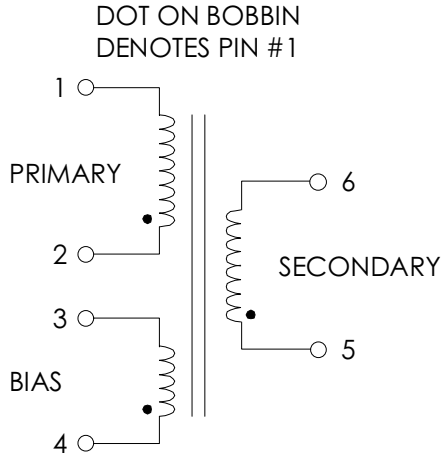
TABLE 1: ELECTRICAL SPECIFICATIONS AT 25 °C

SWITCHING TRANSFORMER DESIGNED FOR USE WITH POWER INTEGRATIONS PWR-TOP209PFI (TRD3) REFER TO APPLICATION CIRCUIT OF FIGURE 3.

PARAMETER	SPEC LIMITS MIN.	TYP.	MAX.	UNITS
PRIMARY INDUCTANCE (2-1) FREQ. = 100 KHZ @ 0.250Vrms	9.00	10.00	11.00	mHY
TURN RATIO'S:				
SECONDARY (5-6) : PRIMARY (2-1)	-------	1:16.25	-------	± 3%
BIAS (4-3) : PRIMARY (2-1)	-------	1:10.26	-------	± 3%
PRI LEAKAGE IND. (5-6 SHORTED) FREQ. = 100 KHZ @ 0.250Vrms	-------	-------	220.0	µHY
HIPOT:				
PRIMARY TO SECONDARY	3000	-------	-------	Vrms
BIAS TO SECONDARY	3000	-------	-------	Vrms
APP CIRCUIT PARAMETERS: (1)				
DC HOT RAIL VOLTAGE	90	-------	375	Vdc
OUTPUT VOLTAGE		7.5		Vdc
OUTPUT CURRENT CONTINUOUS	0.0	-------	265	mA
OUTPUT CURRENT PEAK	-------	-------	300	mA
LINE REGULATION (85 TO 265Vac)	-------	1.50	-------	±%
LOAD REGULATION 10-100%	-------	5.00	-------	±%
RIPPLE	-------	50.0	-------	±mV

