

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## HIGH FREQUENCY WIRE WOUND TRANSFORMERS









- AC/DC and DC/DC Switching Transformers
- Reinforced Insulation
- 3000Vrms Hi-pot
- Power Range: Up to 60W
- Height: 18.0mm Max
- Footprint: 18.2mm x 16.0mm Max
- Topology: Flyback

	Elect	trical Specifications @ 25°C — Ope	erating Temperatur	e -40°C to 130°C
PA1931NL	Pri. Inductance	(7-5)	3200.0μH ±10%	70-04
	Lk. Inductance	(7-5) with (1-4) shorted	56μΗ MAX	100V-400V 22 }
		(7-5)	6400mΩ MAX	50001
	DCR	(4-1)	20mΩ MAX	100
		(10-9)	360mΩ MAX	16V / .05mA 5
	Hi-Pot	Pri-Sec	3000 Vrms	903
	K1 Factor	14692.4		FLYBACK TRANSFORMER
PA2115NL	Pri. Inductance	(2-1)	1000μH ±15%	20-010
	Lk. Inductance	(2-1) with (3,4,5,6,9,10) shorted	40μH MAX	85-265Vac 18 \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\
	DCR	(2-1)	3220mΩ MAX	3116
		(3-4)	210mΩ MAX	10 9 5
		(5-6)	70mΩ MAX	15V/.06A 4 1 1.0 3.3V/0.2A
		(10-9)	80mΩ MAX	3112
	Hi-Pot	Pri-Sec	3000 Vrms	40
	K1 Factor	5611.7		FLYBACK TRANSFORMER
	Pri. Inductance	(7-5)	1200.0μH ±10%	70-04
	Lk. Inductance	(7-5) with (1,4,9,10) shorted	30μH MAX	100-400Vdc 8.5     1.0 12V / 0.7A
	DCR	(7-5)	4950mΩ MAX	5 O
PA2517NL		(4-1)	57.5mΩ MAX	100
		(10-9)	915mΩ MAX	15V / 0.01A 1.23
	Hi-Pot	Pri-Sec	3000 Vrms	] 90-3
	K1 Factor	5509.6		FLYBACK TRANSFORMER
	Pri. Inductance	(1-4)	4.5μH ±12%	
	Lk. Inductance	(1-4) with (9-6) shorted	0.21µH MAX	40-09
PA2531NL	DCR	(1-4)	142mΩ MAX	12V 300kHz 0.5 } \ \\ \\ 1.0 12V / 2A
PAZSTINL		(9-6)	73mΩ MAX	10-3
		Pri-Sec	4000 Vrms	FLYBACK TRANSFORMER
	- 1/4	71.0	T	
PA2621NL	Pri. Inductance	(5-7)	1000μH ±10%	
	Lk. Inductance	(5-7) with (4,3,2,1) shorted	17µH MAX	5
	DCR	(5-7)	2430mΩ MAX	40-130kHz 4.0 7 3
		(4-3)	260mΩ MAX	90-02
		(2-1)	82mΩ MAX	12V/0.01A 2.5 }
	Lli Dot	(9-10) Pri-Sec	89mΩ MAX 4000 Vrms	10 0 1
	Hi-Pot		4000 11118	FLYBACK TRANSFORMER
	K1 Factor	6313.1		

# HIGH FREQUENCY WIRE WOUND TRANSFORMERS





(continued)

Electrical Specifications @ 25°C — Operating Temperature -40°C to 130°C								
	Pri. Inductance	(1-4)	3100 μH ±10%	10-07				
PA2655NL	Lk. Inductance	(1-4) (8,7,6,5)	62μH MAX	4.0 3     \( \)				
	DCR	(1-4)	4200mΩ MAX	85-265VAC 60kHz 2 (TWO				
		(5-6)	64mΩ MAX	5 SECONDA				
		(7-8)	105mΩ MAX	4 SVDC, 0.6A WINDING)				
	Hi-Pot	Pri-Sec	3000 Vrms					
	K1 Factor	9687.0		DM FLYBACK TRANSFORMER				

#### NOTES:

- 1. The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.
- 2. The above transformers and inductors have been tested and approved by Pulse's power IC partners and are sited in the appropriate datasheet or evaluation board documentation at these companies. To determine which IC and IC partners are matched with the above Pulse part numbers please consult the IC Cross Reference on the Pulse website.
- 3. 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)

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

CoreLoss (W) =  $3.6E-14 * (Freq_kHz)^{1.63} * (\Delta B_Gauss)^{2.63}$ 

where  $\Delta B$  can be calculated as:

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

For Forward Topology: ΔB = K1\_Factor \* Volt-µsec

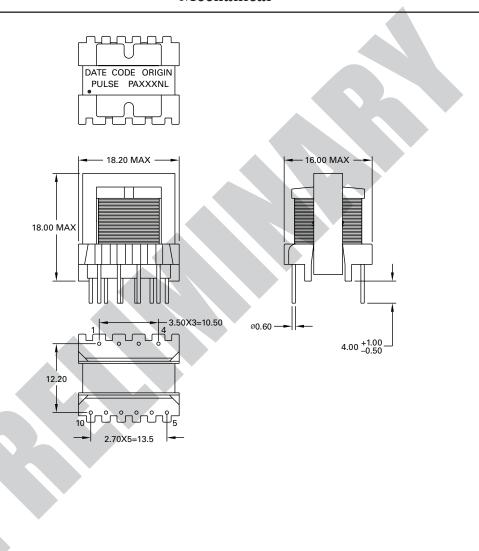
The "NL" suffix indicates an RoHS-compliant part number. Non-NL suffixed parts are not necessarily RoHS compliant, but are electrically and mechanically equivalent to NL versions. If a part number does not have the "NL" suffix, but an RoHS compliant version is required, please contact Pulse for availability.



### HIGH FREQUENCY WIRE WOUND TRANSFORMERS **EE16 Platforms - THT Vertical**



#### Mechanical



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