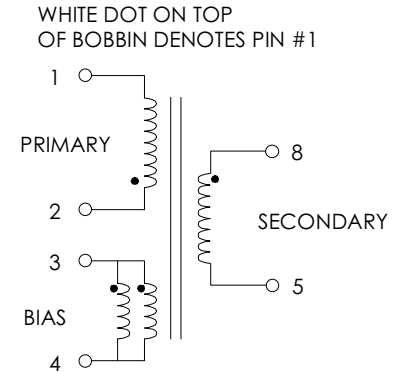


TABLE 1: ELECTRICAL SPECIFICATIONS AT 25 °C
SWITCHING TRANSFORMER DESIGNED FOR USE WITH POWER INTEGRATIONS
PWR-TOP202YAI. REFER TO APPLICATION CIRCUIT OF FIGURE 3.

PARAMETER	SPEC LIMITS			UNITS
	MIN.	TYP.	MAX.	
PRIMARY INDUCTANCE (2-1) VOLTAGE = 0.250Vrms FREQUENCY = 100 KHZ	558	620	682	μHY
TURN RATIO'S: SECONDARY (8-5) : PRIMARY (2-1) BIAS (3-4) : PRIMARY (2-1)	----- -----	1: 6.00 1:10.80	----- -----	± 4% ± 4%
PRI LEAKAGE IND. (8-5 SHORTED) VOLTAGE = 0.250Vrms FREQUENCY = 100 KHZ	-----	-----	20.0	μHY
HIPOT: PRIMARY TO SECONDARY BIAS TO SECONDARY	3000 3000	----- -----	----- -----	Vrms Vrms
APP CIRCUIT PARAMETERS: (1) AC LINE VOLTAGE 47/400 Hz OUTPUT VOLATGE OUTPUT CURRENT CONTINUOUS OUTPUT CURRENT PEAK LINE REGULATION (85 TO 265Vac) LOAD REGULATION 10-100% RIPPLE	85 0.0 ----- ----- ----- ----- -----	----- 22.0 ----- ----- 0.20 0.20 50.0	265 700 850 ----- ----- -----	Vac Vdc mA mA ±% ±% ±mV

FIGURE 1: SCHEMATIC DIAGRAM



NOTE1:
REINFORCED INSULATION SYSTEM, UL1950, IEC950, CSA-950:
A) ALL MATERIALS MEET "UL", "CSA" & "IEC" REQUIREMENTS
B) TRIPLE BASIC INSULATED SECONDARY.
C) DESIGNED TO MEET ≥6.2mm CREEPAGE REQUIREMENTS.
D) VARNISH FINISHED ASSEMBLY.
E) UL1950 & CSA-950 CERTIFIED: FILE #E162344.
F) UL CLASS (B) 130 INSULATION SYSTEM PM130-R1,
PM130-H1, PM130-H1A (UL FILE #E177139) OR ANY UL
AUTHORIZED CLASS (B) INSULATION SYSTEM.

(1) REFER TO APPLICATION CIRCUIT OF FIGURE 3.

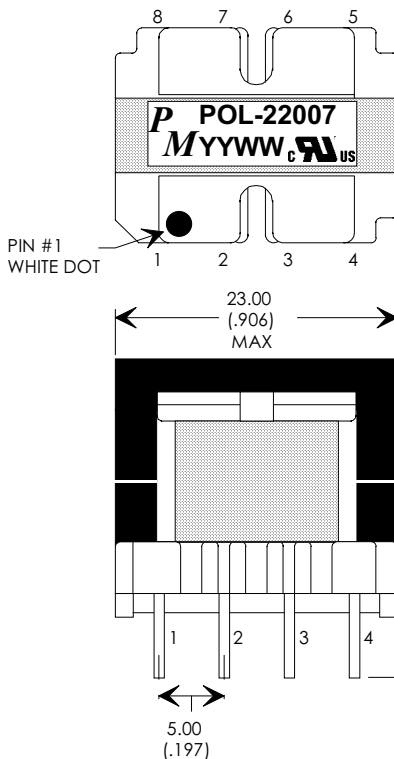
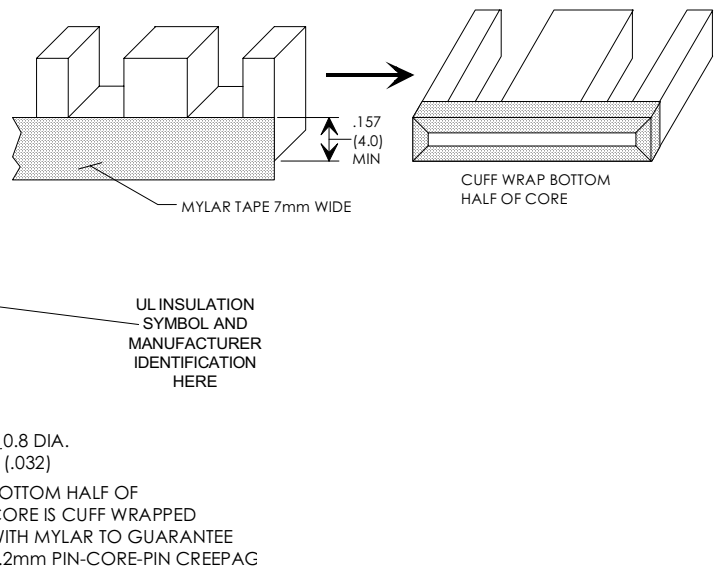


