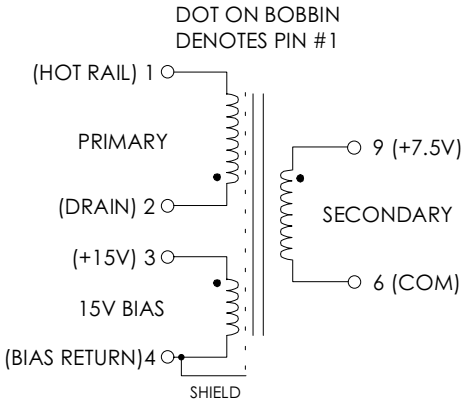
TABLE 1: ELECTRICAL SPECIFICATIONS AT 25 °C

SWITCHING TRANSFORMER DESIGNED FOR USE WITH POWER INTEGRATIONS TOP209P OR MOTOROLA S MC33363A SWITCH MODE CONTROLLERS.

PARAMETER	SPEC LIMITS MIN.	TYP.	MAX.	UNITS
PRIMARY INDUCTANCE (2-1) FREQ. = 100 KHZ @ 0.250Vrms	5.40	6.00	6.60	mHY
TURN RATIO'S:				
SECONDARY (9-6) : PRIMARY (2-1)	-------	1: 10.17	-------	± 4%
BIAS (3-4) : PRIMARY (2-1)	-------	1: 5.23	-------	± 4%
PRI LEAKAGE IND. (9-6 SHORTED) FREQ. = 100 KHZ @ 0.250Vrms	-------	240.0	290.0	µHY
HIPOT:				
PRIMARY TO SECONDARY	1500	-------	-------	Vrms
BIAS TO SECONDARY	1500	-------	-------	Vrms
APP CIRCUIT PARAMETERS: (1)				
DC HOT RAIL VOLTAGE	90	-------	375	Vdc
OUTPUT VOLTAGE		7.5		Vdc
OUTPUT CURRENT CONTINUOUS	0.010	-------	250	mA
OUTPUT CURRENT PEAK	-------	-------	300	mA
LINE REGULATION (85 TO 265Vac)	-------	1.50	-------	±%
LOAD REGULATION 10-100%	-------	5.00	-------	±%
RIPPLE	-------	50.0	-------	±mV