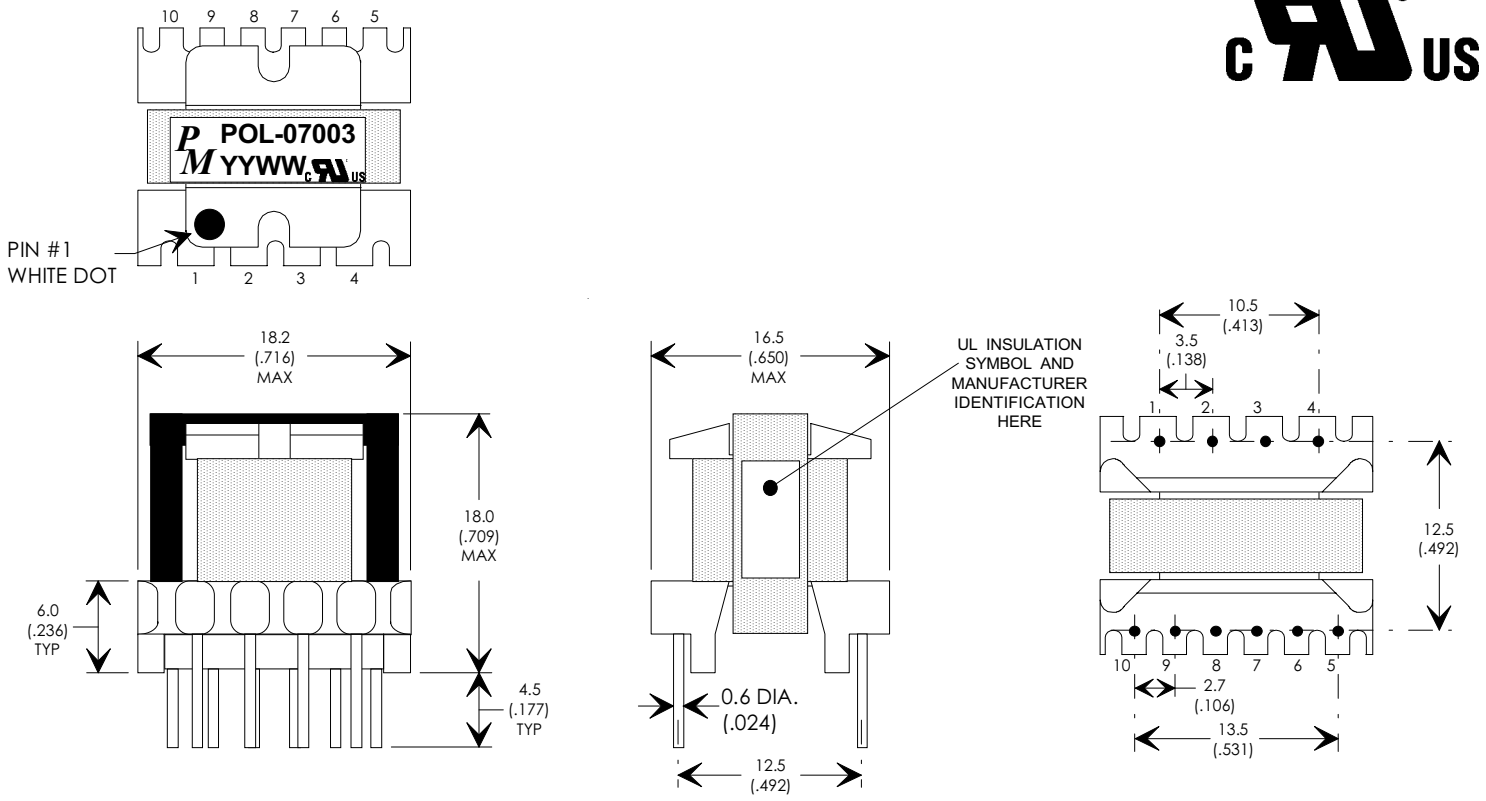
(1) REFER TO APPLICATION CIRCUIT OF FIGURE 3.

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)



REV.	DESCRIPTION OF CHANGES	BY
12/02/96	ORIGINAL RELEASE	AS
02/25/98	UPDATED MAX HEIGHT DIMENSION TO 18.0 (.709)	AS
05/05/99	UPDATE TO UL CLASS (B) 130 INSULATION SYSTEM	MD
08/19/99	CORRECT P/N OF VR2 ON APPLICATION CIRCUIT	PP

EE16/EI16, 10-PIN VERTICAL

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-07003	REVISION: 8/19/99
ENGR: AL SANTOS	REF: PWR-TOP209PFI
APPD: TOM O'NEIL	SHEET: 1 OF