FIGURE 2: PHYSICAL DIMENSIONS mm (INCHES)

NOTE2:
A) BOTTOM HALF OF CORE IS CUFF WRAPPED
PRIOR TO ASSEMBLY. THIS GAURANTEES
5mm CREEPAGE PIN-CORE-PIN



EI22/19/6, 8-PIN VERTICAL BOBBIN

REV.	DESCRIPTION OF CHANGES	BY
3/21/96	ORIGINAL RELEASE	TO
04/21/99	UPDATE TO UL CLASS (B) 130 INSULATION SYSTEM	MD



**Premier
Magnetics Inc.**

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN MM
DIMENSIONAL TOLERANCES ARE:
DECIMALS ANGLES
.X ± .25 ±0° 30'
.XX ± .15
DO NOT SCALE DRAWING

TRANSFORMER CONTROL DRAWING

PREMIER P/N: POL-22007	REVISION: 04/21/99
DRAWN BY: TOM O'NEIL	REF: PWR-TOP202YAI
SCALE: NONE	SHEET: 1 OF 6

APPLICATION NOTES

Premier Magnetics' POL-22007 Switch Mode Transformer was designed for use with Power Integrations, Inc. PWR-TOP202YA1 three terminal off-line PWM switching regulator in the Flyback Buck-Boost circuit configuration. This conversion topology can provide isolated multiple outputs with efficiencies up to 90%. Premiers' POL-22007 transformer has been optimized to provide maximum power throughput.

The PWR-TOPXXX series from Power Integrations, Inc. are self contained 100KHz three terminal voltage controlled PWM switching regulators. This series contains all necessary functions for an off-line switched mode control DC power source. These switching regulators provide a very simple solution to off-line designs. The inductors and transformer used with the PWR-TOPXXX are critical to the performance of the circuit. They define the overall efficiency, output power and overall physical size.

Below is a universal input high precision 15 watt application circuit utilizing Power Integrations PWR-TOP202 switching regulator in the flyback buck-boost configuration. The component values listed are intended for reference purposes only. The soft start capacitor C_{SS} is optional depending on the specific application.

FIGURE 3: TYPICAL APPLICATION CIRCUIT

PREMIER MAGNETICS PART NUMBERS:
(REQUEST DATA SHEETS BY PART#)

