar Package
- 4KVrms Isolation
- Compact and cost effective industrial design

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

Part Number	Inductance (1-3) ( $\mu\text{H} \pm 35\%$ )	Leakage Inductance (1-3) with (4-6) shorted ( $\mu\text{H} \text{ MAX}$ )	Capacitance (1, 2, 3) to (4, 5, 6) (pF MAX)	DCR (1-3) ( $\Omega \text{ MAX}$ )	DCR (4-6) ( $\Omega \text{ MAX}$ )	MAX (1-3) <sup>1</sup> (V- $\mu\text{sec} \text{ Max}$ )	Turns Ratio (1:3) (6:4)	Isolated Voltage (Vrms)
PH9384.011NL	538	0.8	20	0.30	0.40	24	1CT : 1CT	4000
PH9384.012NL	538	0.6	30	0.33	0.65	24	1CT : 2CT	
PH9384.021NL	538	1.6	15	0.30	0.25	24	2CT : 1CT	
PH9384.034NL	680	0.6	30	0.35	0.52	27	3CT : 4CT	
PH9384.035NL	680	0.7	30	0.35	0.65	27	3CT : 5CT	
PH9384.043NL	538	0.8	20	0.30	0.30	24	4CT : 3CT	
PH9384.083NL	538	2.0	15	0.30	0.22	24	8CT : 3CT	
PH9384.089NL	538	0.6	30	0.30	0.42	24	8CT : 9CT	

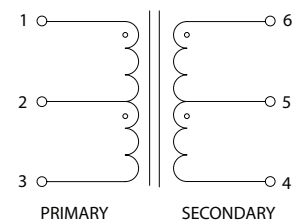
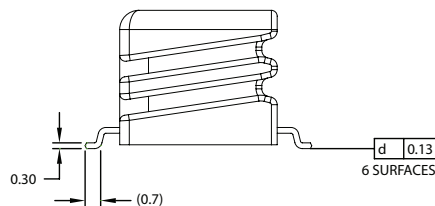
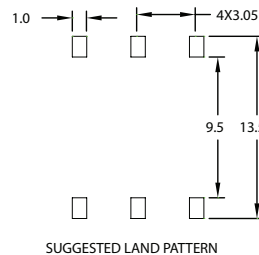
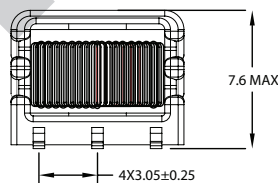
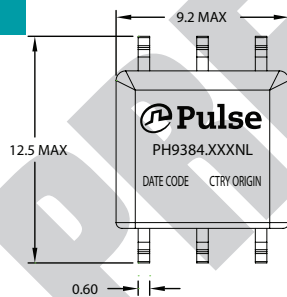
### Notes:

- The maximum volt-use rating limits the peak flux density to 3600 gauss when used in bi-polar drive application with 200KHz. For unipolar drive applications or a bi-polar drive with 350KHz, a maximum volt-use could be 60% of the listed value. For Push-Pull topology, where the voltage is applied across half the primary winding turns, the maximum volts-use needs to be derated by 50%.
- Optional Tape & Reel packing can be ordered by adding a "T" suffix to the part number (i.e. PH9384.012NL becomes PH9384.012NL.T). Pulse complies to industry standard tape and reel specification EIA481.
- The "NL" suffix indicates an RoHS-compliant part number.

## Mechanical

## Schematic

PH9384.XXXNL



**Weight** .....0.85grams  
**Tape & Reel** .....400/reel  
**Tray** .....55/tray

**Dimensions:** Inches  
mm

Unless otherwise specified,  
all tolerances are  $\pm \frac{.010}{0.25}$

USA 858 674 8100

Germany 49 2354 777 100

Singapore 65 6287 8998

Shanghai 86 21 62787060

China 86 755 33966678

Taiwan 886 3 4356768

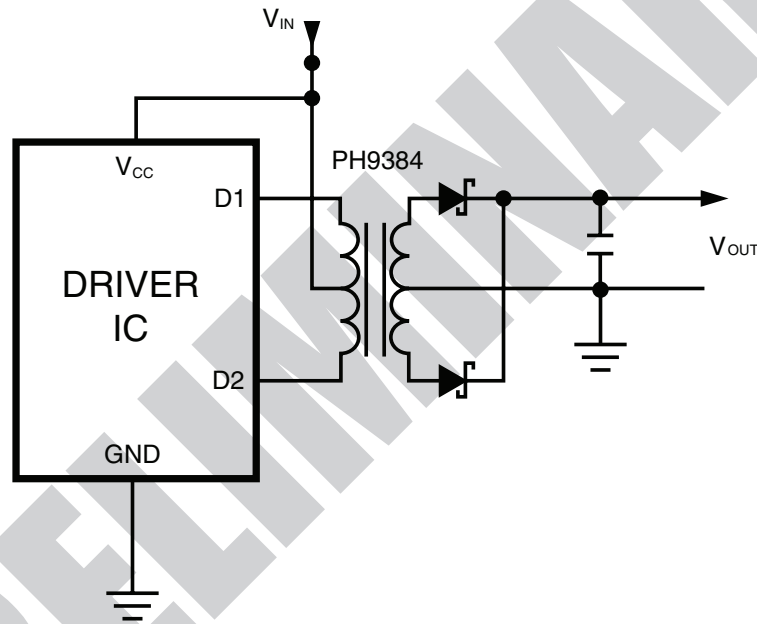
# High Isolation Power Transformers

Toroid Platform SMD

## Application

PH9384NL is a series of high isolation power supply transformer drivers. Intended to operate in a fixed duty cycle Push Pull topology, it is a part of a low cost solution for delivering lower power (up to 3W) from a low voltage source. A typical implementation would be an isolated RS-485/RS-232 power supply driver circuit, the design is compatible with the MAXIM™ MAX253 IC.

A schematic diagram for the Push Pull converter topology is given below.



For a fixed 50% duty cycle mode of operation, the output voltage is simply determined by the input voltage and turns ratio. So, with the available turns ratios, a variety of output voltages can be selected.

MAXIM is a registered trademark of Maxim Integrated Products.

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