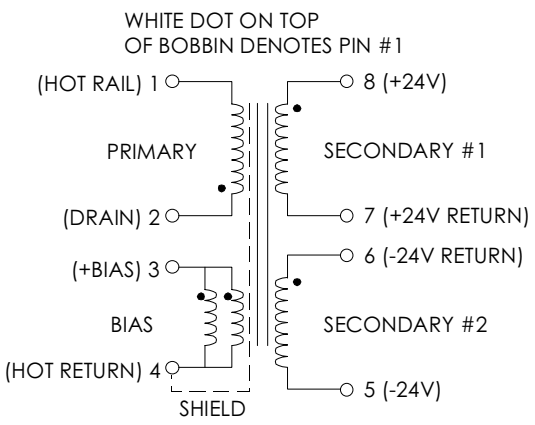
TABLE 1: ELECTRICAL SPECIFICATIONS AT 25 °C

SWITCHING TRANSFORMER DESIGNED FOR USE WITH POWER INTEGRATIONS TOP224P. REFER TO APPLICATION CIRCUIT OF FIGURE 3.

PARAMETER	SPEC LIMITS MIN.	TYP.	MAX.	UNITS
PRIMARY INDUCTANCE (2-1) VOLTAGE = 0.250Vrms FREQUENCY = 100 KHZ	585	650	715	µHY
TURN RATIO'S: BIAS (3-4) : PRIMARY (2-1) SEC #1 (8-7) : PRIMARY (2-1) SEC #2 (6-5) : PRIMARY (2-1)	 -------- -------- --------	 1: 8.375 1: 4.250 1: 4.250	 -------- -------- --------	 ±4% ±4% ±4%
PRI LEAKAGE IND. (SEC SHORTED) VOLTAGE = 0.250Vrms FREQUENCY = 100 KHZ	--------	--------	44	µHY
HIPOT: PRIMARY & BIAS TO SECONDARIES	3000	--------	--------	Vrms
APP CIRCUIT PARAMETERS: (1) AC LINE VOLTAGE 47/400 Hz SEC #1 OUTPUT VOLTAGE OUTPUT CURRENT CONTINUOUS SEC #1 OUTPUT VOLTAGE OUTPUT CURRENT CONTINUOUS PEAK CURRENT OUT, EACH SEC. LINE REGULATION (85 TO 265Vac) LOAD REGULATION 10-100% RIPPLE	 85 50 50 -------- -------- -------- --------	 -------- +24.0 -------- -24.0 -------- -------- 0.20 0.20 50.0	 265 +400 -400 ±450 -------- -------- --------	 Vac Vdc mA Vdc mA mAmps ±% ±% ±mV

