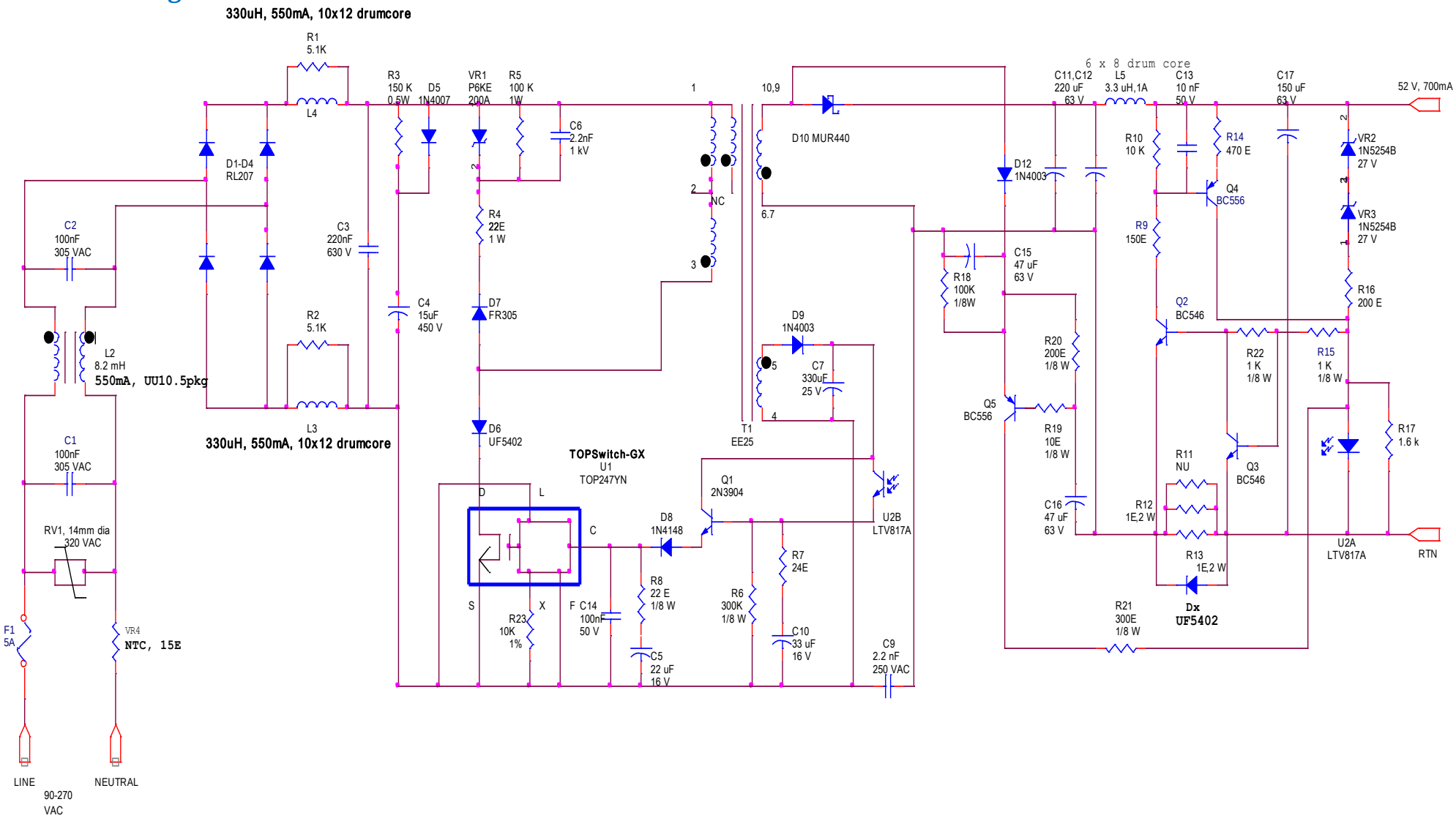
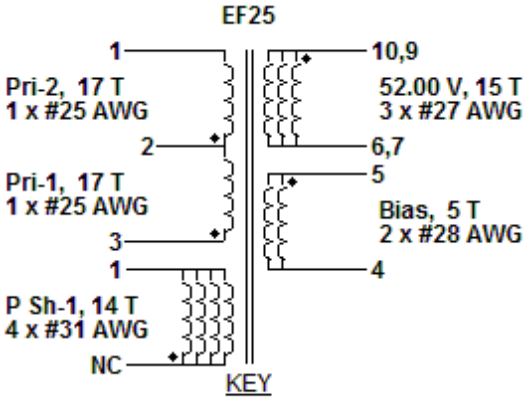
Schematic Diagram:

