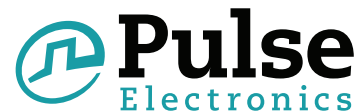


High Frequency Wire Wound Transformers

EP13Plus Platforms - SMT



-  Industry standard footprint, 30% more power handling
-  **Power Range:** Up to 70W
-  **Height:** 14.0mm Max
-  **Footprint:** 17.7mm x 14.5mm Max
-  **Topology:** Forward and Flyback

Pulse PN	Electrical Specifications @25C – Operating Temperature -40C to 130C ¹				Schematic
PA3855.001NL	Pri. Inductance	(1-3)	54uH +/- 10%		
	Lk. Inductance	(1-3) w/ (10,9,6,7,4,5) shorted	0.67uH Max		
	DCR	(1-3)	62	mΩ Max	
		(9-6)	6.5		
		(10-7)	6.5		
		(4-5)	120		
	Hi-Pot	Pri-Sec	2250	Vdc	
K1 Factor	1125.0				
PA3855.002NL	Pri. Inductance	(1-3)	48uH +/- 10%		
	Lk. Inductance	(1-3) w/ (10,9,6,7,4,5) shorted	0.67uH Max		
	DCR	(1-3)	62	mΩ Max	
		(9-6)	10		
		(10-7)	10		
		(4-5)	120		
	Hi-Pot	Pri-Sec	2250	Vdc	
K1 Factor	1000.0				
PA3855.003NL	Pri. Inductance	(1-3)	41uH +/- 10%		
	Lk. Inductance	(1-3) w/ (10,9,6,7,4,5) shorted	0.67uH Max		
	DCR	(1-3)	62	mΩ Max	
		(9-6)	20		
		(10-7)	23		
		(4-5)	120		
	Hi-Pot	Pri-Sec	2250	Vdc	
K1 Factor	854.2				
PA3855.004NL	Pri. Inductance	(1-3)	21uH +/- 10%		
	Lk. Inductance	(1-3) w/ (10,9,6,7,4,5) shorted	0.3uH Max		
	DCR	(1-3)	31	mΩ Max	
		(9-6)	10		
		(10-7)	10		
		(4-5)	180		
	Hi-Pot	Pri-Sec	2250	Vdc	
K1 Factor	538.5				

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Pulse PN	Electrical Specifications @25C – Operating Temperature -40C to 130C ¹				Schematic
PA3855.005NL	Pri. Inductance	(1-3)	21uH +/- 10%		Flyback Transformer
	Lk. Inductance	(1-3) w/ (10,9,6,7,4,5) shorted	0.3uH Max		
	DCR	(1-3)	31	mΩ Max	
		(9-6)	14		
		(10-7)	14		
		(4-5)	180		
	Hi-Pot	Pri-Sec	2250	Vdc	
K1 Factor	583.3				
PA3855.006NL	Pri. Inductance	(1-3)	21uH +/- 10%		Flyback Transformer
	Lk. Inductance	(1-3) w/ (10,9,6,7,4,5) shorted	0.3uH Max		
	DCR	(1-3)	31	mΩ Max	
		(9-6)	58		
		(10-7)	58		
		(4-5)	180		
	Hi-Pot	Pri-Sec	2250	Vdc	
K1 Factor	583.3				
PA3856.001NL	Pri. Inductance	(1-3)	100 uH +/- 15%		Forward Transformer
	Lk. Inductance	(1-3) w/ (10,9,6,7,4,5) shorted	0.4uH Max		
	DCR	(1-3)	29.4	mΩ Max	
		(9-6)	6.5		
		(10-7)	6.5		
		(4-5)	120		
	Hi-Pot	Pri-Sec	2250	Vdc	
K1 Factor	27.8				
PA3856.002NL	Pri. Inductance	(1-3)	100uH +/- 15%		Forward Transformer
	Lk. Inductance	(1-3) w/ (10,9,6,7,4,5) shorted	0.4uH Max		
	DCR	(1-3)	29.4	mΩ Max	
		(9-6)	10		
		(10-7)	10		
		(4-5)	120		
	Hi-Pot	Pri-Sec	2250	Vdc	
K1 Factor	27.8				
PA3856.003NL	Pri. Inductance	(1-3)	100uH +/- 15%		Forward Transformer
	Lk. Inductance	(1-3) w/ (10,9,6,7,4,5) shorted	0.4uH Max		
	DCR	(1-3)	29.4	mΩ Max	
		(9-6)	31.6		
		(10-7)	36		
		(4-5)	120		
	Hi-Pot	Pri-Sec	2250	Vdc	
K1 Factor	27.8				

High Frequency Wire Wound Transformers

EP13Plus Platforms - SMT



Pulse PN	Electrical Specifications @25C – Operating Temperature -40C to 130C ¹			Schematic
PA3856.004NL	Pri. Inductance	(1-3)	128uH +/- 25%	Forward Transformer
	Lk. Inductance	(1-3) w/ (10,9,6,7,4,5) shorted	0.15uH Max	
	DCR	(1-3)	17.6	
		(9-6)	14.4	
		(10-7)	17	
		(4-5)	410	
	Hi-Pot	Pri-Sec	2250 Vdc	
PA3856.005NL	K1 Factor	41.7		Forward Transformer
	Pri. Inductance	(1-3)	128uH +/- 15%	
	Lk. Inductance	(1-3) w/ (10,9,6,7,4,5) shorted	0.15uH Max	
	DCR	(1-3)	17.6	
		(9-6)	31.6	
		(10-7)	36	
		(4-5)	410	
PA3856.006NL	Hi-Pot	Pri-Sec	2250 Vdc	
	K1 Factor	41.7		
	Pri. Inductance	(1-3)	128uH +/- 15%	Forward Transformer
	Lk. Inductance	(1-3) w/ (10,9,6,7,4,5) shorted	0.15uH Max	
	DCR	(1-3)	17.6	
		(9-6)	105.6	
		(10-7)	122	
		(4-5)	426	
	Hi-Pot	Pri-Sec	2250 Vdc	
	K1 Factor	41.7		

