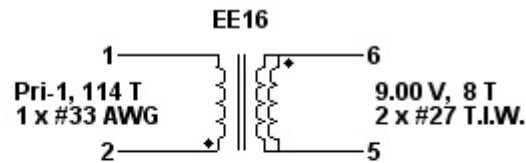


Transformer Construction

Electrical Diagram



KEY

Pri-1 = Primary Winding (Section 1)
 Pri-2 = Primary Winding (Section 2)
 C Sh = Cancellation Shield Winding
 P Sh = Primary Shield
 S Sh = Secondary Shield
 T.I.W = Triple Insulated Wire

Winding Order

Secondary Winding
 Primary Winding (Section 1)

Core Information

Core Type	EE16
Core Material	NC-2H or Equivalent
Estimated Gap length, mm	0.284
Gapped Effective Inductance, nH/t ²	79
Primary Inductance, uH	1021

Bobbin Information

Bobbin Reference	Generic, 2 pri. + 2 sec.
Bobbin Orientation	Horizontal
Number of Primary pins	2
Number of Secondary pins	2
Margin on Left, mm	0.0
Margin on Right, mm	0.0

Primary Winding

<i>Parameter</i>	<i>Section 1</i>
Number of Turns	114
Wire Size, AWG	33
Filar	1
Layers	2.90
Start Pin(s)	2
Termination Pin(s)	1

Secondary Winding

<i>Parameter</i>	<i>Output 1 (main)</i>
Spec Voltage, V	9.00
Spec Current, A	1.00
Actual Voltage, V	9.00
Number of Turns	8
Wire Size, AWG	27
Filar	2
Layers	1.04
Start Pin(s)	6
Termination Pin(s)	5

Winding Instruction

Primary Winding

Start on pin(s) 2 and wind 114 turns of item [5] in 3.00 layer(s) from left to right. At the end of 1st layer, continue to wind the next layer from right to left. At the end of 2nd layer, continue to wind the next layer from left to right. On the final layer, spread

the winding evenly across entire bobbin. Finish winding on pin(s) 1.

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

Secondary Winding

Start on pin(s) 6 and wind 8 turns (x 2 filar) of item [6]. Spread the winding evenly across entire bobbin. Finish on pin(s) 5.

Add 2 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. For non margin wound transformers use triple insulated wire for all secondary windings.

▼ Materials

<i>Item</i>	<i>Description</i>
[1]	Core: EE16, NC-2H or Equivalent, gapped for ALG of 79 nH/t²
[2]	Bobbin: Generic, 2 pri. + 2 sec.
[3]	Barrier Tape: Polyester film 8.50 mm wide
[4]	Varnish
[5]	Magnet Wire: 33 AWG, Solderable Double Coated
[6]	Triple Insulated Wire: 27 AWG

▼ Electrical Test Specifications

<i>Parameter</i>	<i>Condition</i>	<i>Spec</i>
Electrical Strength, VAC	60 Hz 1 minute, from pins 1 - 2 to pins 5 - 6.	3000
Nominal Primary Inductance, uH	Measured at 1 V pk-pk, typical switching frequency, between pin 1 to pin 2, with all other Windings open.	1123 +/- 10%
Primary Leakage, uH	Measured between Pin 1 to Pin 2, with all other Windings shorted.	33.70 Goal

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.

The products and applications illustrated herein (including circuits external to the products and transformer construction) may be covered by one or more U.S. and foreign patents or potentially by pending U.S. and foreign patent applications assigned to Power Integrations. A complete list of Power Integrations' patents may be found at www.powerint.com.