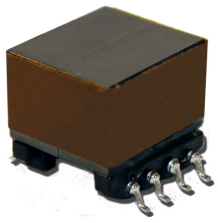
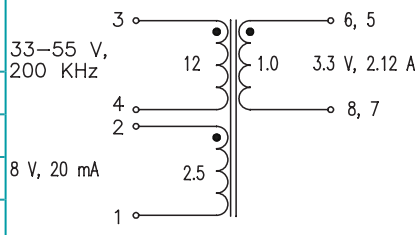
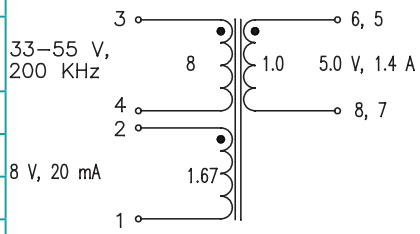
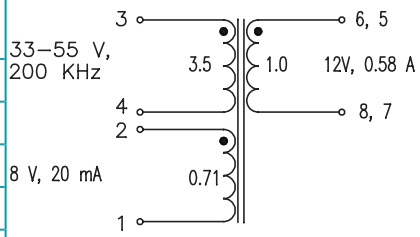
High Frequency Wire Wound Transformers

EP10 Platforms - SMT



- ***Power Range:*** *up to 30W*
- ***Height:*** *11.45mm Max*
- ***Footprint:*** *15.24mm x 13.1mm Max*
- ***Toplogy:*** *Forward and Flyback*

Electrical Specifications @ 25°C - Operating Temperature -40°C to +130°C[5]				
PA1133NL	Pri. Inductance	(3-4)	253.4µH ± 10%	 FLYBACK TRANSFORMER
	Lk. Inductance	(3-4) with (8, 7, 6, 5) shorted	7.5µH MAX	
	DCR	(3-4)	420mΩ MAX	
		(6, 5-8, 7)	7.5mΩ MAX	
		(2-1)	115mΩ MAX	
	Hi-Pot	Pri-Sec	1500Vrms	
	K1 Factor	4671.8		
PA1134NL	Pri. Inductance	(3-4)	253.4µH ±10%	 FLYBACK TRANSFORMER
	Lk. Inductance	(3-4) with (8, 7, 6, 5) shorted	7.5µH MAX	
	DCR	(3-4)	420mΩ MAX	
		(6, 5-8, 7)	16mΩ MAX	
		(2-1)	115mΩ MAX	
	Hi-Pot	Pri-Sec	1500Vrms	
	K1 Factor	4671.8		
PA1135NL	Pri. Inductance	(3-4)	264.1µH ±10%	 FLYBACK TRANSFORMER
	Lk. Inductance	(3-4) with (8, 7, 6, 5) shorted	6 µH MAX	
	DCR	(3-4)	800mΩ MAX	
		(6, 5-8, 7)	45mΩ MAX	
		(2-1)	115mΩ MAX	
	Hi-Pot	Pri-Sec	1500Vrms	
	K1 Factor	4769.7		