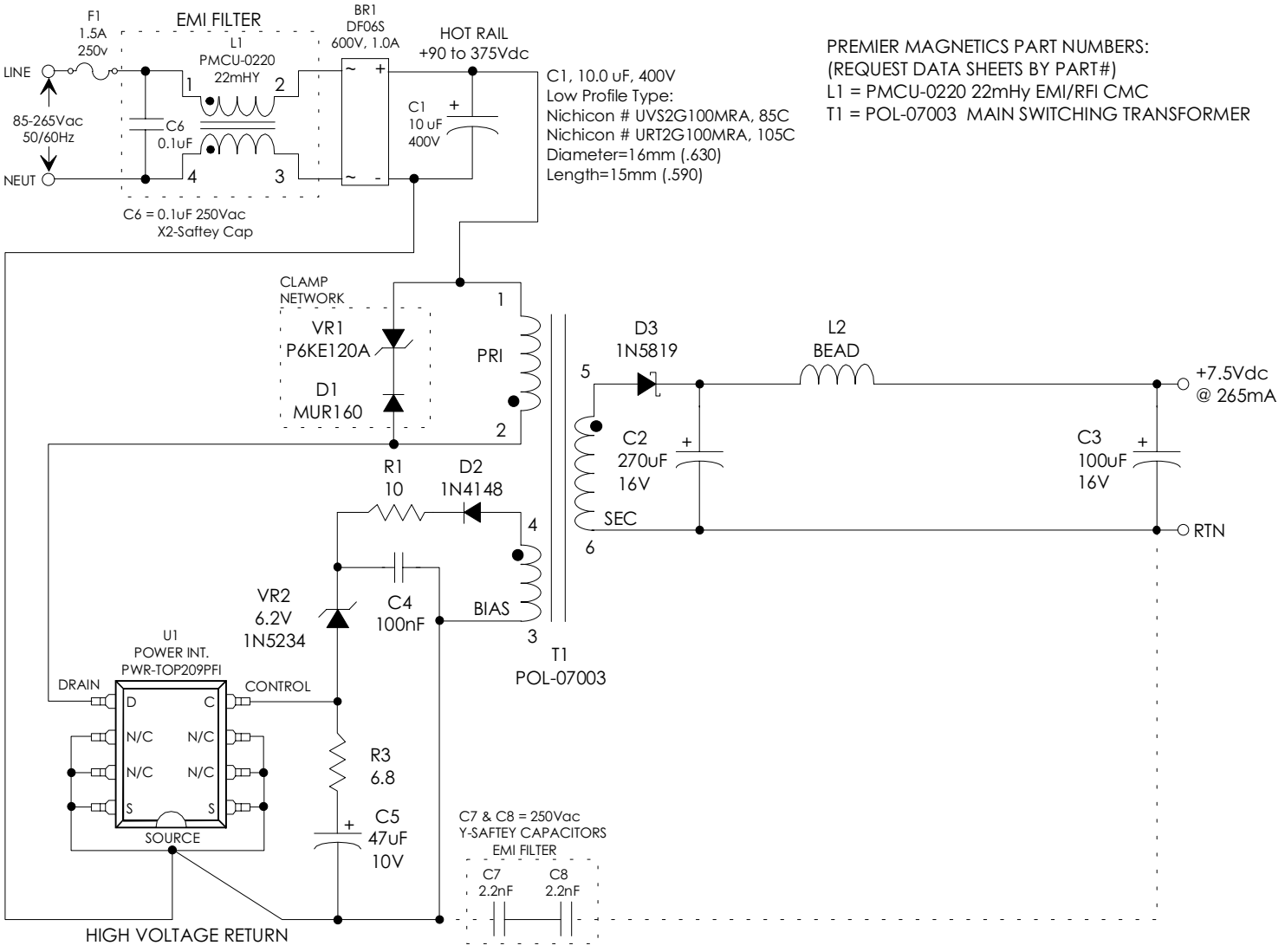
APPLICATION NOTES

Premier Magnetics' POL-07003 Switch Mode Transformer was designed for use with Power Integrations, Inc. PWR-TOP209PFI 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-07003 transformer has been optimized to provide maximum power throughput.

The PWR-TOP209 from Power Integrations, Inc. is a self contained 70KHz three terminal voltage controlled PWM switching regulators. This part contains all necessary functions for an off-line switched mode control DC power source. This switching regulator provides a very simple solution for 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, 2 watt application circuit utilizing Power Integrations PWR-TOP209 switching regulator in the flyback buck-boost configuration. This circuit provides +7.5Vdc at 265mA continuous and is capable of 300mA peak for short periods of time. This circuit represents the lowest cost implementation and utilizes the bias winding for feedback control. As such the line & load regulation are worse than that which could be achieved by utilizing an opto-coupler to sense the actual outputs. 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 ANGLES .X ± .25 ±0° 30' .XX ± .15 DO NOT SCALE DRAWING	**TRANSFORMER CONTROL DRAWING**
		PREMIER P/N: POL-07003 / REVISION: 8/19/99
		ENGR: AL SANTOS / REF: PWR-TOP209PFI
		APPD: TOM O'NEIL / SHEET: 2 OF