L1 = PMCU-0330 33mHy EMI/RFI CMC

T1 = POL-22007 MAIN SWITCHING TRANSFORMER

L2 = VTP-01001 10uHy, 1.0Amp INDUCTOR

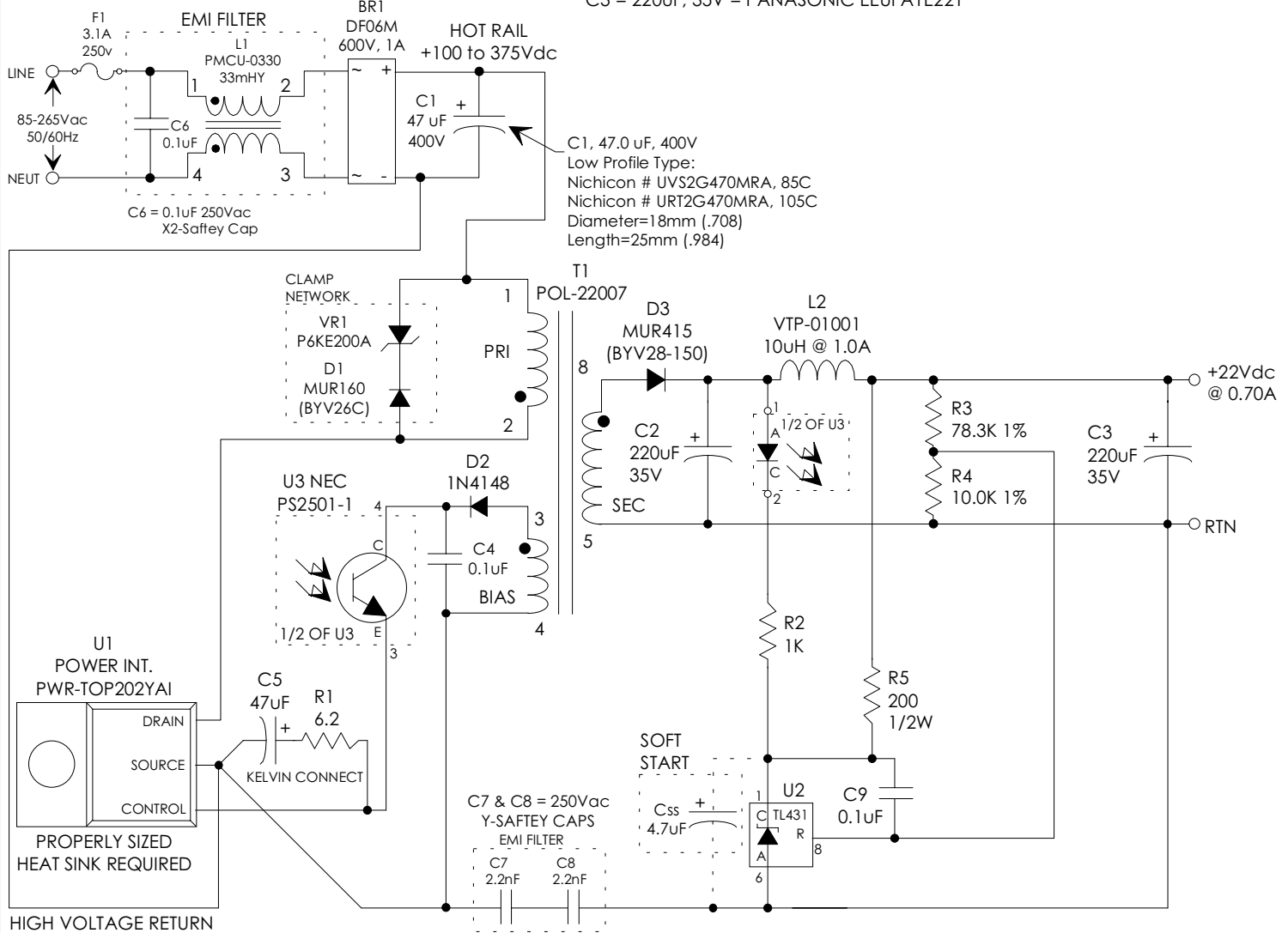
ALUMINUM ELECTROLYTIC FILTER CAPACITOR RATINGS:

+22V OUTPUT: C2 $\geq 35V$, Ripple Rated $\geq 800mA$ @ 100KHz @ Max. Op. Temp.

PANASONIC FA SERIES: LOW IMPEDANCE LONG LIFE RADIAL SERIES

C2 = 220uF, 35V = PANASONIC EEUFA1E221

C3 = 220uF, 35V = PANASONIC EEUFA1E221



***Premier
Magnetics Inc.***

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN MM
DIMENSIONAL TOLERANCES ARE:

DECIMALS	ANGLES
.X $\pm$.25	$\pm 0^{\circ} 30'$
.XX $\pm$.15	

DO NOT SCALE DRAWING

TRANSFORMER CONTROL DRAWING

PREMIER P/N: POL-22007

REVISION: 04/21/99

DRAWN BY: TOM O'NEIL

REF: PWR-TOP202YAI

SCALE: NONE

SHEET: 2 OF 6