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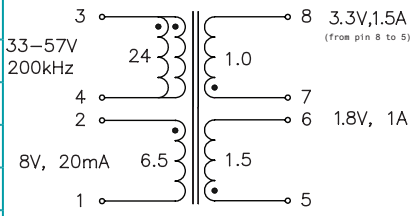
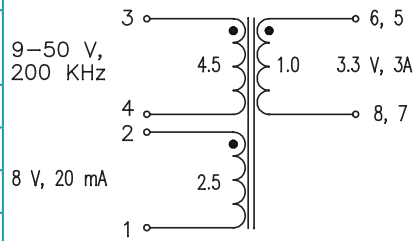
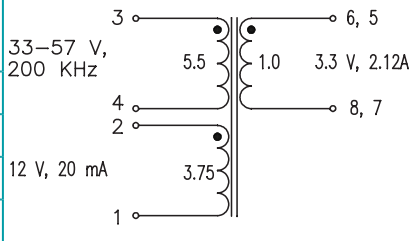
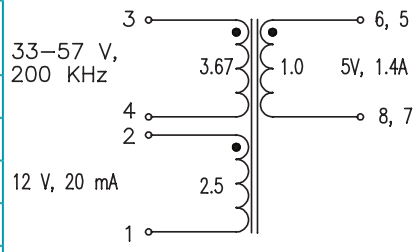
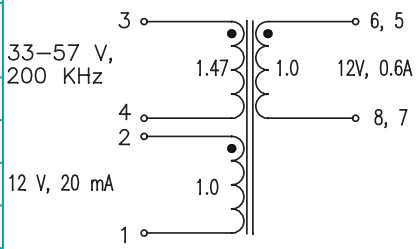
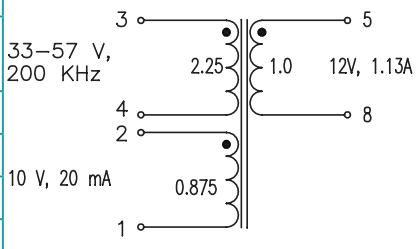
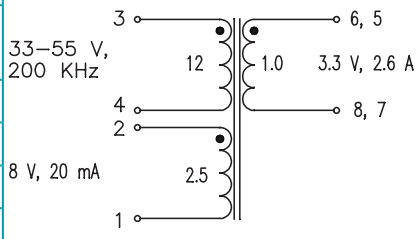
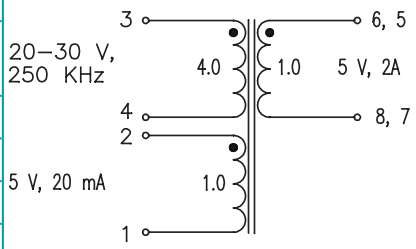
Electrical Specifications @ 25°C - Operating Temperature -40°C to +130°C[5]				
PA1253NL	Pri. Inductance	(3-4)	253.4 µH ±10%	 FLYBACK TRANSFORMER
	Lk. Inductance	(3-4) with (8, 7, 6, 5) shorted	12 µH MAX	
	DCR	(3-4)	420 mΩ MAX	
		(2-1)	335 mΩ MAX	
		(5-6)	9.5 mΩ MAX	
		(7-8)	7.2 mΩ MAX	
	Hi-Pot	Pri-Sec	1500Vrms	
	K1 Factor	4671.8		
PA1277NL	Pri. Inductance	(3-4)	20.4µH ±10%	 FLYBACK TRANSFORMER
	Lk. Inductance	(3-4) with (10, 9, 8, 7) shorted	1.5 µH MAX	
	DCR	(3-4)	80 mΩ MAX	
		(6, 5-8, 7)	7.5 mΩ MAX	
		(2-1)	150 mΩ MAX	
	Hi-Pot	Pri-Sec	1500Vrms	
	K1 Factor	1002.9		
PA1282NL	Pri. Inductance	(3-4)	155 µH ±10%	 FLYBACK TRANSFORMER
	Lk. Inductance	(3-4) with (8, 7, 6, 5) shorted	5 µH MAX	
	DCR	(3-4)	530 mΩ MAX	
		(6, 5-8, 7)	31 mΩ MAX	
		(2-1)	900 mΩ MAX	
	Hi-Pot	Pri-Sec	1500Vrms	
	K1 Factor	3117.5		
PA1283NL	Pri. Inductance	(3-4)	155 µH ±10%	 FLYBACK TRANSFORMER
	Lk. Inductance	(3-4) with (8, 7, 6, 5) shorted	5 µH MAX	
	DCR	(3-4)	570 mΩ MAX	
		(6, 5-8, 7)	40 mΩ MAX	
		(2-1)	1000 mΩ MAX	
	Hi-Pot	Pri-Sec	1500 Vrms	
	K1 Factor	3117.5		

High Frequency Wire Wound Transformers

EP10 Platforms - SMT

Electrical Specifications @ 25°C - Operating Temperature -40°C to +130°C[5]				
PA1284NL	Pri. Inductance	(3-4)	155 µH ±10%	 FLYBACK TRANSFORMER
	Lk. Inductance	(3-4) with (8, 7, 6, 5) shorted	5 µH MAX	
	DCR	(3-4)	540 mΩ MAX	
		(6, 5-8, 7)	370 mΩ MAX	
		(2-1)	920 mΩ MAX	
	Hi-Pot	Pri-Sec	1500 Vrms	
	K1 Factor	3117.5		
PA1370NL	Pri. Inductance	(3-4)	20.4 µH ±10%	 FLYBACK TRANSFORMER
	Lk. Inductance	(3-4) with (8,5) shorted	1.5 µH MAX	
	DCR	(3-4)	80 mΩ MAX	
		(5-8)	30 mΩ MAX	
		(2-1)	105 mΩ MAX	
	Hi-Pot	Pri-Sec	1500 Vrms	
	K1 Factor	1002.9		
PA1721NL	Pri. Inductance	(3-4)	185 µH ±10%	 FORWARD TRANSFORMER
	Lk. Inductance	(3-4) with (8, 7, 6, 5) shorted	10 µH MAX	
	DCR	(3-4)	420 mΩ MAX	
		(6, 5-8, 7)	12 mΩ MAX	
		(2-1)	115 mΩ MAX	
	Hi-Pot	Pri-Sec	1500 Vrms	
	K1 Factor	3410.8		
PA2362NL	Pri. Inductance	(3-4)	25.2µH ±10%	 FLYBACK TRANSFORMER
	Lk. Inductance	(3-4) with (1, 2, 8, 7, 6, 5) shorted	0.55 µH MAX	
	DCR	(3-4)	135 mΩ MAX	
		(6, 5-8, 7)	11 mΩ MAX	
		(2-1)	115 mΩ MAX	
	Hi-Pot	Pri-Sec	1500 Vdc	
	K1 Factor	1115.0		

