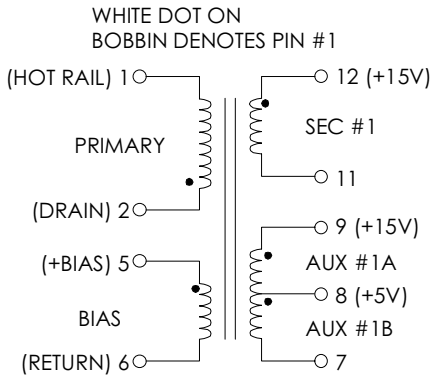
TABLE 1: ELECTRICAL SPECIFICATIONS AT 25 °C

SWITCHING TRANSFORMER DESIGNED FOR USE WITH POWER INTEGRATIONS PWR-TOP204YAI. REFER TO APPLICATION CIRCUIT OF FIGURE 3.

PARAMETER	SPEC LIMITS MIN.	TYP.	MAX.	UNITS
PRIMARY INDUCTANCE (2-1) VOLTAGE = 0.250Vrms FREQUENCY = 100 KHZ	320	350	380	µHY
TURNS RATIO'S:				
SEC (12-11) : PRIMARY (2-1)	--------	1: 3.44	--------	± 4%
AUX#1A (9-8) : PRIMARY (2-1)	--------	1: 4.43	--------	± 4%
AUX#1B (8-7) : PRIMARY (2-1)	--------	1: 10.33	--------	± 4%
BIAS (5-6) : PRIMARY (2-1)	--------	1: 4.43	--------	± 4%
HIPOT:				
PRIMARY, BIAS & AUX'S TO SEC	3750	--------	--------	Vrms
PRIMARY & BIAS TO AUX'S	3750	--------	--------	Vrms
APP CIRCUIT PARAMETERS: (1)				
AC LINE VOLTAGE 47/400 Hz	85	--------	265	Vac
OUTPUT VOLTAGE-AUX #1B (2)		+5.0		Vdc
OUTPUT CURRENT-AUX #1B	0.05	--------	1.2	Amps
OUTPUT VOLTAGE-AUX #1A		+15.0		Vdc
OUTPUT CURRENT-AUX #1A	0.01	--------	.200	Amps
OUTPUT VOLTAGE-SEC (3)		+15.0		Vdc
OUTPUT CURRENT-SEC	0.01	--------	.200	Amps
LINE REGULATION (85 TO 135Vac)	--------	0.50	--------	±%
LOAD REGULATION 0-100%	--------	0.50	--------	±%
RIPPLE	--------	50.0	--------	±mV

(1) REFER TO APPLICATION CIRCUIT OF FIGURE 3.
(2) AUX #1B IS THE MAIN FEEDBACK CONTROL WINDING.
(3) SECONDARY VOLTAGE IS OBTAINED VIA A LINEAR REGULATOR.