Notes:

- The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.
- 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:

$$B_{pk} \text{ (Gauss)} = K1_Factor * I_{pk}(A)$$
- In high volt-μsec applications, it is important to calculate the core loss of the transformer. Approximate transformer core loss can be calculated as:

$$CoreLoss \text{ (W)} = 3.84E-14 * (Freq_kHz)^{1.63} * (DB_Gauss)^{2.63}$$
 where DB can be calculated as:
 For Flyback Topology: $DB = K1_Factor * D(A)$
 For Forward Topology: $DB = K1_Factor * Volt-μsec$
- The standard pin-numbering for this package is indicated in the below mechanical drawing showing pin 1 on the lower right corner and the numbers proceeding clockwise to pin 10 on the upper right corner.
- Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PA3855.001NL becomes PA3855.001NLT). 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) and depth (Ko=13.2mm).

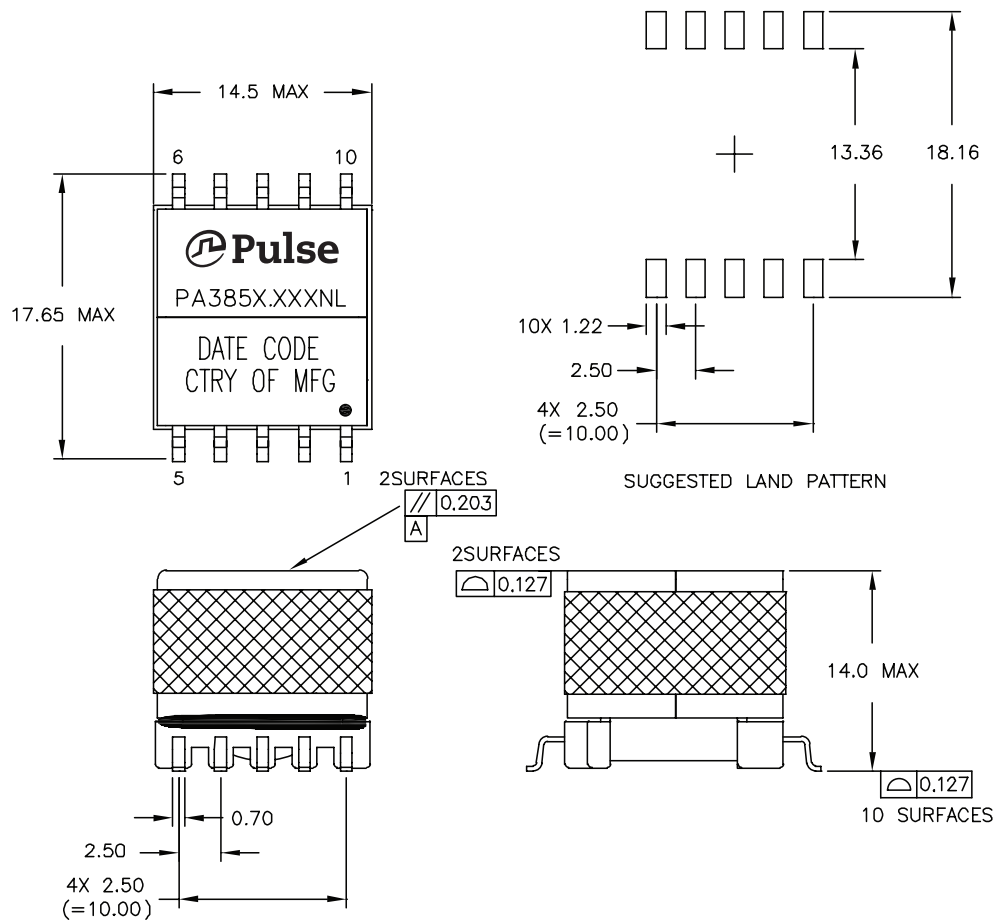
High Frequency Wire Wound Transformers

EP13Plus Platforms - SMT



Mechanical

PA3855.XXNL/ PA3856.XXNL



For More Information

Pulse Worldwide Headquarters

12220 World Trade Drive
San Diego, CA 92128
U.S.A.

Tel: 858 674 8100
Fax: 858 674 8262

Pulse Europe

Zeppelinstrasse 15
71083 Herrenberg
Germany

Tel: 49 7032 7806 0
Fax: 49 7032 7806 12

Pulse China Headquarters

B402, Shenzhen Academy of
Aerospace Technology Bldg.
10th Kejinan Road
High-Tech Zone
Nanshan District
Shenzhen, PR China 518057

Tel: 86 755 33966678
Fax: 86 755 33966700

Pulse North China

Room 2704/2705
Super Ocean Finance Ctr.
2067 Yan An Road West
Shanghai 200336
China

Tel: 86 21 62787060
Fax: 86 2162786973

Pulse South Asia

135 Joo Seng Road
#03-02
PM Industrial Bldg.
Singapore 368363

Tel: 65 6287 8998
Fax: 65 6287 8998

Pulse North Asia

3F No. 198, Zhongyuan Road
Zhongli City
Taoyuan County (32068)
Taiwan

Tel: 886 3 4356768
Fax: 886 3 4356823

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