

HIGH FREQUENCY WIRE WOUND TRANSFORMERS

EF25 Platforms - THT Horizontal



- AC/DC and DC/DC Switching Transformers
- Reinforced Insulation
- 3000 Vrms Hi-pot
- Height: 20.8mm Max
- Footprint: 29.2mm x 27.9mm Max
- Topology: Flyback

Electrical Specifications @ 25°C — Operating Temperature -40°C to 130°C⁵

PA1297NL	Pri. Inductance	(3-1)	380µH ±10%	<p>90-380Vdc 200kHz 3.2</p> <p>13V / .02A 0.46</p> <p>FLYBACK TRANSFORMER</p>
	Lk. Inductance	(3-1) with (7-9) shorted	11µH MAX	
	DCR	(3-1)	945mΩ MAX	
		(9-7)	40mΩ MAX	
		(4-5)	85mΩ MAX	
	Hi-Pot	Pri-Sec	3000Vrms	
K1 Factor	1528.3			
PA2547NL	Pri. Inductance	(3-1)	1850µH ±15%	<p>190-370Vdc 140kHz 3.3</p> <p>47V / .02A 1.0</p> <p>FLYBACK TRANSFORMER</p>
	Lk. Inductance	(3-1) with (7-9) shorted	21µH MAX	
	DCR	(3-1)	930mΩ MAX	
		(9-7)	223mΩ MAX	
		(4-5)	408mΩ MAX	
	Hi-Pot	Pri-Sec	3000Vrms	
K1 Factor	4152.8			
PA2611NL	Pri. Inductance	1-3	9850µH ±15%	<p>375-390Vdc 100kHz 4.24</p> <p>13V / 0.02A 0.29</p> <p>HALF-BRIDGE TRANSFORMER</p>
	Lk. Inductance	(1-3) with (6,7,8,9,10) shorted	40µH MAX	
	DCR	(1-3)	790mΩ MAX	
		(10-8)	220mΩ MAX	
		(7-6)	15mΩ MAX	
		(4-5)	80mΩ MAX	
Hi-Pot	Pri-Sec	3000Vrms		
K1 Factor	2.7			
PA2676NL	Pri. Inductance	(3-1)	860µH ±15%	<p>400V 80kHz 1.0</p> <p>25V / 0.02A 0.167</p> <p>FLYBACK TRANSFORMER</p>
	Lk. Inductance	(3-1) with (7-9) shorted	78µH MAX	
	DCR	(3-1)	910mΩ MAX	
		(9-7)	3050mΩ MAX	
		(4-5)	350mΩ MAX	
	Hi-Pot	Pri-Sec	4000Vrms	
K1 Factor	1537.3			
PA2804NL	Pri. Inductance	(1-3)	275µH ±10%	<p>85-305Vdc 80-200kHz 1.96</p> <p>16V / 0.02A 0.57</p> <p>FLYBACK TRANSFORMER</p>
	Lk. Inductance	(1-3) with (4,5,6,7,8,9,10) shorted	8.4µH MAX	
	DCR	(1-3)	250mΩ MAX	
		(9-10)	160mΩ MAX	
		(5-4)	400mΩ MAX	
		(6-7)	311mΩ MAX	
Hi-Pot	Pri-Sec	3000Vrms		
K1 Factor	1179.8			

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EF25 Platforms - THT Vertical



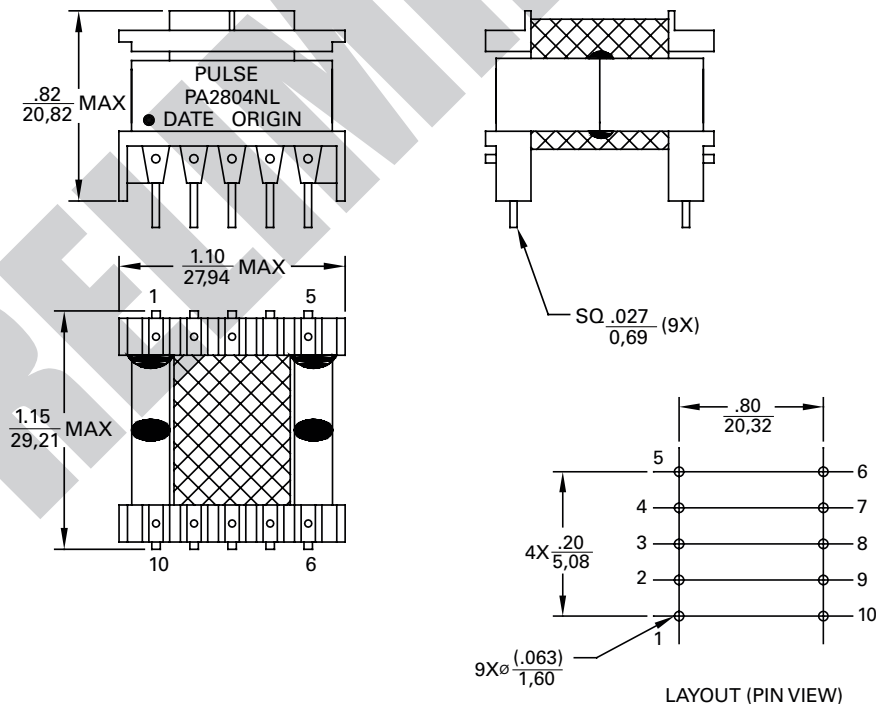
Notes

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:

$$B_{pk} \text{ (Gauss)} = K1_Factor * I_{pk}(A)$$
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:

$$\text{CoreLoss (W)} = 3.9E-13 * (\text{Freq_kHz})^{1.63} * (\Delta B_Gauss)^{2.63}$$
 where ΔB can be calculated as:
 For Flyback Topology: $\Delta B = K1_Factor * \Delta(A)$
 For Forward Topology: $\Delta B = K1_Factor * \text{Volt-}\mu\text{sec}$
5. The "NL" suffix indicates an RoHS-compliant part number. Non-NL suffix 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.

Mechanical



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