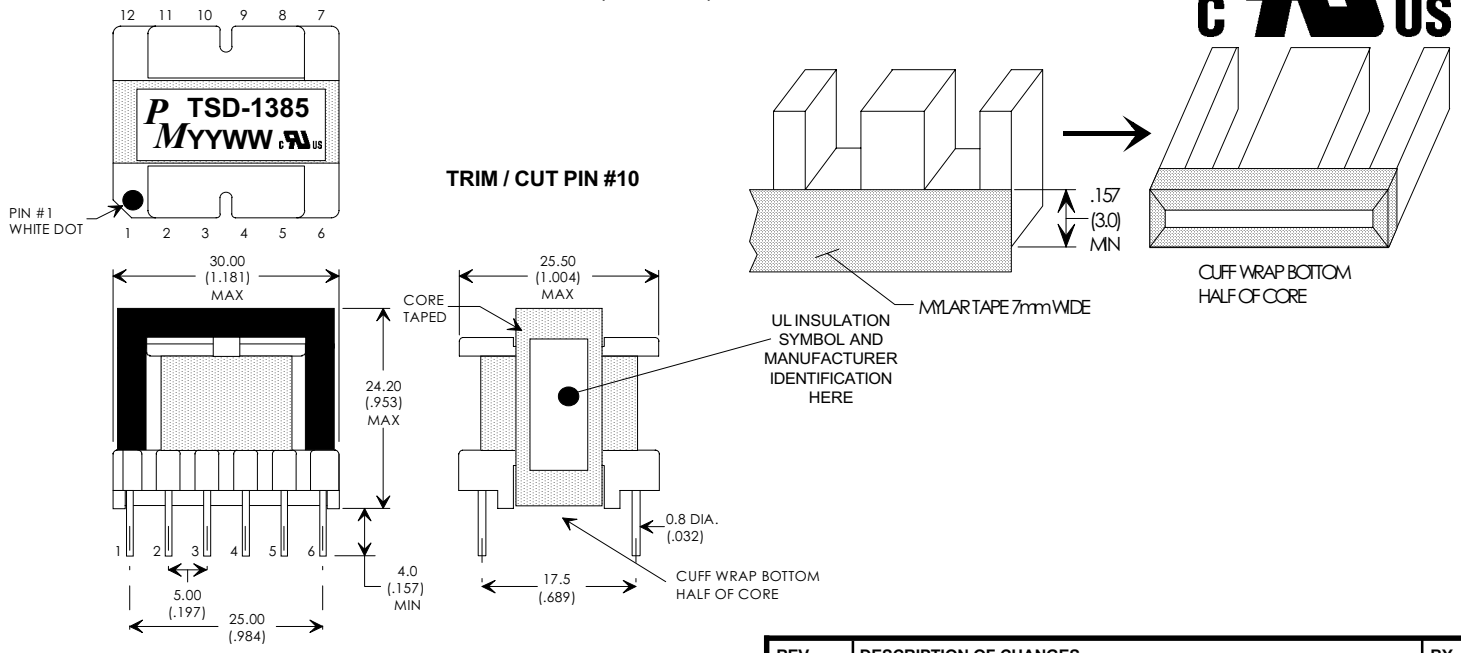
FIGURE 1: SCHEMATIC DIAGRAM



TRIPLE INSULATION ON AUX'S AND SECONDARY
ISOLATION BETWEEN AUX'S AND SECONDARY

NOTE1:
REINFORCED INSULATION SYSTEM, UL1950, IEC950, CSA-950:
A) ALL MATERIALS MEET "UL", "CSA" & "IEC" REQUIREMENTS
B) UL1950, CSA-950, IEC742/950 & VDE.
C) TRIPLE BASIC INSULATED SECONDARY.
D) DESIGNED TO MEET ≥6.2mm CREEPAGE REQUIREMENTS.
E) VARNISH FINISHED ASSEMBLY.
F) UL1950 & CSA-950 CERTIFIED: FILE #E162344.
G) 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)



REV.	DESCRIPTION OF CHANGES	BY
06/08/99	REDESIGN TO MEET CUSTOMER NEW REQUIREMENT	PP
06/29/99	ADD CUFF WRAP AND NOTE 1	PP
07/21/99	REDESIGN TO 5,15 & 15 Vdc	PP
09/02/99	CHANGE # TURNS OF SEC#1 FROM 10T TO 9T	PP
09/21/99	UPDATE TO UL CLASS (B) 130 INSULATION SYSTEM	MD
01/05/00	UPDATE TO UL RECOGNIZED CONSTRUCTIION #E162344	MD
02/03/00	CORRECT TURN RATIO TEST	PP

