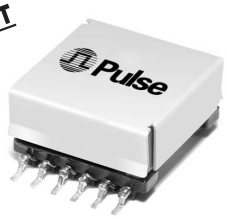
HIGH FREQUENCY WIRE WOUND TRANSFORMERS

EFD25 Platforms - SMT

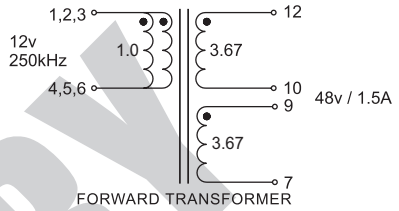
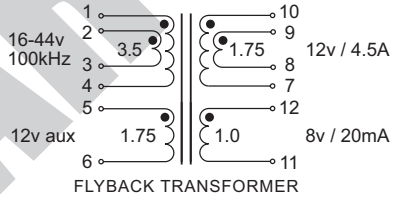
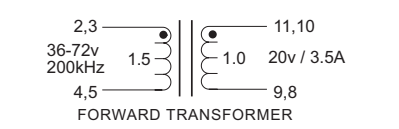
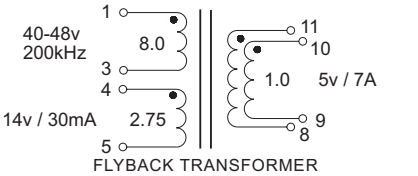
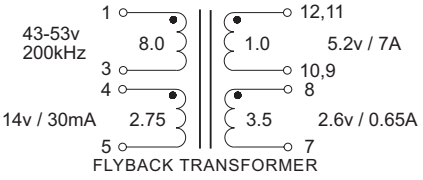
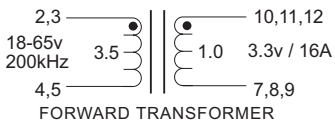
Pulse
A TECHNITROL COMPANY

RoHS COMPLIANT



- **Power Range:** Up to 105W
- **Height:** 13.7mm Max
- **Footprint:** 32.0mm x 26.4mm Max
- **Topology:** Forward and Flyback

Electrical Specifications @ 25°C — Operating Temperature -40°C to 130°C [5]

PA0700NL	Pri. Inductance	(1,2,3-4,5,6)	21.4µH ±40%	
	Lk. Inductance	(1,2,3-4,5,6) with (7,9,10,12) shorted	0.5µH MAX	
	DCR	(1,2,3-4,5,6)	4mΩ MAX	
		(12-10)	45mΩ MAX	
		(9-7)	40mΩ MAX	
	Hi-Pot	Pri-Sec	2250Vdc	
	K1 Factor	57.5		
PA1188	Pri. Inductance	(1,2-3,4)	26.5µH ±15%	
	Lk. Inductance	(1,2-3,4) with (7,8,9,10) shorted	0.36µH MAX	
	DCR	(1-4)=(2-3)	50mΩ MAX	
		(5-6)	30mΩ MAX	
		(10-7)=(9-8)	20mΩ MAX	
		(12-11)	16mΩ MAX	
	Hi-Pot	Pri-Sec	1500Vdc	
	K1 Factor	326.4		
PA1434NL	Pri. Inductance	(2,3-4,5)	30.9µH ±10%	
	Lk. Inductance	(2,3-4,5) with (11,10,9,8) shorted	0.5µH MAX	
	DCR	(2,3-4,5)	36mΩ MAX	
		(11,10,9,8)	19mΩ MAX	
	Hi-Pot	Pri-Sec	1800Vrms	
	K1 Factor	354.6		
PA1468NL	Pri. Inductance	(1-3)	199.7µH ±12%	
	Lk. Inductance	(1-3) with (11,10,9,8) shorted	3.4µH MAX	
	DCR	(1-3)	142mΩ MAX	
		(11-8)	73mΩ MAX	
		(11,10-9,8)	7.5mΩ MAX	
	Hi-Pot	Pri-Sec	1800Vrms	
	K1 Factor	1075.7		
PA1543NL	Pri. Inductance	(1-3)	300µH ±10%	
	Lk. Inductance	(1-3) with (11,10,9,8) shorted	5µH MAX	
	DCR	(1-3)	120mΩ MAX	
		(4-5)	70mΩ MAX	
		(12,11-10,9)	7.5mΩ MAX	
		(8-7)	265mΩ MAX	
	Hi-Pot	Pri-Sec	1800Vrms	
	K1 Factor	1616.4		
PA1785NL	Pri. Inductance	(2,3-4,5)	98µH ±30%	
	Lk. Inductance	(2,3-4,5) with (7,8,9,10,11,12) shorted	1µH MAX	
	DCR	(2-4)	15.5mΩ MAX	
		(3-5)	22mΩ MAX	
		(12,11,10-9,8,7)	2.5mΩ MAX	
	Hi-Pot	Pri-Sec	1500Vrms	
	K1 Factor	24.6		

