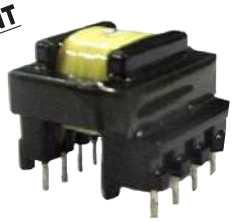
HIGH FREQUENCY WIRE WOUND TRANSFORMERS

EI22 Platforms - THT

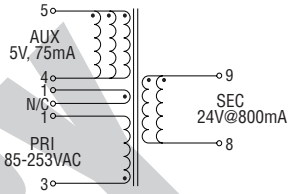
Pulse Electronics



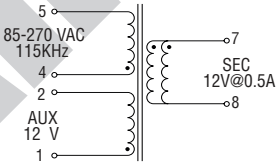
- **AC/DC and DC/DC Switching Transformers**
- **Reinforced Insulation**
- **3000Vrms Hi-Pot**
- **Topology:** Flyback
- **Custom Design Available**

Electrical Specifications @ 25°C — Operating Temperature -40°C to 130°C [1]

PA2653NL	Pri. Inductance	(3 - 1)	910 µH ± 10%		
	Lk. Inductance w/	(3 - 1) (4, 5, 8, 9)	15 µH MAX shorted		
	DCR	(3-1)	875	m Ω Max	
		(5-4)	17.5		
		(9-8)	75		
	Hi-Pot	Pri-Sec	3000 Vrms		
	K1 Factor	3616.8			
PA2813NL	Pri. Inductance	(4 - 5)	1200 µH ± 10%		
	Lk. Inductance w/	(4 - 5) (1, 2, 7, 8)	20 µH MAX shorted		
	DCR	(4-5)	2500	m Ω Max	
		(1-2)	200		
		(7-8)	60		
	Hi-Pot	Pri-Sec	3000 Vrms		
	K1 Factor	5148			



CM - FLYBACK TRANSFORMER



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 andIC 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 * Ipk(A)

4. 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) = $4.1769 \times 10^{-7} \times (\text{Freq\_kHz})^{1.62} \times (\text{DB\_Gauss})^{2.65}$
   where DB can be calculated as:
   For Flyback Topology: DB = K1_Factor * D(A)
   For Forward Topology: DB = K1_Factor * Volt-µsec
5. 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.

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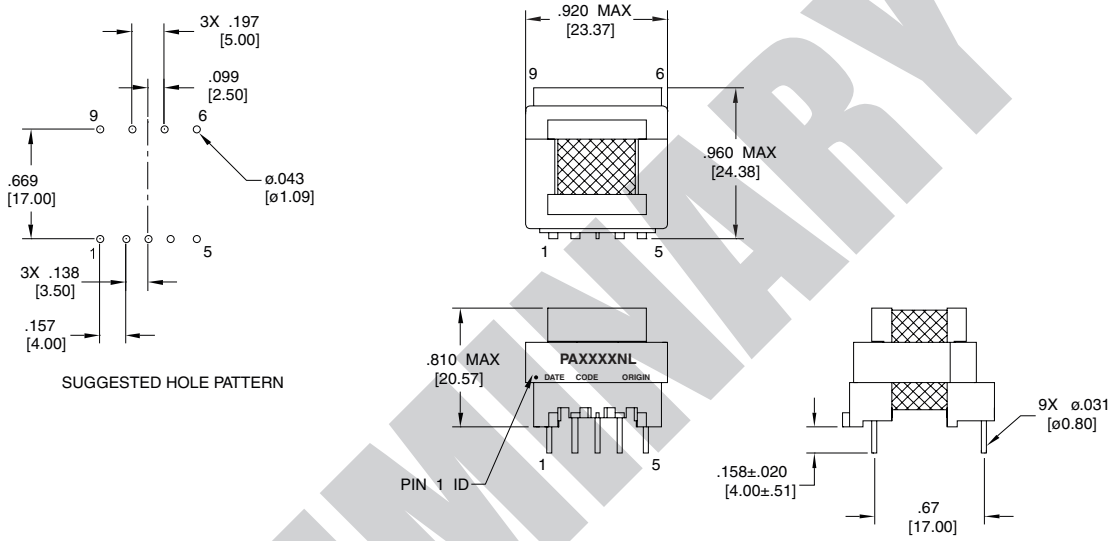
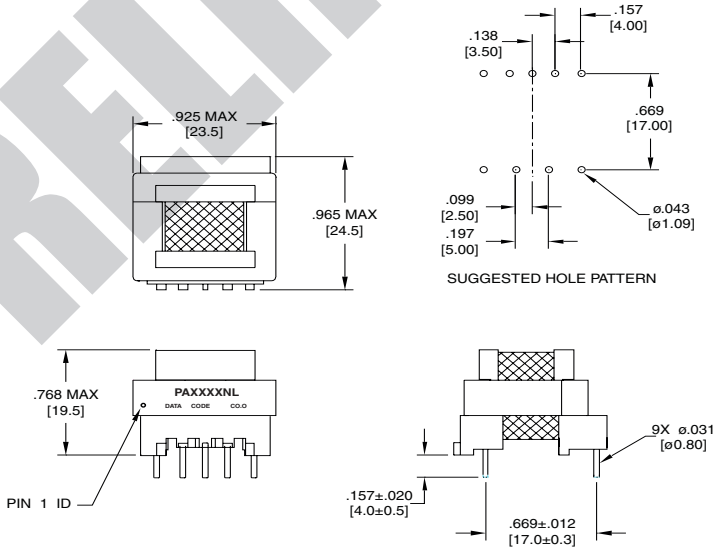
Mechanical

PA2653NL



Mechanical

PA2813NL



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