HIGH FREQUENCY FLAT COIL PLANAR TRANSFORMERS

PH08XXCNL Series (up to 160W)



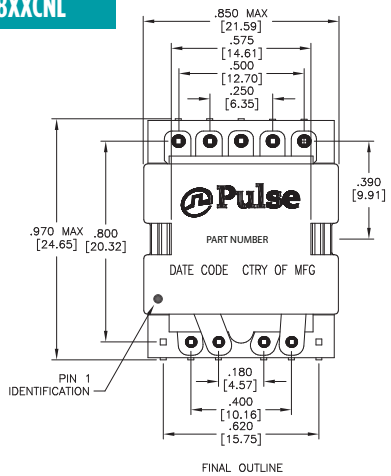
- ***Power Rating:*** *up to 160 W*
- ***Height:*** *9.1mm to 10.1mm Max*
- ***Footprint:*** *24.7mm x 21.6mm Max*
- ***Frequency Range:*** *200kHz to 700kHz*
- ***Isolation (Primary to Secondary):*** *1500 VDC*
- ***Patented:*** *US Pat 9378885*

Electrical Specifications @ 25°C – Operating Temperature -40°C to +125°C

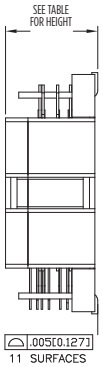
Part[3] Number	Turns			Schematic	Primary[1] Inductance (µ MIN)	Leakage[2] Inductance (µ MAX)	DCR (mΩ MAX)			Maximum Height (mm)
	Primary A	Primary B	Secondary				Primary A	Primary B	Secondary	
PH0801CNL	4T	4T	4T (1T:1T:1T:1T)	A1	153	0.45	8.5	8.5	7	9.1
PH0802CNL	4T	5T			194	0.45	8.5	12.5		
PH0803CNL	5T	5T			240	0.55	12.5	12.5		
PH0804CNL	5T	6T			290	0.60	12.5	14.2		9.6
PH0805CNL	6T	6T			345	0.65	14.2	14.2		
PH0806CNL	4T	4T	1T & 1T	A2	153	0.45	8.5	8.5	1.0 & 1.0	9.1
PH0807CNL	4T	5T			194	0.55	8.5	12.5		
PH0808CNL	5T	5T			240	0.55	12.5	12.5		
PH0809CNL	5T	6T			290	0.90	12.5	14.2		9.6
PH0810CNL	6T	6T			345	1.00	14.2	14.2		
PH0811CNL	4T	4T	2T & 1T	A3	153	0.45	8.5	8.5	1.75 & 1.75	9.1
PH0812CNL	4T	5T			194	0.45	8.5	12.5		
PH0813CNL	5T	5T			240	0.55	12.5	12.5		9.6
PH0814CNL	5T	6T			290	0.65	12.5	14.2		
PH0815CNL	6T	6T			345	0.85	14.2	14.2		10.1

