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	SI MIN.	EC LIMIT	S MAX.	UNITS
PRIMARY INDUCTANCE (2-1) VOLTAGE = 0.250Vrms FREQUENCY = 100 KHZ	558	620	682	μНΥ
TURN RATIO'S: SECONDARY (8-5): PRIMARY (2-1) BIAS (3-4): PRIMARY (2-1)		1: 7.71 1: 7.71		<u>+</u> 4% <u>+</u> 4%
PRI LEAKAGE IND. (8-5 SHORTED) VOLTAGE = 0.250Vrms FREQUENCY = 100 KHZ			20.0	μНΥ
HIPOT: PRIMARY TO SECONDARY BIAS TO SECONDARY	3000 3000			Vrms Vrms
APP CIRCUIT PARAMETERS: (1) AC LINE VOLTAGE 47/400 Hz OUTPUT VOLTAGE OUTPUT CURRENT CONTINUOUS OUTPUT CURRENT PEAK LINE REGULATION (85 TO 265Vac) LOAD REGULATION 10-100% RIPPLE	85 0.0 	12.0 0.20 0.20 50.0	265 1.20 1.40 	Vac Vdc Amps Amps ±% ±% ±mV

FIGURE 1: SCHEMATIC DIAGRAM

WHITE DOT ON TOP

OF BOBBIN DENOTES PIN #1 **PRIMARY** ○ 8 **SECONDARY** ○ 5

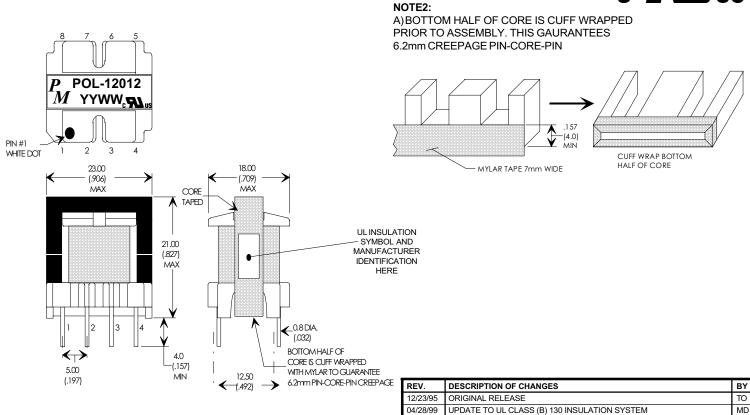
NOTE1:

- 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)





Premier Magnetics Inc.

EI22/19/6, 8-PIN VERTICAL BOBBIN

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM DIMENSIONAL TOLERANCES ARE: DECIMALS **ANGLES**

±0 ° 30' .X ± .25 .XX ± .15 DO NOT SCALE DRAWING

TRANSFORMER CONTROL DRAWING			
PREMIER P/N: POL-12012	REVISION: 04/28/99		
DRAWN BY: TOM O'NEIL	REF: PWR-TOP202YAI		

SCALE: NONE

SHEET: 1 OF 6

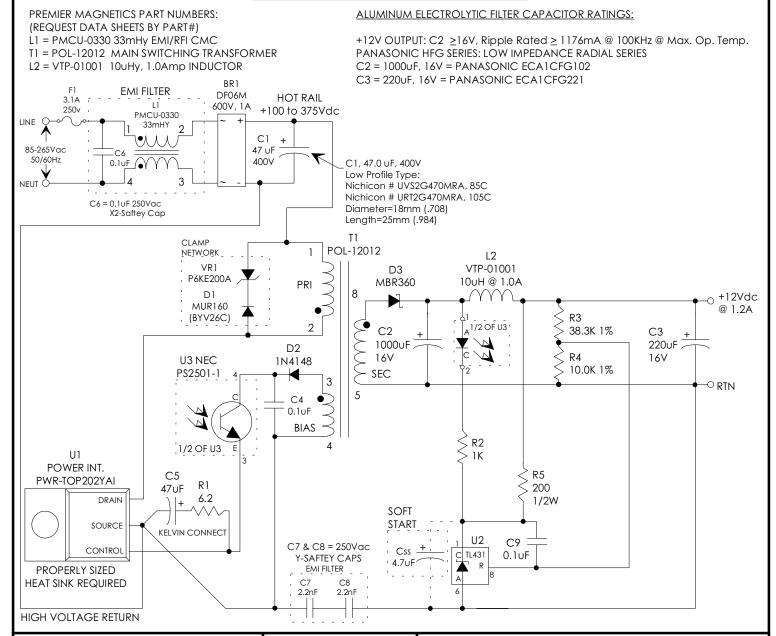
APPLICATION NOTES

Premier Magnetics' POL-12012 Switch Mode Transformer was designed for use with Power Integrations, Inc. PWR-TOP202YAI 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-12012 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 Css is optional depending on the specific application.

FIGURE 3: TYPICAL APPLICATION CIRCUIT





UNLESS OTH	ERWISE SPECIFIED
DIMENSIONS.	ARE IN MM
DIMENSIONAL	TOLERANCES ARE:
DECIMALS	ANGLES
.X ± .25	±0 ° 30'
VV ± 15	

DO NOT SCALE DRAWING

TRANSFORMER CONTROL DRAWING				
PREMIER P/N: POL-12012	REVISION: 04/28/99			
DRAWN BY: TOM O'NEIL	REF: PWR-TOP202YAI			
SCALE: NONE	SHEET: 2 OF 6			