HIGH FREQUENCY PLANAR TRANSFORMERS

Prism Series (up to 250W)

- **Power Rating:** up to 250W
- **Height:** 9.3mm to 10.4mm Max
- **Footprint:** 29.5mm x 25.4mm Max
- **Frequency Range:** 200kHz to 700kHz

Electrical Specifications @ 25°C — Operating Temperature -40°C to +125°C									
Part Number	Turns Ratio		Primary[2] Secondary Isolation	Primary Inductance (µH MIN)	Leakage** Inductance (µH MAX)	DCR (mΩ MAX)			Maximum Height (mm)
	Primary	Secondary				Primary A	Primary Aux.	Secondary	
DOUBLE INTERLEAVE DESIGNS (HIGHER EFFICIENCY, LOWER DCR AND LOWER LEAKAGE)									
PA0526	5T (with 5T Aux.)	1T & 1T	1500Vdc Basic	85	—	7.5	235	.56 & .56	10.2
PA0550	5T (with 5T Aux.)	2T:2T	1500Vdc Basic	85	—	7.5	235	2.25 & 2.25	10.2
SINGLE INTERLEAVE DESIGNS (LOWER COST)									
PA0442	5T (with 5T Aux.)	2T:2T	1500Vdc Basic	85	1.5	14.5	465	1.7 & 1.7	9.3
PA0576	6T (with 2T Aux.)	2T & 1T	1500Vdc Basic	130	0.25	21.5	155	1.8 & 0.6	9.3
PA0581	6T (with 2T Aux.)	7T & 7T	1500Vdc Basic	102	—	21.5	155	40 & 40	9.3

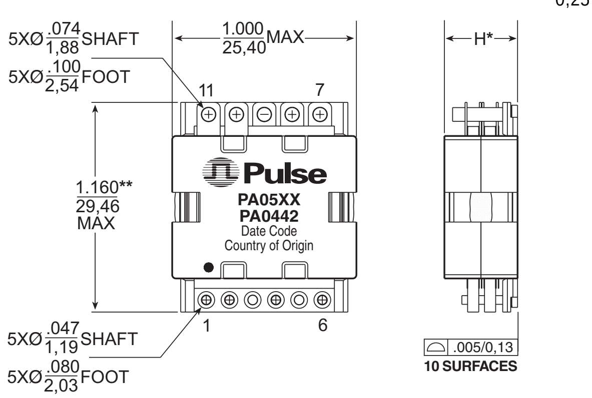
Notes: **Leakage inductance is measured with both primary windings connected in series (where applicable) with the secondary windings shorted.

Mechanical

Weight ....19.8 grams
Tray 30/tray

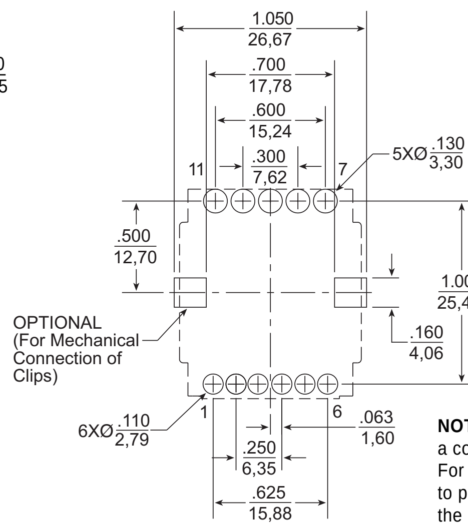
Dimensions: Inches / mm

Unless otherwise specified, all tolerances are ± .010 / 0,25



*H - Maximum Height (see table above)
This dimension is 1.195/30.35 for PN **PA0581

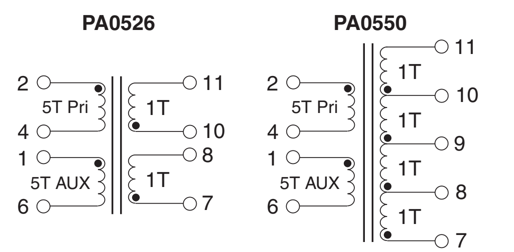
SUGGESTED PAD LAYOUT



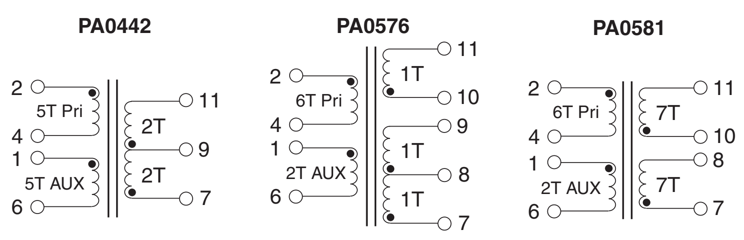
NOTE: The above is a universal footprint for a component that has all 11 pins populated. For a given part number it is only necessary to provide pads for the terminations shown in the schematic below.