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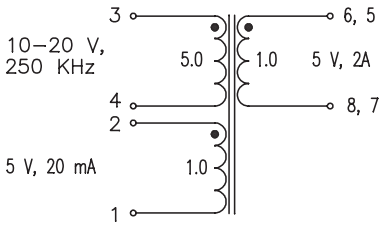
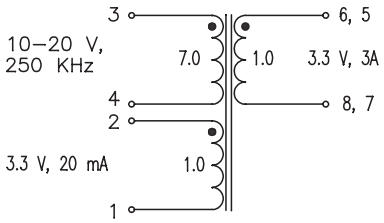
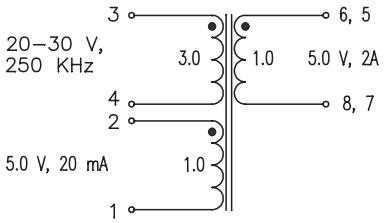
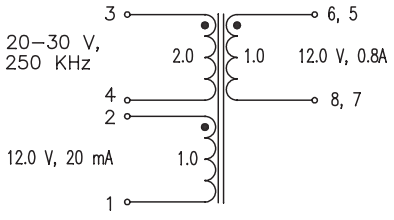
Electrical Specifications @ 25°C – Operating Temperature -40°C to +130°C[5]				
PA2363NL	Pri. Inductance	(3-4)	25.2 µH ±10%	 FLYBACK TRANSFORMER
	Lk. Inductance	(3-4) with (1, 2, 8, 7, 6, 5) shorted	0.85 µH MAX	
	DCR	(3-4)	135 mΩ MAX	
		(6, 5-8, 7)	9 mΩ MAX	
		(2-1)	180 mΩ MAX	
	Hi-Pot	Pri-Sec	1500 Vrms	
	K1 Factor	1115.0		
PA2364NL	Pri. Inductance	(3-4)	25.2µH ±10%	 FLYBACK TRANSFORMER
	Lk. Inductance	(3-4) with (1, 2, 8, 7, 6, 5) shorted	1 µH MAX	
	DCR	(3-4)	145 mΩ MAX	
		(6, 5-8, 7)	7.5 mΩ MAX	
		(2-1)	110 mΩ MAX	
	Hi-Pot	Pri-Sec	1500 Vrms	
	K1 Factor	1059.4		
PA2454NL	Pri. Inductance	(3-4)	24µH ±10%	 FLYBACK TRANSFORMER
	Lk. Inductance	(3-4) with (8, 7, 6, 5) shorted	0.75 µH MAX	
	DCR	(3-4)	82 mΩ MAX	
		(6, 5-8, 7)	13 mΩ MAX	
		(2-1)	80 mΩ MAX	
	Hi-Pot	Pri-Sec	1500 Vrms	
	K1 Factor	1179.9		
PA2455NL	Pri. Inductance	(3-4)	24 µH ±10%	 FLYBACK TRANSFORMER
	Lk. Inductance	(1-4) with (8, 7, 6, 5) shorted	0.6 µH MAX	
	DCR	(3-4)	90 mΩ MAX	
		(6, 5-8, 7)	23 mΩ MAX	
		(2-1)	130 mΩ MAX	
	Hi-Pot	Pri-Sec	1500 Vdc	
	K1 Factor	1179.9		