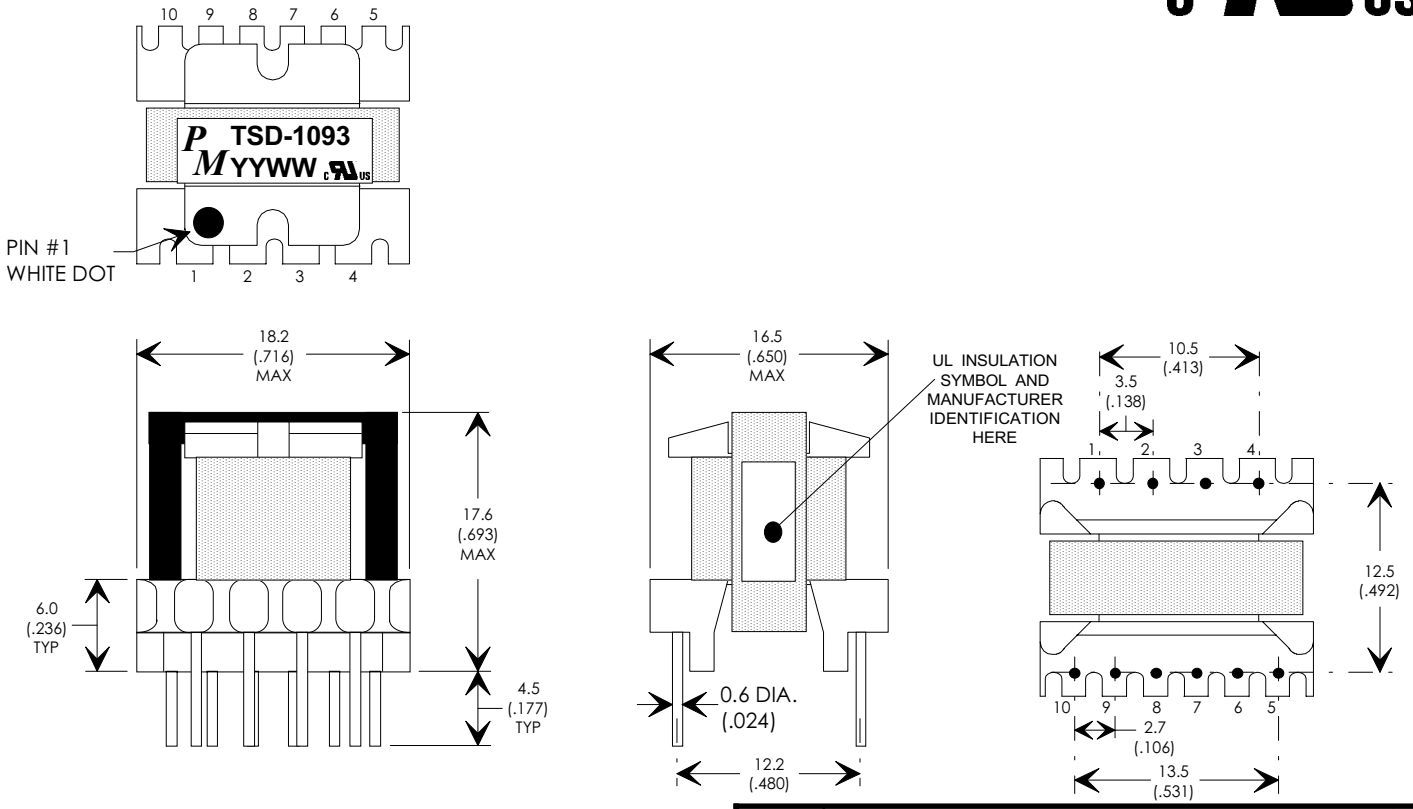
(1) REFER TO GENERAL APPLICATION CIRCUIT OF FIGURE 3.

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) VARNISH FINISHED ASSEMBLY.
D) UL1950 & CSA-950 CERTIFIED: FILE #E162344.
E) UL CLASS (B) 130 INSULATION SYSTEM PM130-H1A (UL FILE #E177139) OR ANY UL AUTHORIZED CLASS (B) INSULATION SYSTEM.

FIGURE 2: PHYSICAL DIMENSIONS mm (INCHES)



REV.	DESCRIPTION OF CHANGES	BY
09/08/97	ORIGINAL RELEASE, SHIELDED VERSION OF TSD-1084	TO
06/08/99	UPDATED TO UL CLASS (B) 130 INSULATION SYSTEM	MD