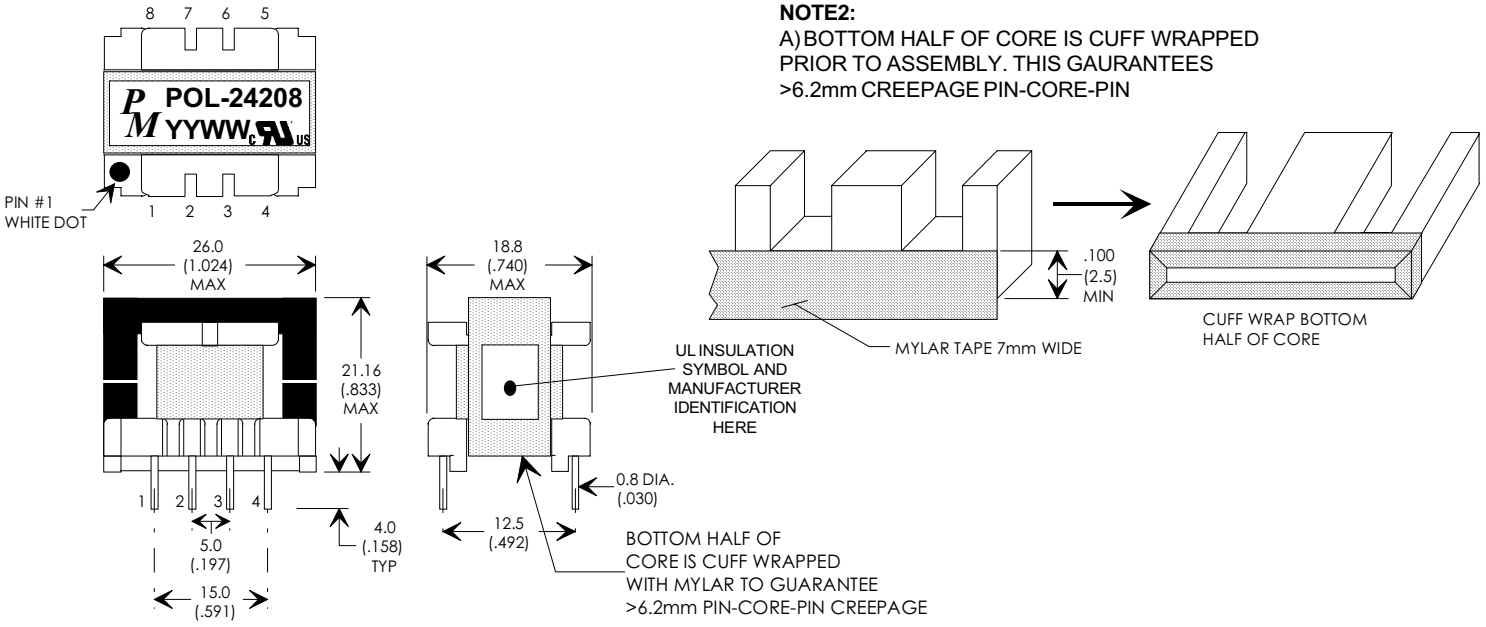
(1) REFER TO RD5 APPLICATION CIRCUIT OF FIGURE 3.

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.

FIGURE 2: PHYSICAL DIMENSIONS mm (INCHES)



NOTE2:
A) BOTTOM HALF OF CORE IS CUFF WRAPPED PRIOR TO ASSEMBLY. THIS GAURANTEES >6.2mm CREEPAGE PIN-CORE-PIN

REV.	DESCRIPTION OF CHANGES	BY
06/24/98	ORIGINAL RELEASE	PP
02/18/99	UPDATE PER SAMPLE	PP
04/28/99	UPDATE TO UL CLASS (B) 130 INSULATION SYSTEM	MD

EE25.4 (FEI25, FEE25, EE2425), 8-PIN VERTICAL BOBBIN

Premier Magnetics Inc.
"INNOVATORS IN MAGNETICS TECHNOLOGY"

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-24208	REVISION: 04/28/99
ENGR: PETER PHAM	REF: TOP224P
SCALE: NONE	SHEET: 1 OF6