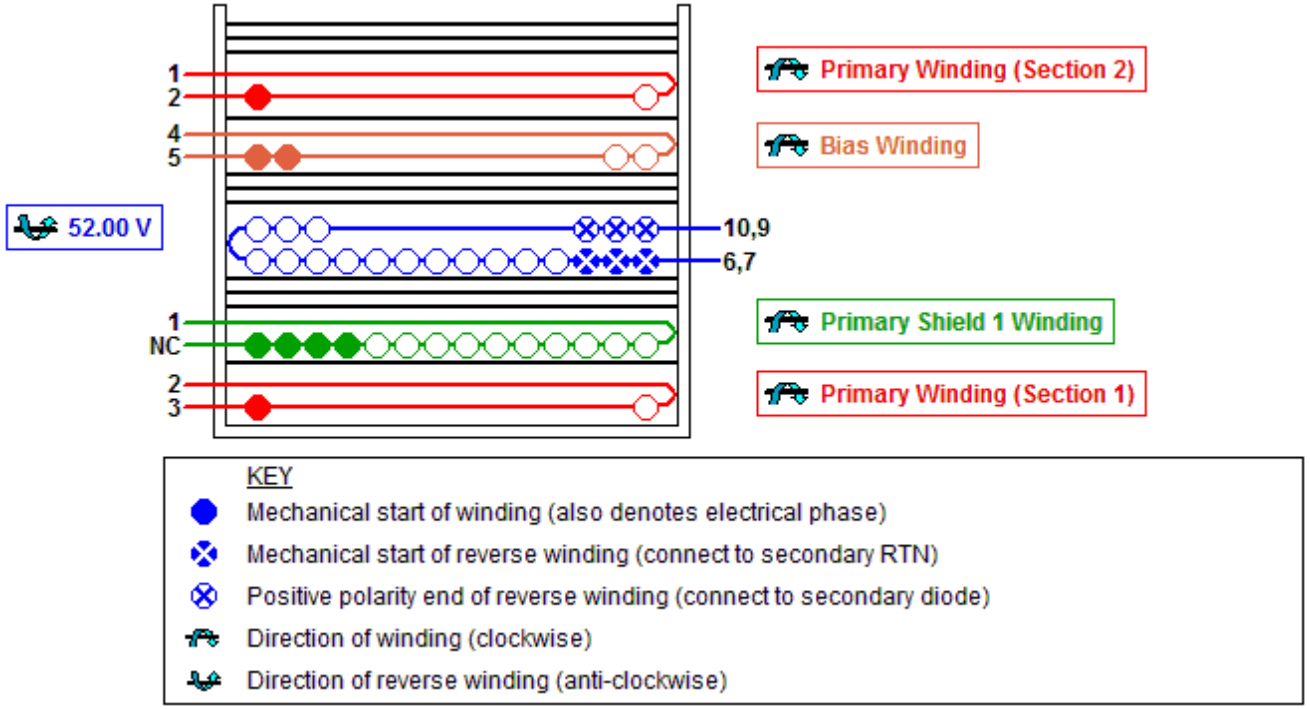


Electrical Diagram



Pri-1 = Primary Winding (Section 1)
Pri-2 = Primary Winding (Section 2)
P Sh-1 = Primary Shield 1

Mechanical Diagram



Winding Instruction

Primary Winding (Section 1)

Start on pin(s) 3 and wind 17 turns (x 1 filar) of item [5] in 1 layer(s) from left to right. On the final layer, spread the winding evenly across entire bobbin. Finish this winding on pin(s) 2.

Add 1 layer of tape, item [3], for insulation.

Primary Shield 1 Winding

Start on any (temp) pin on the secondary side and wind 14 turns (x 4 filar) of item [6]. Wind in same rotational direction as primary winding. Spread the winding evenly across entire bobbin. Finish this winding on pin(s) 1. Cut out wire connected to temp pin on secondary side. Leave this end of primary shield winding not connected. Bend the end 90 deg and cut the wire in the middle of the bobbin.

Add 3 layers of tape, item [3], for insulation.

Secondary Winding

Start on pin(s) 6,7 and reverse wind 15 turns (x 3 filar) of item [7]. Spread the winding evenly across entire bobbin. Wind in opposite rotational direction as primary winding. Finish this winding on pin(s) 10,9.

Add 3 layers of tape, item [3], for insulation.

Bias Winding

Start on pin(s) 5 and wind 5 turns (x 2 filar) of item [8]. Wind in same rotational direction as primary winding. Spread the winding evenly across entire bobbin. Finish this winding on pin(s) 4.

Add 1 layer of tape, item [3], for insulation.

Primary Winding (Section 2)

Start on pin(s) 2 and wind 17 turns (x 1 filar) of item [5] in 1 layer(s) from left to right. On the final layer, spread the winding evenly across entire bobbin. Finish this winding on pin(s) 1.

Add 3 layers of tape, item [3], for insulation.

Core Assembly

Assemble and secure core halves. Item [1].

Varnish

Dip varnish uniformly in item [4]. Do not vacuum impregnate.

Comments

1. Pins 9 and 10 are electrically shorted to each other on the PCB via a copper trace.
2. Use of a grounded flux-band around the core may improve the EMI performance.
3. For non margin wound transformers use triple insulated wire for all secondary windings.

Materials

Item	Description
[1]	Core: EF25, NC-2H (Nicera) or Equivalent, gapped for ALG of 206 nH/T²
[2]	Bobbin: Generic, 5 pri. + 5 sec.
[3]	Barrier Tape: Polyester film [1 mil (25 µm) base thickness], 15.60 mm wide
[4]	Varnish
[5]	Magnet Wire: 25 AWG, Solderable Double Coated
[6]	Magnet Wire: 31 AWG, Solderable Double Coated
[7]	Magnet Wire: 27 AWG, Solderable Double Coated
[8]	Magnet Wire: 28 AWG, Solderable Double Coated

Electrical Test Specifications

Parameter	Condition	Spec
Electrical Strength, VAC	60 Hz 1 second, from pins 1,2,3,4,5 to pins 6,7,9,10.	2000
Nominal Primary Inductance, µH	Measured at 1 V pk-pk, typical switching frequency, between pin 1 to pin 3, with all other Windings open.	267
Tolerance, ±%	Tolerance of Primary Inductance	10.0
Maximum Primary Leakage, µH	Measured between Pin 1 to Pin 3, with all other Windings shorted.	6.68

Although the design of the software considered safety guidelines, it is the user's responsibility to ensure that the user's power supply design meets all applicable safety requirements of user's product.