# High Frequency Wire Wound Transformers

EFD15+ Flyback Transformer Platform - PAT6261.XXXNL Series









@ Height: 10.5mm Max

Footprint: 16.5mm x 22.23mmTopology: Flyback transformer

Functional Insulation

Isolation voltage: 1500Vrms (hi-pot)

Operating Frequency: 250kHz

Pulse PN	E	lectrical Specifications @25°C — Operating Temperature -4	0°C to 125°C1	Schematic
PAT6261.001NL	Pri. Inductance	(1, 2 - 3, 4)	24 μH ± 10%	1,20
	Lk. Inductance	(1, 2 - 3, 4) with (12, 11, 10 - 7, 8, 9) shorted	1.5 µH max	33–57V <sub>18</sub>
	DCR	(1, 2 - 3, 4)	$80\mathrm{m}\Omega$ max	3,40
		(5 -6)	420 m $\Omega$ max	5 0 12,11,10
		(12, 11, 10 - 7, 8, 9)	$5.3  \text{m}\Omega$ max	10.7V@50mA }
	Hi-Pot	Pri - Sec	1500 Vrms	6 0 8 3    6 0 7,8,9
	K1 Factor	614		
PAT6261.002NL	Pri. Inductance	(1, 2 - 3, 4)	24 μH ± 10%	
	Lk. Inductance	(1, 2 - 3, 4) with (12, 11, 10 - 7, 8, 9) shorted	1.3 µH max	1,2 O 33–57V
	DCR	(1, 2 - 3, 4)	$80\mathrm{m}\Omega$ max	18 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
		(5 -6)	370 m $\Omega$ max	3,40
		(12, 11, 10 - 7, 8, 9)	6.3 mΩ max	<u> </u>
	Hi-Pot	Pri - Sec	1500 Vrms	11.5V@50mA 7 6 0 7.8.9
	K1 Factor	614		6 0 7,8,9
PAT6261.003NL	Pri. Inductance	(1, 2 - 3, 4)	24 μH ± 10%	1,20
	Lk. Inductance	(1, 2 - 3, 4) with (12, 11, 10 - 7, 8, 9) shorted	1 μH max	33-57V 10
		(1, 2 - 3, 4)	$80\text{m}\Omega$ max	18 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
	DCR	(5 -6)	370 m $\Omega$ max	3,40 0 12,11,10
		(12, 11, 10 - 7, 8, 9)	$30\text{m}\Omega$ max	10.6V@50mA 7 12.0V@ 3.3A
	Hi-Pot	Pri - Sec	1500 Vrms	7 \    \> '
	K1 Factor	614		6 0 7,8,9
PAT6261.004NL	Pri. Inductance	(1, 2 - 3, 4)	3 μH ± 10%	1,20
	Lk. Inductance	(1, 2 - 3, 4) with (12, 11, 10 - 7, 8, 9) shorted	0.2 µH max	9–57V
		(1, 2 - 3, 4)	15 m $\Omega$ max	6
	DCR	(5 -6)	420 m $\Omega$ max	3,40 5* 0 12,11,10
		(12, 11, 10 - 7, 8, 9)	$5\text{m}\Omega$ max	40 5V0 50 4 3   \$   \$   7.7V@ 04
	Hi-Pot	Pri - Sec	1500 Vrms	12.5V@5UMA 8 2 3.5V@9A 6 0 7,8,9
	K1 Factor	230		

PulseElectronics.com P931.C (07/23)

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Pulse PN	El	ectrical Specifications @25°C — Operating Temperature	Schematic	
	Pri. Inductance	(1, 2 - 3, 4)	3 μH ± 10%	1,20
	Lk. Inductance	(1, 2 - 3, 4) with (12, 11, 10 - 7, 8, 9) shorted	0.2 μH max	9–570
		(1, 2 - 3, 4)	12.5 m $\Omega$ max	6
PAT6261.005NL	DCR	(5 -6)	450 m $\Omega$ max	3,40 5 0 12,11,10
		(12, 11, 10 - 7, 8, 9)	5.5 m $\Omega$ max	- 12.5V@50mA 8 5.0V@6.5A
	Hi-Pot	Pri - Sec	1500 Vrms	
	K1 Factor	230		6 0 7,8,9
PAT6261.006NL	Pri. Inductance	(1, 2 - 3, 4)	3 μH ± 10%	1,20
	Lk. Inductance	(1, 2 - 3, 4) with (12, 11, 10 - 7, 8, 9) shorted	0.2 μH max	9-57 V
		(1, 2 - 3, 4)	15 m $\Omega$ max	6 \
	DCR	(5 -6)	375 m $\Omega$ max	3,40 5 0 12,11,10
		(12, 11, 10 - 7, 8, 9)	25 m $\Omega$ max	12.5 V @ 50 mA
	Hi-Pot	Pri - Sec	1500 Vrms	6 \    \ \ 6
	K1 Factor	230		6 0 7,8,9

### Notes:

- 1. Storage Temperature: -40°C to 125°C
- 2. The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.
- 3. Pri/Lk. Inductance value is measured at 100Khz/0.1Vrms.
- 4. Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. (PAT6261.XXXNL becomes PAT6261.XXXNLT). Pulse complies with industry standard tape and reel specification EIA481.
- For flyback topology applications, it is necessary to ensure that the transformer will not saturate in the application. The peak flux density (Bpk) should remain below 2700Gauss. To calculate the peak flux density use the following formula:

Bpk (Gauss) = K1\_Factor \* lpk(A)

In high volt-µsec applications, it is important to calculate the core loss of the transformer.Approximate transformer core loss can be calculated as:

CoreLoss (W) =  $4.6E-14 * (Freq_kHz)^{1.63} * (\Delta B_Gauss)^{2.63}$ 

where  $\triangle B$  can be calculated as:

For Flyback Topology:  $\triangle B = K1_Factor * \triangle(A)$ 

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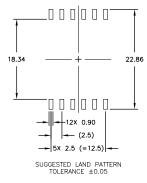
# PAT6261.XXXNL

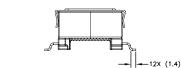
10.5 MAX

## **Mechanical**

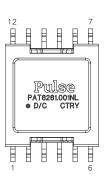
□ 0.15

# 16.5 MAX PULSE PART NO. D/C CTRY 12x 0.70 (2.5) 5x 2.5 (=12.5)





# **Final Outline**



# **For More Information:**

Americas - prodinfo\_power\_americas@yageo.com | Europe - prodinfo\_power\_emea@yageo.com | Asia - prodinfo\_power\_asia@yageo.com

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