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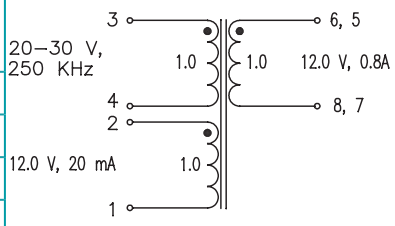
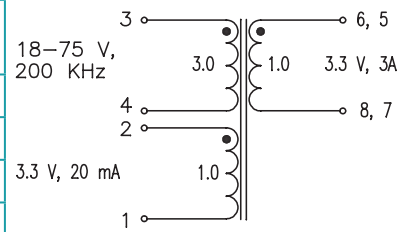
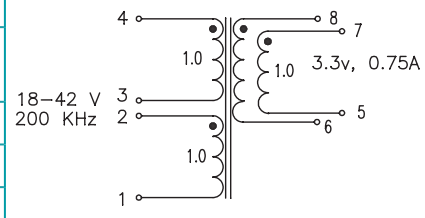
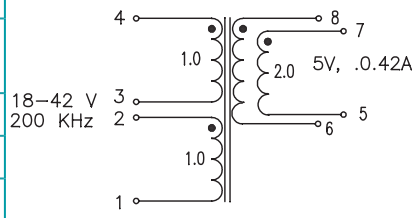
Electrical Specifications @ 25°C - Operating Temperature -40°C to +130°C[5]				
PA2456NL	Pri. Inductance	(3-4)	24 µH ±10%	
	Lk. Inductance	(3,4) with (8, 7, 6, 5) shorted	0.6 µH MAX	
	DCR	(3-4)	86 mΩ MAX	
		(6, ,5-8, 7)	86 mΩ MAX	
		(2-1)	470 mΩ MAX	
	Hi-Pot	Pri-Sec	1500 Vrms	
	K1 Factor	1179.9		FLYBACK TRANSFORMER
PA2627NL	Pri. Inductance	(3-4)	50.5 µH ±10%	
	Lk. Inductance	(3-4) with (8, 7, 6, 5) shorted	1.4 µH MAX	
	DCR	(3-4)	420 mΩ MAX	
		(6, 5-8, 7)	47 mΩ MAX	
		(2-1)	174 mΩ MAX	
	Hi-Pot	Pri-Sec	1500 Vrms	
	K1 Factor	1241.4		FLYBACK TRANSFORMER
PA3948.001NL	Pri. Inductance	(4-1) with 3,2 shorted	40 µH ±10%	
		(4-1) with 3,2 shorted	32 µH Min at 1.88A	
	Lk. Inductance	(4-1) with (5, 6, 7, 8) shorted	1.45 µH MAX	
	DCR	(3-4)	410 mΩ MAX	
		(6, 5-8, 7))	140 mΩ MAX	
		(2-1)	140 mΩ MAX	
	Hi-Pot	Pri-Sec	1500 Vdc	
	K1 Factor	1241.4		FLYBACK TRANSFORMER
PA3948.002NL	Pri. Inductance	(4-1) with 3,2 shorted	40 µH ±10%	
		(4-1) with 3.2 shorted	32 µH Min at 1.88A	
	Lk. Inductance	(4-1) with (5, 6, 7, 8) shorted	1.45 µH MAX	
	DCR	(4-1)	405 mΩ MAX	
		(8-6)	470 mΩ MAX	
		(7-5)	470 mΩ MAX	
	Hi-Pot	Pri-Sec	1500 Vdc	
	K1 Factor	983.3		FLYBACK TRANSFORMER