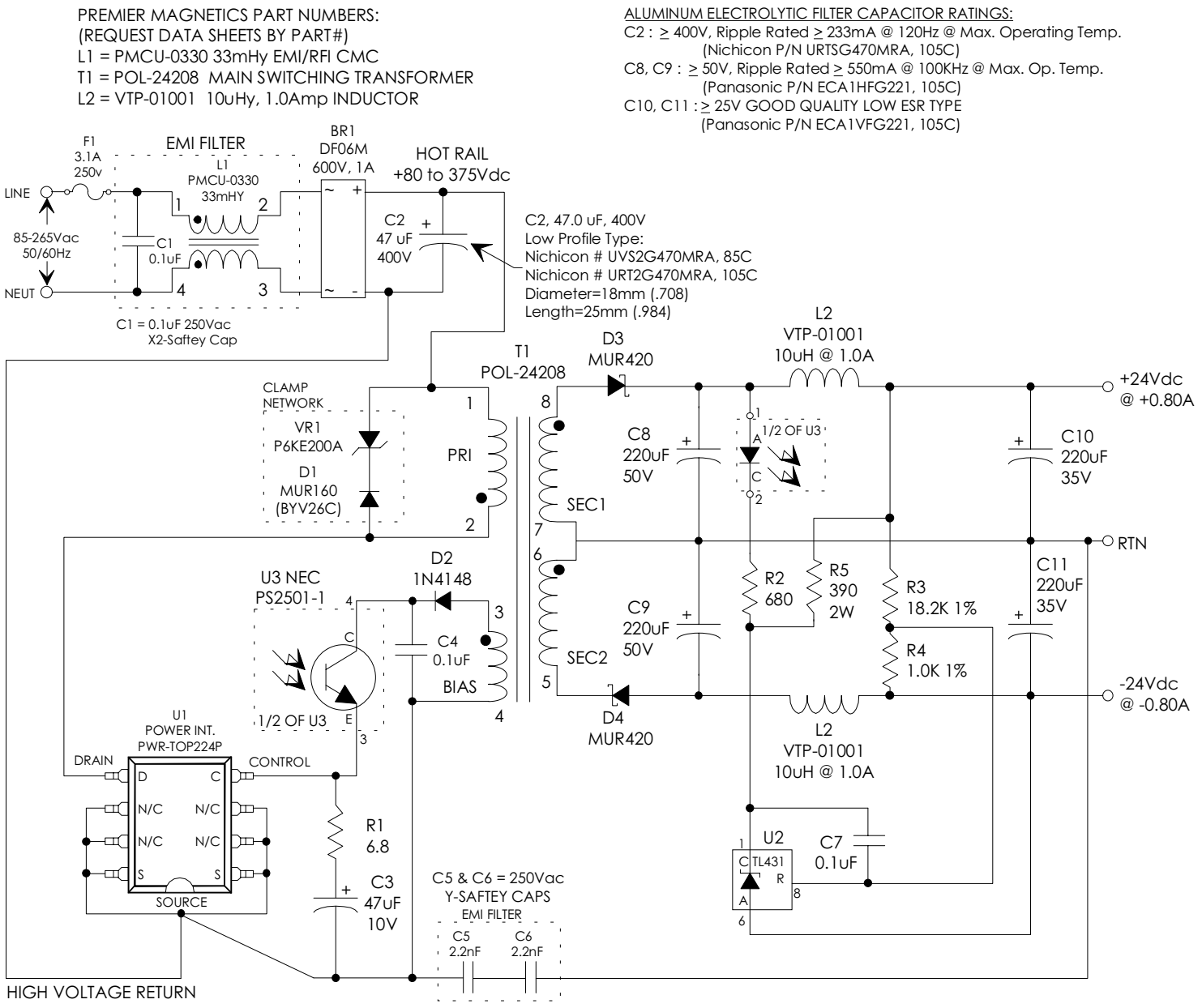
APPLICATION NOTES

Premier Magnetics' POL-24208 Switch Mode Transformer was designed for use with Power Integrations, Inc. PWR-TOP224P 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-24208 transformer has been optimized to provide maximum power throughput.

The TOPSwitch-II 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 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 20 watt application circuit utilizing Power Integrations TOP224 switching regulator in the flyback buck-boost configuration. The component values listed are intended for reference purposes only.

FIGURE 3: TYPICAL APPLICATION CIRCUIT



Premier Magnetics Inc. "INNOVATORS IN MAGNETICS TECHNOLOGY"	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM DIMENSIONAL TOLERANCES ARE: DECIMALS .X ± .25 .XX ± .15 ANGLES ±0° 30' DO NOT SCALE DRAWING	**TRANSFORMER CONTROL DRAWING**
		PREMIER P/N: POL-24208 / REVISION: 04/28/99
		ENGR: PETER PHAM / REF: TOP224P
		SCALE: NONE / SHEET: 2 OF6