EE, EI28/11, 12-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

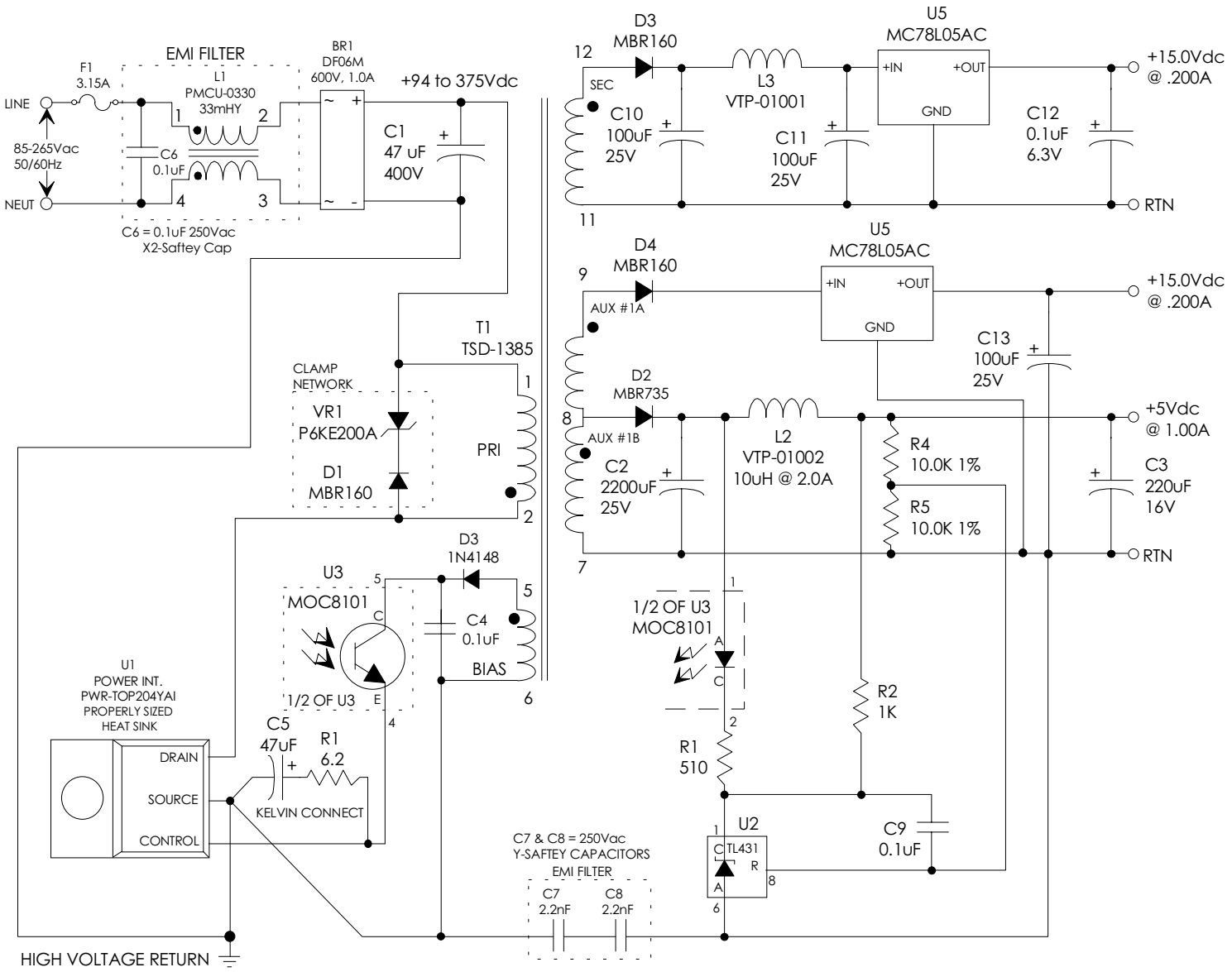
PREMIER P/N: TSD-1385	REVISION: 02/03/00
ENGR: PETER PHAM	REF: PWR-TOP204
SCALE: NONE	SHEET: 1 OF 6

APPLICATION NOTES

Premier Magnetics' TSD-1385 Switch Mode Transformer was designed for use with Power Integrations, Inc. PWR-TOP204YAI three terminal off-line PWM switching regulator in the Flyback Buck-Boost circuit configuration. 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 (85Vac to 265Vac) input high precision 15 watt application circuit utilizing Power Integrations PWR-TOP204 switching regulator. This circuit provides three precision outputs. The "MAIN" output of Aux #1B is optically fed back to the PWR-TOP204 controller to close the voltage feedback loop. Secondary #1 is fed into a linear regulator to provide a high precision output. 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: TSD-1385 / REVISION: 02/03/00
		ENGR: PETER PHAM / REF: PWR-TOP204
		SCALE: NONE / SHEET: 2 OF 6