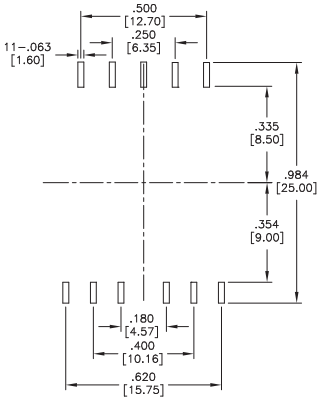
Mechanicals

PH08XXCNL



FINAL OUTLINE





SUGGESTED LAND PATTERN

Weight .....11.8 grams
Tape & Reel 180/reel
Tray 40/tray
Dimensions: Inches / mm

Unless otherwise specified, all tolerances are ± .010 / 0.25

Schematics

PH08XXCNL

Tape & Reel Layout for PH08XXCNL

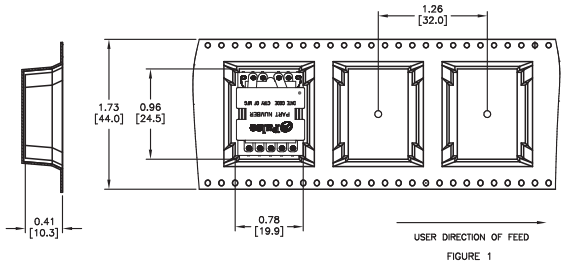
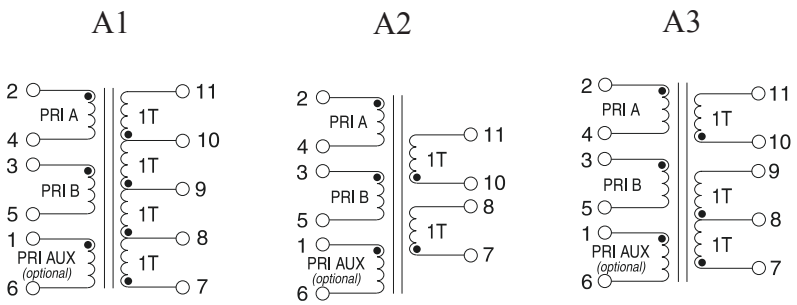
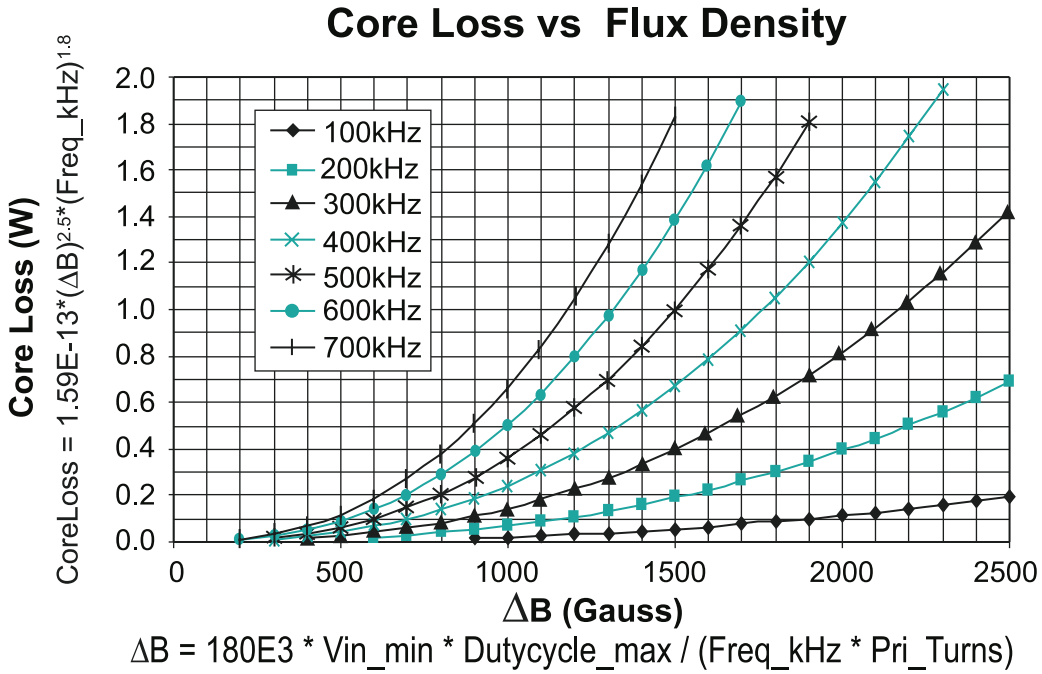


FIGURE 1

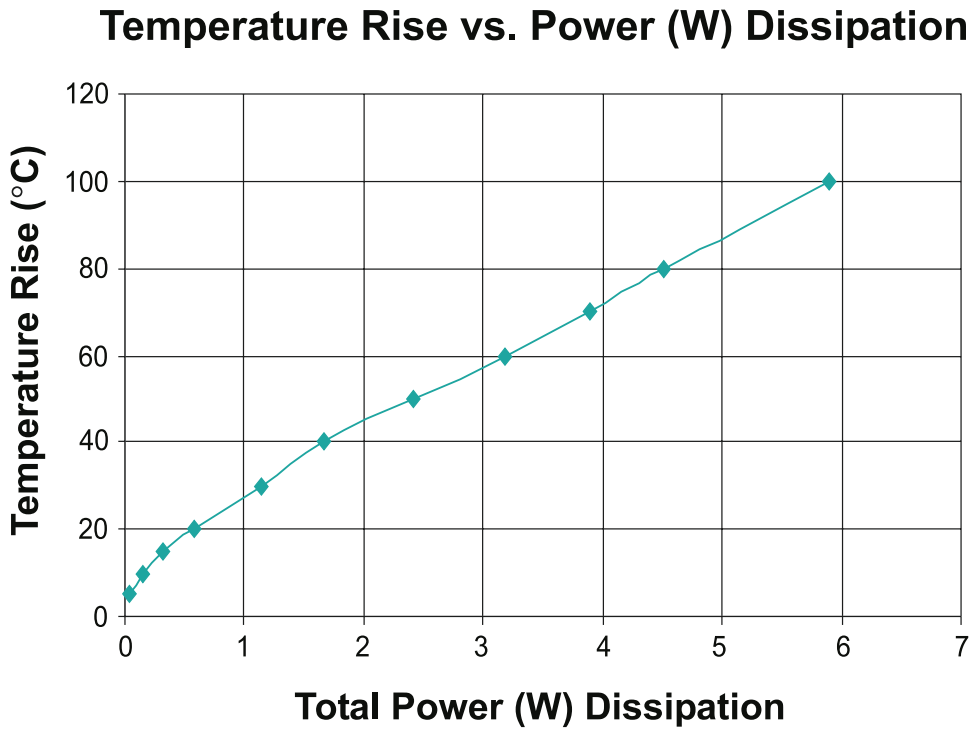


Notes:

1. Inductance is measured with both primary windings connected in services (2 to 5, with 3 and 4 shorted).
2. Leakage inductance is measured on winding (2-5) with (3-4) and (7, 8, 9, 10, 11) shorted.
3. The "NL" suffix indicates an RoHS-compliant part number.
4. It is possible to add a primary side aux.winding to any of the above configurations as shown in the schematics. Transformers with primary side aux. winding are non-standard and can be made available upon request. The primary aux. winding can be between 2 and 16 turns. To add a primary aux. winding to a given base, use the extension .xxx. For example, to add a 4T aux. winding to the base part number PH0801CNL, use the part number PH0801.004CNL. The height increases to 10.1mm MAX for PH0810.xxxCNL. For the other part numbers there is no change to the height..
5. Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the complete number (i.e. **PH0801.009CNL** becomes **PH00801.009CNLT**).
6. To determine if the transformer is suitable for your application, it is necessary to ensure that the temperature rise of the component (ambient plus temperature rise) not exceed its operating temperature. To determine the approximate temperature rise of the transformer, refer to the graphs below.



ΔB = 180E3 * Vin_min * Dutycycle_max / (Freq_kHz * Pri_Turns)



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