EE16/EI16, 10-PIN VERTICAL

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

FLYBACK TRANSFORMER CONTROL DRAWING

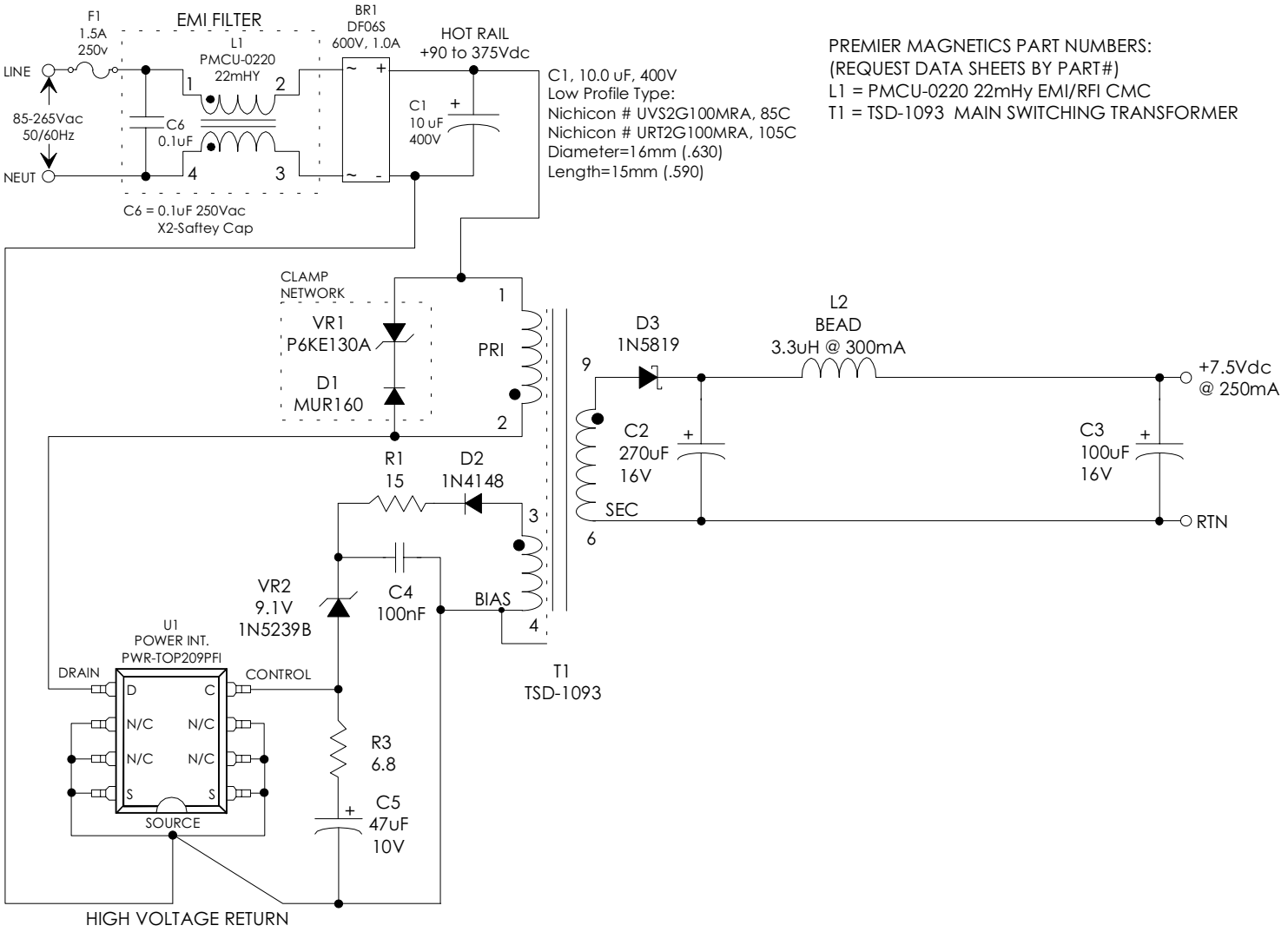
PREMIER P/N: TSD-1093	REVISION: 06/08/99
DRAWN BY: TOM O'NEIL	REF: TOP209/MC33363A
SCALE: NONE	SHEET: 1 OF 4

APPLICATION NOTES

Premier Magnetics' TSD-1093 Shielded Switch Mode Transformer was designed for use with Power Integrations, Inc. PWR-TOP209P three terminal off-line PWM switching regulator or Motorolas MC33363A Switching Regulator in the Flyback Buck-Boost circuit configuration. This conversion topology can provide isolated multiple outputs with efficiencies up to 90%. Premiers' TSD-1084 transformer has been optimized to provide maximum power throughput while allowing the use of either controller.

Below is a universal input, 1.9 watt application circuit utilizing Power Integrations TOP209, 70KHz switching regulator in the flyback buck-boost configuration. This circuit provides +7.5Vdc at 250mA 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. The component values listed are intended for reference purposes only. The maximum duty cycle has been designed for 46% allowing the MC33363A to be utilized without resistor "RD". The MC33363A would utilize an RT=39K and a CT of 500pF. This sets the peak current limit of the SeneseFET to about 250mA while providing a nominal 70KHz switching frequency.

FIGURE 3: TOP209P TYPICAL APPLICATION CIRCUIT



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	**FLYBACK TRANSFORMER CONTROL DRAWING**
		PREMIER P/N: TSD-1093 — REVISION: 06/08/99
		DRAWN BY: TOM O'NEIL — REF: TOP209/MC33363A
		SCALE: NONE — SHEET: 2 OF 4