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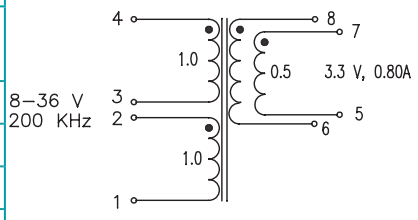
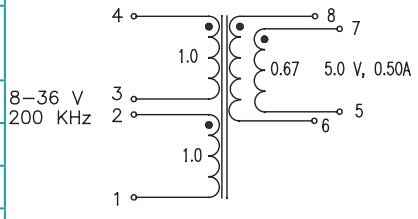
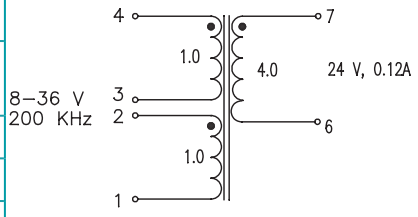
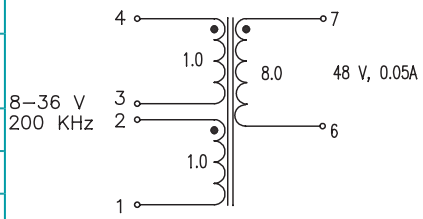
Electrical Specifications @ 25°C – Operating Temperature -40°C to +130°C[5]				
PA3948.003NL	Pri. Inductance	(4-1) with 3, 2 shorted	40 µH ±10%	 FLYBACK TRANSFORMER
		(4-1) with 3, 2 shorted	32 µH Min at 1.88A	
	Lk. Inductance	(4-1) with (5, 6, 7, 8) shorted	1.45 µH MAX	
	DCR	(4-1)	405 mΩ MAX	
		(8-6)	470 mΩ MAX	
		(7-5)	470 mΩ MAX	
	Hi-Pot	Pri-Sec	1500 Vrms	
	K1 Factor	983.3		
PA3948.004NL	Pri. Inductance	(4-1) with 3, 2 shorted	40 µH ± 10%	 FLYBACK TRANSFORMER
		(4-1) with 3, 2 shorted	32 µH Min at 1.88A	
	Lk. Inductance	(4-1) with (5, 6, 7, 8) shorted	1.45 µH MAX	
	DCR	(4-1)	220 mΩ MAX	
		(8-6)	58 mΩ MAX	
		(7-5)	58 mΩ MAX	
	Hi-Pot	Pri-Sec	1500 Vrms	
	K1 Factor	983.3		
PA3948.005NL	Pri. Inductance	(4-1) with 3, 2 shorted	40 µH ±10%	 FLYBACK TRANSFORMER
		(4-1) with 3, 2 shorted	32 µH Min at 1.88A	
	Lk. Inductance	(4-1) with (5, 6, 7, 8) shorted	1.6 µH MAX	
	DCR	(4-1)	220 mΩ MAX	
		(7-6)	1275 mΩ MAX	
	Hi-Pot	Pri-Sec	1500 Vrms	
	K1 Factor	983.3		
PA3948.006NL	Pri. Inductance	(4-1) with 3, 2 shorted	40 µH ±10%	 FLYBACK TRANSFORMER
		(4-1) with 3, 2 shorted	32 µH Min at 1.88A	
	Lk. Inductance	(4-1) with (5, 6, 7, 8) shorted	1.65 µH MAX	
	DCR	(4-1)	220 mΩ MAX	
		(7-6)	3350 mΩ MAX	
	Hi-Pot	Pri-Sec	1500 Vrms	
	K1 Factor	983.3		

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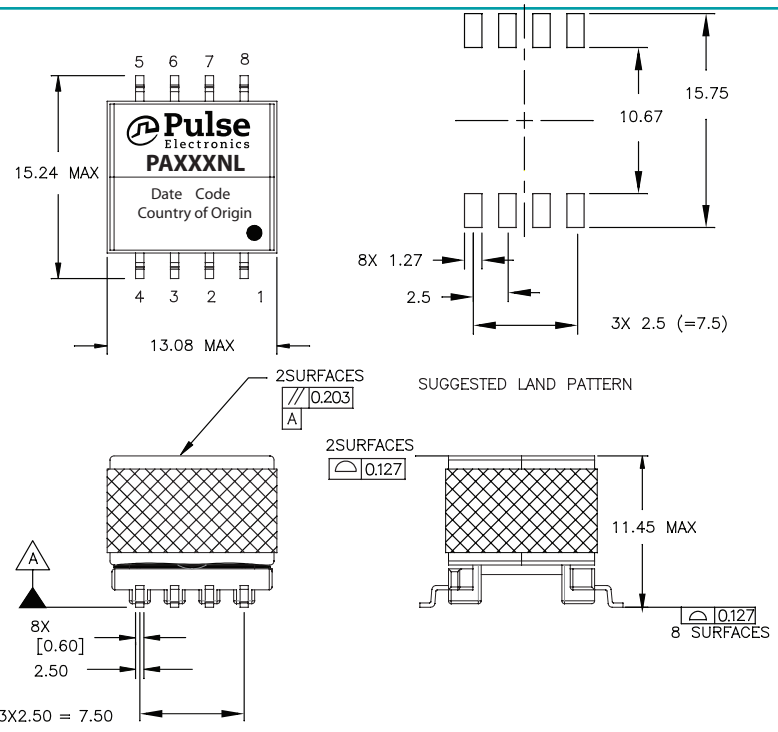
Notes:

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 density, use the following formula:
   Bpk (Gauss) = K1_Factor * Ipk (A)
4. In high volt-sec applications, it is important to calculate the core loss of the transformer. Approximate transformer core loss can be calculated as:
   CoreLoss (W) = 2.5E-14 * (Freq_kHz) $^{1.63}$ * (ΔB_Gauss) $^{2.63}$
   where ΔB can be calculated as:
   For Flyback Topology: ΔB = K1_Factor * (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. PA1133NL becomes PA1133NL**T**). Pulse complies with industry standard tape and reel specification EIA481. The tape and reel for this product has a width (W=32mm), pitch (Po=24mm) an depth (Ko=11.6mm).

Mechanical

PAXXXXNL



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