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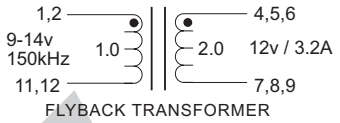
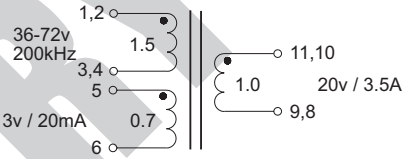
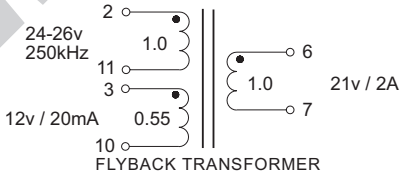
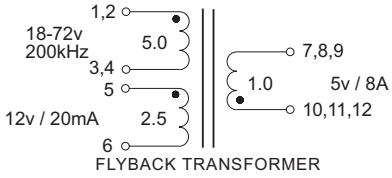
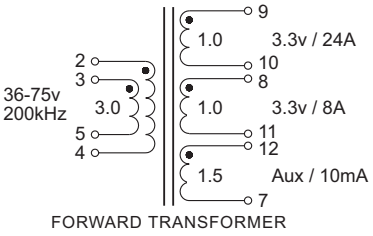
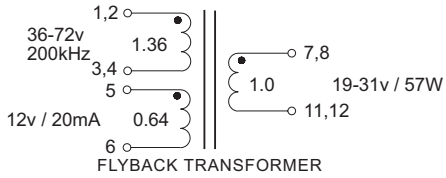
PA1799NL	Pri. Inductance	(1,2-11,12)	3.61µH ±12%	
	Lk. Inductance	(1,2-11,12) with (4,5,6,7,8,9) shorted	0.1µH MAX	
	DCR	(2-11)	5mΩ MAX	
		(1-12)	6mΩ MAX	
		(4,5,6-7,8,9)	9.3mΩ MAX	
	Hi-Pot	Pri-Sec	1500Vdc	
	K1 Factor	207.5		
PA1849NL	Pri. Inductance	(1,2-3,4)	30.8µH ±7%	
	Lk. Inductance	(1,2-3,4) with (8,9,10,11) shorted	0.75µH MAX	
	DCR	(1,2-3,4)	36mΩ MAX	
		(10,11-8,9)	20mΩ MAX	
		(5-6)	130mΩ MAX	
	Hi-Pot	Pri-Sec	1800Vrms	
	K1 Factor	354.0		
PA1927NL	Pri. Inductance	(2-11)	23.7µH ±10%	
	Lk. Inductance	(2-11) with (6,7) shorted	0.5µH MAX	
	DCR	(2-11)	14mΩ MAX	
		(6-7)	14mΩ MAX	
		(3-1)	110mΩ MAX	
	Hi-Pot	Pri-Sec	1500Vdc	
	K1 Factor	454.0		
PA2226NL	Pri. Inductance	(1,2-3,4)	25µH ±10%	
	Lk. Inductance	(1,2-3,4) with (5,6,7,8,9,10,11,12) shorted	0.5µH MAX	
	DCR	(1,2-3,4)	16mΩ MAX	
		(5-6)	60mΩ MAX	
		(10,11,12-7,8,9)	2.5mΩ MAX	
	Hi-Pot	Pri-Sec	2250Vdc	
	K1 Factor	431.0		
PA2247NL	Pri. Inductance	(2,3-4,5)	40.5µH ±30%	
	Lk. Inductance	(2,3-4,5) with (7,8,9,10,11,12) shorted	3.5µH MAX	
	DCR	(2-4)	22mΩ MAX	
		(3-5)	22mΩ MAX	
		(9-10)	4mΩ MAX	
		(8-11)	4mΩ MAX	
		(12-7)	170mΩ MAX	
	Hi-Pot	Pri-Sec	2000Vrms	
	K1 Factor	28.7		
PA2459NL	Pri. Inductance	(1,2-3,4)	57.8µH ±10%	
	Lk. Inductance	(1,2-3,4) with (5,6,7,8,11,12) shorted	0.46µH MAX	
	DCR	(1,2-3,4)	53mΩ MAX	
		(5-6)	94mΩ MAX	
		(7,8-11,12)	33mΩ MAX	
	Hi-Pot	Pri-Sec	1500Vrms	
	K1 Factor	524.5		