Schematics

— DOUBLE INTERLEAVE SCHEMATICS —



— SINGLE INTERLEAVE SCHEMATICS —



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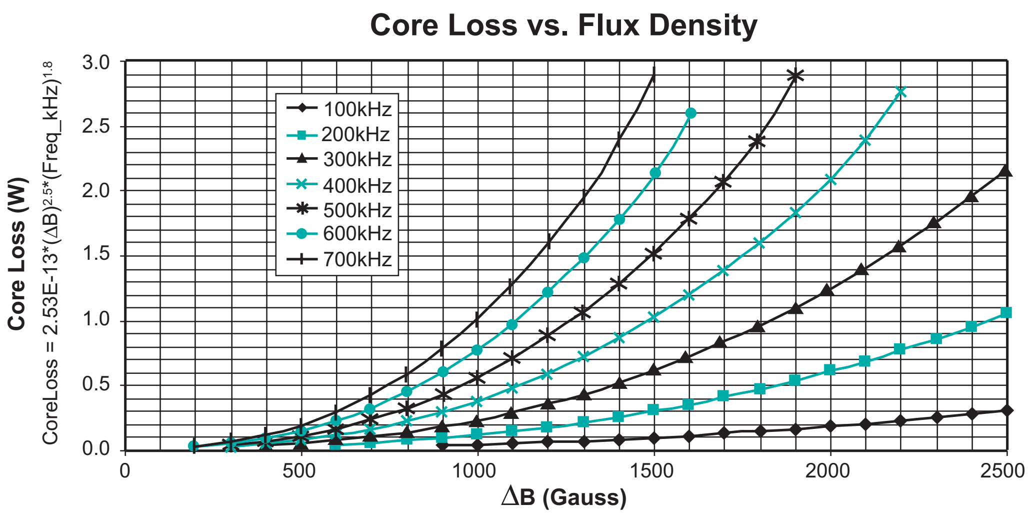
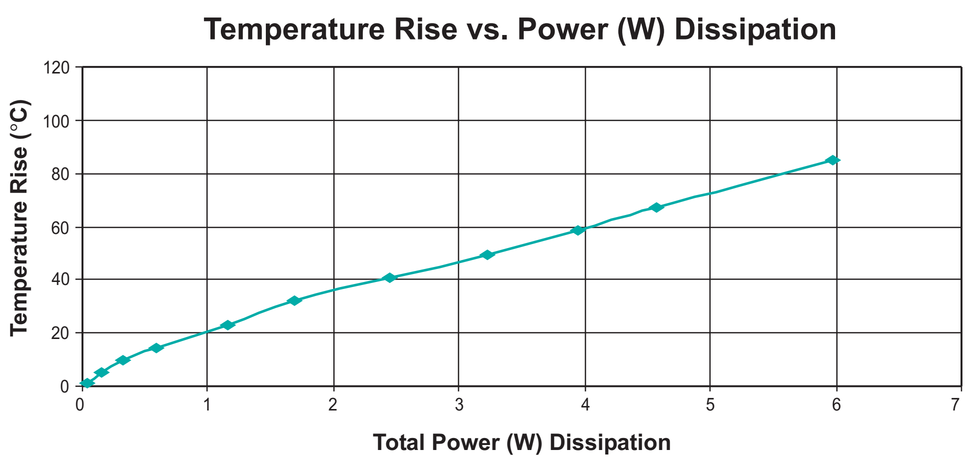
Prism Series (up to 250W)

Notes from Tables

1. The above transformers have been tested and approved by Pulse's IC partners and are cited in the appropriate datasheet or evaluation board documentation at these companies. To determine which IC and IC companies are matched with the above transformers, please refer to the IC cross reference on the Pulse web page. Other winding configurations are available. Please contact Pulse Power Applications Engineering for more information.
2. To determine if the transformer is suitable for your application, it is necessary to ensure that the temperature rise of the component (ambieint plus temperature rise) does not exceed its operating temperature. To determine the approximate temperature rise of the transformer, refer to the graphs below.



ΔB = 120E3 * Vin_min * Dutycycle_max / (Freq_kHz * Pri_Turns)



Total Power Dissipation (W) = .001 * (DCRprimary * Irms_primary^2 + DCRsecondary * Irms_secondary^2) + Core Loss (W)

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