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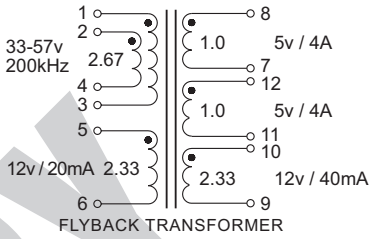
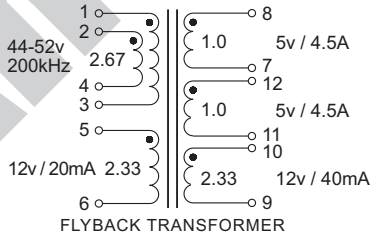
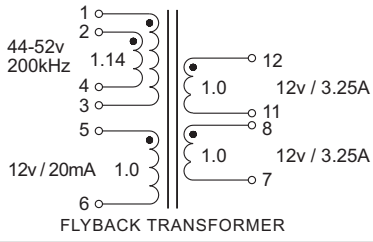
PA2464NL	Pri. Inductance	(1,2-3,4)	40.5µH ±10%	
	Lk. Inductance	(1,2-3,4) with (5,6,7,8,9,10,11,12) shorted	n/a µH MAX	
	DCR	(1,2-3,4)	48mΩ MAX	
		(5-6)	167mΩ MAX	
		(8-7)	17mΩ MAX	
		(12-11)	18mΩ MAX	
		(10-9)	102mΩ MAX	
	Hi-Pot	Pri-Sec	1500Vrms	
	K1 Factor	436.4		
PA2532NL	Pri. Inductance	(1,2-3,4)	12.2µH ±10%	
	Lk. Inductance	(1,2-3,4) with (5,6,7,8,9,10,11,12) shorted	0.196 µH MAX	
	DCR	(1,2-3,4)	18mΩ MAX	
		(5-6)	72mΩ MAX	
		(8-7)	9.3mΩ MAX	
		(12-11)	9.3mΩ MAX	
		(10-9)	35mΩ MAX	
	Hi-Pot	Pri-Sec	1500Vrms	
	K1 Factor	131.5		
PA2548NL	Pri. Inductance	(1,2-3,4)	11.2µH ±10%	
	Lk. Inductance	(1,2-3,4) with (5,6,7,8,9,10,11,12) shorted	n/a µH MAX	
	DCR	(1,2-3,4)	18mΩ MAX	
		(5-6)	73mΩ MAX	
		(8-7)	20mΩ MAX	
		(12-11)	21mΩ MAX	
	Hi-Pot	Pri-Sec	2250Vrms	
	K1 Factor	241.4		

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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 * 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:

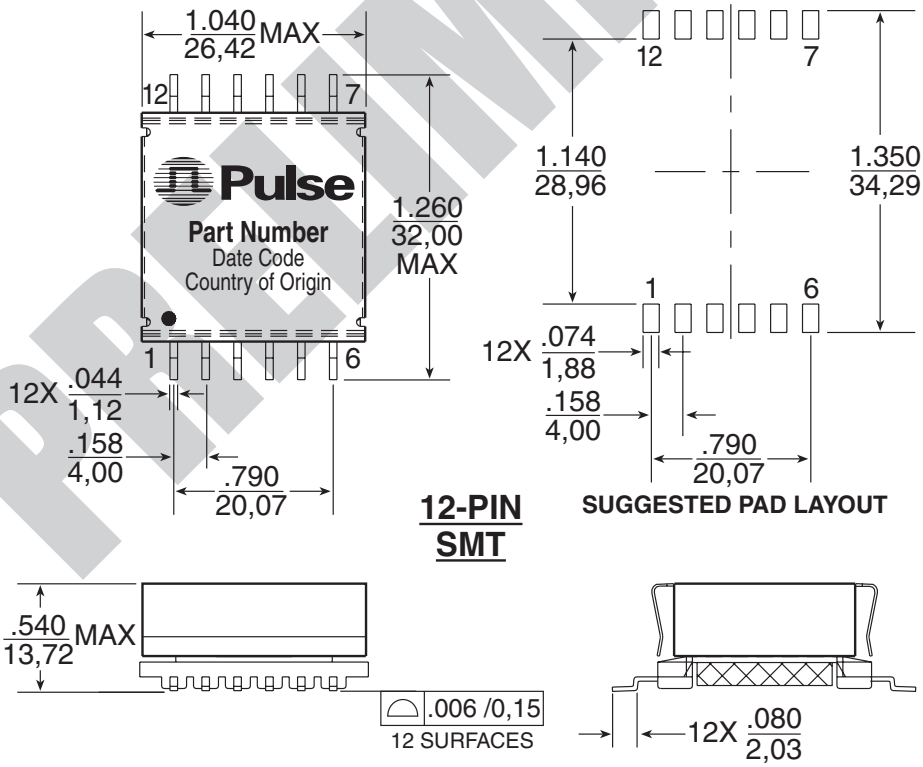
   CoreLoss (W) = 2.98E-13 * (Freq_kHz)$^{1.63}$ * (ΔB_Gauss)$^{2.63}$

   where ΔB can be calculated as:

   For Flyback Topology: ΔB = K1_Factor * Δ(A)

   For Forward Topology: ΔB = K1_Factor * Volt-µsec
5. Optional Tape & Reel packaging can be ordered by adding a "**T**" suffix to the part number (i.e. PA0700NL becomes PA0700NL**T**). Pulse complies with industry standard tape and reel specification EIA481.
6. 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.

Mechanical



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